



1-2 March 2011 ERA.NET-RUS PARTNERING EVENT

EXPERTS' PROFILES BROCHURE





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Innovation projects

Germany

Dipl. Ing Heiko Behner

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First name	Heiko	Heiko									
Last name	Behner										
Position General Manager											
ORGANISATION	DETAILS										
Organisation name	BD Comr	nunicat	ion Servi	ce GmbH							
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Employees	2 1-10				5 1	- 250	250 +				
Organisation type	Higher Institution	Education	on	Re Institu	esearch ution		x Company	other			
Department	New Techn	ologies	S								
Short description of your company or organization											
TOPICS OF INTE	EREST REGA	RDIN	G THE C	ALL FOR	R "INN	OVATION	PROJECTS"				
Sub-topic of expertise	ICT		x Materia	als	Hea	lth	Environment and Climate	Production Technologies			

Space

Transport

Energy

Biotechnology

Optical Technologies





Other (Free keywords	new technology of fire protection material with low weight and high thermic efficiency

PROJECT IDEA(S)	
Short description of project	The company TIZOL is producer of several fire protection and thermic isolation materials on basalt fiber technology. This technology has no analog in Europe and US. We would like to approve this technology and the products for European market.
Description of scientific expertise offered	The technology is 100 % owned by TIZOL OAO. We are able to make more customized products based on this technology.
Description of technical expertise offered	
Description of requested partner scientific expertise	We are looking for Testing institute in Europe with knowledge in aircraft, space and building industry. We would like to approved and certificate the products for European Standards.
Description of requested partner technical expertise	Institute or company with access to aircraft and space about technical isolation.
Potential partners (name, organisation, address)	"Tisol" JSC, 624223 Russia, Sverdlovsk region, Nizhnyaya Tura, Malyshev street 59 www.tisol.ru MPA Dresden GmbH Fuchsmuehlenweg 6F, 09599 Freiberg www.mpa-dresden.de BK Impex Story OOO, Lomanaya Street, 11, St. Petersburg, www.baltcomplect.ru





Ywes Israel

D												
PARTICIPANT												
Gender	🖸 Mr	☐ Ms		Title								
First name	Ywes	Ywes										
Last name	Israel, Mr.											
Position	osition COO											
ORGANISATION	N DETAILS											
Organisation name	TimeKon	or AG										
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Email * ywes.is	srael@timekor	ntor.de		Web y	www.timekontor	<u>.de</u> /	www.nest-telemedi	zin.de				
Employees	1-10		11 - 50	0	51 - 250		250 +					
Organisation type	Higher F Institution	ducation	1	Re Institu	esearch		Company	other				
Department	Healthcare											
Short description of your company or organization	TimeKontor AG has established itself as a competent and accepted network between science, econom and politics in the sector of information and communication technology. The main working areas an "eHealth/Telemedicine", "Serious Games" and "Green IT". The activities include the identification and							e main working areas are lude the identification and of innovative projects, tutions and companies.				
TOPICS OF INTI	EREST REGA	RDING	THE CA	LL FOR	"INNOVATIO	ON]	Projects"					
Sub-topic of expertise	ICT Biotechn		Material Energy		Health Space		Environment and Climate Transport	Production Technologies Optical Technologies				

PROJECT IDEA(S)

Other (Free keywords)





	In 2009, the Russian Federal State Statistics Service and the Institute of Pulmonology conducted a study using the World Health Organization's methodology for the first time to assess the state of smoking in Russia. Smoking accounts for 17% of all deaths in Russia. Every year 400,000 Russians die from diseases caused by smoking. In addition, 80% of Russian citizens are exposed daily to second-hand smoke - everyone who is surrounded by smokers. The total number of smokers in Russia is 43.9 million, which is 39.1% of the country's population. Russia is the world's leader in consuming tobacco. Early the same problems occur in Turkey and Greece.							
Short description of project	system. The approach of SQUIN (as for smoke-quit-win) is to improve the existing cessation process of would-be non-smokers significantly regarding the range and success rate. Therefore the e-Therapy uses innovations from the gaming industry in terms of serious gaming. With the implementation on mobile devices SQUIN is a permanently accessible group- and behavior therapy.							
	Because SQUIN is based on an actual group therapy developed by the IFT (Institute of Therapy Research), the focus is on community tools. Social communities similar to Facebook or others are developing to one of the most important game platforms. SQUIN uses motivating game elements like leveling, scoring, ranking, reputation and awarding for therapeutic reasons. Despite the core therapy SQUIN offers additional content such as anti-stress-training, mindfulness based relapse prevention and other.							
	TimeKontor AG is developing this online smoking cessation here in Germany together with Morgen Studios (game development company working on several e-learning applications and communities) and the AOK (regional health insurance fund).							
Description of scientific expertise offered	We can offer knowledge and scientific expertise on smoking cessation and e-therapy. As member of the National Association of eHealth and Telemedicine we have access to different player in the health sector, from hospitals, research institutions to companies in the sector.							
Description of technical expertise offered	We offer technical expertise on the transformation of offline therapies to online media; web applications for the health care sector.							
Description of requested partner scientific expertise	We are looking for research partners in developing the online-cessation tool according to the Russian (and Turkish) medical experiences and needs in therapy, e.g. health centers for children and teenagers.							
Description of requested partner technical expertise	Realization and/ or adaption of the to be developed system for the Russian (and Turkish) market.							
Potential partners (name, organisation, address)	Tembit, Berlin							





Dr.-Ing. Uwe Reichel

PARTICIPANT										
Gender	🔲 Mr	🔲 Ms		Title	Title DrIng.					
First name	Uwe									
Last name	Reichel									
Position	Scientist, Project manager									
ORGANISATION DETAILS										
Organisation name	Fraunhofe	er Institut fo	or Cerai	mic Tech	nnologi	ies and Syster	ns IKTS, Hermsdor	rf branch of institut		
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Employees	1-10		11 - 50	50 51 - 250 250 +						
Organisation type	Higher F	Education		X Res Institu			Company	other		
Department	Oxide cerai	nic compo	nents ar	nd systen	ns					
Short description of your company or organization										
	The Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden and Hermsdorf, covers the complete field of advanced ceramics, from basic research to applications. Our services include the development and application of modern advanced ceramic materials, the development of industrial powder metallurgical technologies, and the manufacturing of prototypical components. Structural ceramics, functional ceramics and cermets set up the priorities with emphasis on innovative complex systems which are applied in many industry sectors.									

TOPICS OF INT	EREST REGARDING	G THE CALL FO	OR "INNOVATIO	n Projects"	
Sub-topic of	ICT	X Materials	X Health	Environment and Climate	X Production Technologies
expertise	Biotechnology	Energy	Space	Transport	X Optical Technologies
Other (Free keywor	rds) Ceramic mate	erials and technolo	gy, Nanotechnology		





PROJECT IDEA(S)	
Short description of project	Setting-up of high-technology implants production from nanostructured biocompatible ceramics replacing metal implants
Description of scientific expertise offered	 For the project we have a Vision to develop nanostructured ceramic materials with improved properties. We offer the scientific expertises on the field of Nano-Technologies as follows: Characterize and processing of sub-μm- and nano-Powders Mixing, homogenizing and coating of nano-Powders with organic temporary additives and development of surface modified powders Development of nanostructured ceramics and composite materials for special applications Industrial processing technologies for forming and thermal technology Ceramic materials with improved properties: strength, hardness, reliability, biocompatibility, thermal and chemical resistance
Description of technical expertise offered	The Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden and Hermsdorf, covers the complete field of advanced ceramics, from basic research to applications. Our services include the development and application of modern advanced ceramic materials, the development of industrial powder metallurgical technologies, and the manufacturing of prototypical components. Structural ceramics, functional ceramics and cermets set up the priorities with emphasis on innovative complex systems which are applied in many industry sectors. One of the main emphasis at the Hermsdorf branch of the institute is the development of high-performance oxide ceramics and the manufacturing technology for it. We are equipped with the complete ceramic technology for powder processing, moulding, sintering and machining.
Description of requested partner scientific expertise	Experience in the development of ceramic nano-powders and composite powders with properties for applications in medicine; Experience in testing and application of biocompatible materials
Description of requested partner technical expertise	Experience in manufactoring of ceramic nano-powders and composite powders with properties for applications in medicine; Experience in testing and quality control
Potential partners (name, organisation, address)	1. TPU Nano-Centre (Prof. Oleg Khasanov; khasanov@tpu.ru; http://portal.tpu.ru/departments/centre/nano/eng; 30, Lenin Ave., Tomsk Polytechnic University, Tomsk, 634050, Russia. Tel./fax +7(3822)427242). 2. Holding JSC "NEVZ-Soyuz" (Mrs. Anastasiya Medvedko; marketing@nevz.ru; http://ru.nevz.ru/; 220 Krasnyi prospect, Novosibirsk, 630049, Russia. Tel. +7(383)2106284; Fax +7(383)2258275). 3. Glonatech S.A. (Dr. Stephanos Nitodas; snitodas@glonatech.com, http://www.glonatech.com, 401, Mesogion Avenue, Aghia Paraskevi, Athens, 15343, Greece, Tel.:+30-210-6085648, +30-210-6083465, Fax.:+30-210-4310875)





Mr Markus Schroeder

PARTICIPANT							
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Last name	Schroeder						
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ORGANISATION	N DETAILS						
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Phone * +49 30	4303 3111		Fax	+49 30 4303 3	122		
Email * schroed	der@tembit.de	2	Web	www.tembit.de	e		
Employees	1-10	(31)	50	51 - 250		250 +	
Organisation type	Higher Institution	Education	R Instit	esearch ution		Company Company	other
Department	Healthcare						
Short description of your company or organization	Tembit Software GmbH offers innovative standard products as well as consulting and realization projects for the fields of Finance and Healthcare. A special focus of the company is placed on web-based applications (Internet, Intranet, Web Services). Tembit has a powerful own framework with which the standard functions of each application are available out of the box. For the field of Healthcare we have developed amongst others solutions with which patient data are exchanged via the Internet between patients, doctors and clinics safely using pseudonyms and conform with data protection and pharmaceutical groups and their service providers exchange data of clinical and pharmacogenetic trials. In the field of Healthcare the development processes are coordinated to be able to smoothly integrate further quality requirements. Tembit works according to the standards Good						
	Clinical Presuccessfully The headqu	ractise (GCP) a y carried out in valuaters of Tembi	and CRF various protein to is in Be	21 Part 11. ojects.	Soft uest o	ware validation an	d risk assessment were vices-Teams work on site

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"					
Sub-topic of expertise	ICT	☐ Materials	⊠ Health	Environment and Climate	Production Technologies

Since 1992 Tembit has been successfully carrying out projects. We have worked on site for international customers in interdisciplinary teams.





	Biotechnology	Energy	Space	Transport	Optical Technologies
Other (Free keywords)	International	data protection and	l privacy		

PROJECT IDEA(S)	
Short description of project	Installation, operation and establishment of the generic electronic health record mdoc to monitor and document major children's diseases like Rubella, Pertussis, Poliomyelitis in urban and rural areas of the Russian Federation using telemedicine and Internet technology Security, Mobility and Compliance – three conditions to improve patient's care with modern telemedicine technology. These three conditions accompanied by increasing responsibility for both patients and physicians lead to less visits without losing quality of care. The active patient provides regularly data to feed his/her patient profile and support in this way the data basis to get the best individual treatment and long term care Tembit Software GmbH provides a basic technology to manage patient related medical data including treatment and etiopathology data as well as information about quality of care for children's diseases. A network of research oriented clinics and supporting physicians in smaller hospitals will monitor and document disease parameter to get longitudinal data for better analysis and treatment decisions. Due to a centralized data base concept and internet technology no local installation is necessary. Updates and project progress can be administered and controlled by only one single function for a healthcare network with many clinics and many patients.
Description of scientific expertise offered	Tembit can offer knowledge and scientific expertise on professional data collection, analysis and reporting for several indications like Multiple Sclerosis, Pain, and Peritoneal Dialysis. Our experiences are based on a long term cooperation in several projects with the Charité (Berlin) or Vivantes (Berlin) and the Berlin section of the MS-Society, Germany
Description of technical expertise offered	Tembit offers experiences regarding patient documentation, security, data protection and pseudonymization of patient related data. Tembit's quality system is certified conform to ISO 9001-2008 and very familiar with patient related data handling via internet and telemedicine infrastructure
Description of requested partner scientific expertise	We are looking for a research oriented pediatric clinic to host application and to develop standardized guidelines in pediatric care (for selected indications like Pertussis, Tuberculosis Poliomyelitis, Rubella and other major children's diseases), and a network of cooperation clinics (larger clinics and polyclinics) that want to support the idea of standardized monitoring and documentation to improve children care.
Description of requested partner technical expertise	Local partner(s) that bring the corporately developed Internet application to the Russian market
Potential partners (name, organisation, address)	TimeKontor AG, Berlin, Germany,





<u>Greece</u>

Mr Nikou Christoforos

PARTICIPANT						
Gender	🔲 Mr	☑ Ms	Title			
First name	Nikou					
Last name	Last name Christoforos					
Position	Liaison O	office Responsible				
ORGANISATION						
Organisation name		SITY OF IOANN				
Street *		ISTIMIOUPOLI I				
ZIP * 451 10		City * IOANN		* GREECE		
Phone * 2651007			Fax 2651007029			
Email * liaison@	<u>wcc.uoi.gr</u>		Web liaison.cc.uoi.gr ((current URL, will be changed soon)		
Employees	1-10	11 - 50	51 - 250	250 + XXX		
Organisation type	☑ Higher Education ☑ Research Institution ☐ Company ☐ other					
Department	LIAISON	OFFICE, REPR	ESENTING ALL UNIV	ERSITY DEPARTMENTS		
Short description of your company or organization Today, the University of Ioannina includes 17 academic Departments which altogether number undergraduate students. A number of organised postgraduate study programmes are on o combine taught and research elements both at Master's and Doctoral level. Approximate students are involved in full-time study mode progressing to a Master's degree, while 2,217 students are involved in full-time study mode progressing to a Master's degree, while 2,217 students are involved in full-time study mode progressing to a Master's degree, while 2,217 students are involved in full-time of Philosophy (Department of Philosophy, Department of Philosophy, Education and Psychology)			mic Departments which altogether number 13,523 stgraduate study programmes are on offer that ster's and Doctoral level. Approximately 1,300 sing to a Master's degree, while 2,217 students are ang Schools and Departments:			
	School of Sciences (Department of Mathematics, Department of Physicsm, Department of Chemistry, Department of Computer Science) School of Education (Department of Primary School Education, Department of Pre-School Education) School of Medicine School of Sciences and Technologies (Department of Materials Science and Engineering, Department					
of Biological Applications and Technologies) School of Natural Resources and Enterprises Management (Department of Business Admin of Food and Agricultural Products, Department of Environmental and Natural Resources Mana Department of Economics Department of Plastic Arts and Art Sciences Department of Cultural Heritage Management and New Technologies			vironmental and Natural Resources Management)			





The University of Ioannina has proven a long-term experience in implementing, managing, monitoring, and controlling several research, educational and development projects. Furthermore several infrastructural development and equipment supply projects have been carried out, along with many training projects.

The University of Ioannina has established a quality management system that is in conformance with the International Management System Standard ISO 9001:2000, as well as the Greek Management Efficiency Standard, with a scope of "Project Management of Research and Development of Technological and Other Related Programs and Activities".

High quality research activity is implemented in every aspect of the scientific areas covered by the existing departments, including basic and applied research in information and communication technologies, engineering, science, arts, medicine, biology, new materials, economic studies, environment, philosophy, psychology, history and archaeology, Greek literature, linguistic studies and training methods.

The interdisciplinary applied research projects are well emphasized as they are considered to be of high importance for the Greek industry, economy and society. Research is mainly financed by the European Commission, the Greek Ministry of Education, Lifelong Learning and Religions, the Greek General Secretariat of Research and Technology as well as other funding sources.

Grand research projects are financed by the late Ministry of Development (now Ministry of Environment, Energy and Climate Change), while many International Organizations assist both the University of Ioannina research staff and the postgraduate students in their research activities by financing research project proposals.

Furthermore many research groups from both the University of Ioannina and other Greek or foreign institutions are collaborating under several international research programs.

Today, the University of Ioannina participates in the development of several research projects in the scientific areas of science, chemistry, new materials, biochemistry, biology, biomedicine, environment, education technologies and science, arts, as well as information and communication technologies.

TOPICS OF INTE	REST REGARDING	G THE CALL FOR	"INNOVATION	PROJECTS"	
Sub-topic of expertise	ICT Biotechnology	Materials Energy	Health Space	Environment and Climate Transport	Production Technologies
Other (Free keyword	(s) Environmen	tal Analytical Chem	istry. Environment	al Technology, Advance	Technologies
PROJECT IDEA(5	

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	PROGRAMME
	INFORMATION PROVIDED BY: Triantafyllos Albanis, Rector, Professor of Biomechanical Chemistry, Department of Chemistry
Short description of project	Scientific interest of catalytic water phase processes has awakened within the past 10 years. For the time being catalytic water treatment processes are for very limited use only. Many industrial waste streams are not suitable for biological processes due to their inherent toxicity, but their treatment by traditional non-catalytic chemical processes or by incineration may be too energy intensive. Quality problems of groundwater and freshwater along with better understanding of importance of drinking water quality have already generated several decontamination methods relying on the formation of highly reactive chemical species, which are capable of destroying and eventually mineralize organic micropollutants. The objective of the present proposal is to develop the heterogeneous water phase photocatalysis as an environmental application for the removal of organic micro-pollutants and the water detoxification. More specific the photocatalytic efficiency will be examined in terms of: ii) the evaluation of the degradation kinetics of selected pharmaceutical compounds by using gas and liquid chromatography. iii) monitoring of the evolution of CO2 and of the main inorganic ions produced during the process. iv) toxicity evaluation of the long-lived transformation products. v) determination of the main transformation products by using gas or liquid chromatography coupled to mass spectroscopy techniques.
Description of scientific expertise offered	 Environmental Chemistry of pesticides and related organic micropollutantts. Transportation of pesticides in environmental ecosystems. Development of analytical methods for pesticide and related organic micropollutnats determination in environmental compartments, agricultural and food products. Adsorption and photodegradation of pesticides under laboratory and field conditions. Techniques for organic micropollutants removal from wastewater, surface and ground waters.
Description of technical expertise offered	Gas and liquid chromatographic techniques such as GC/FID, GC/ECD, GC/FTD, GC/MS, HPLC/UV-DAD, LC/MS, extraction techniques such as LLE, SPE, SPME, DLLME, SDME
Description of requested partner scientific expertise	 Development and application of analytical methods for the identification, structural characterisation and quantification of trace concentrations of organic micropollutants in environmental matrices, food samples and biological samples Study of the environmental fate (kinetics and mechanisms) of organic micropollutants and toxicity assessment Development of Advanced Oxidation Processes (AOPs) for the mineralization of organic micropollutants transfer and environmental fate of organic minor-pollutants Toxicity Assessment
Description of requested partner technical expertise	Gas and liquid chromatographic techniques such as GC/FID, GC/ECD, GC/FTD, GC/MS, HPLC/UV-DAD, LC/MS, extraction techniques such as LLE, SPE, SPME, DLLME, SDME
Potential partners (name, organisation, address)	





PROJECT IDEA(S)	: 2
	INFORMATION PROVIDED BY:
	Vasileios Sakkas, Lecturer, Department of Chemistry
Short description of project	In recent years, personal care products (PCPs) have been addressed to an increasing interest. Activities such as cleaning, washing of textiles, personal care or material protection may generate the release of hazardous chemicals incorporated in products into wastewater. In spite of substantial technological advances in analytical field, most instruments cannot directly handle complex sample matrixes yet. As a result, a sample-preparation step is commonly involved before instrumental analysis. The main aim of sample preparation is to clean up and concentrate the analytes of interest, while rendering them in a form that is compatible with the analytical system. Under the proposed project rapid, sensitive and simple analytical microextraction methods for the determination PCPs in water samples mated to chemometrics and coupled to modern GC/MS and LC/MS techniques will be developed.
Description of scientific expertise offered	 Development and application of analytical methods for the identification, structural characterisation and quantification of trace concentrations of organic micropollutants in environmental matrices, food samples and biological samples Analytical separations, Microextraction techniques, Gas/Liquid Chromatography, Mass Spectrometry Chemometrics, Statistical treatment of data and Quality Control Study of the environmental fate (kinetics and mechanisms) of organic micropollutants and toxicity assessment Development of Advanced Oxidation Processes (AOPs) for the mineralization of organic micropollutants
Description of technical expertise offered	Gas and liquid chromatographic techniques such as GC/FID, GC/ECD, GC/FTD, GC/MS, HPLC/UV-DAD, LC/MS, extraction techniques such as LLE, SPE, SPME, DLLME, SDME
Description of requested partner scientific expertise	 Novel microextraction analytical methods for the determination of organic micropollutants in environmental matrices, food samples and biological samples Analytical separations, Gas/Liquid Chromatography, Mass Spectrometry Chemometrics, Statistical treatment of data and Quality Control
Description of requested partner technical expertise	Gas and liquid chromatographic techniques such as GC/FID, GC/ECD, GC/FTD, GC/MS, HPLC/UV-DAD, LC/MS, extraction techniques such as LLE, SPE, SPME, DLLME, SDME
Potential partners (name, organisation, address)	

Project idea(s): 3				
Short description of project	INFORMATION PROVIDED BY: Anastasios Troganis, Assistant Professor, Department of Biological Applications and Technologies			





	Synthesis of anti-cancer drugs that will be used in prostate cancer patients. Structural studies of the drugs by NMR techniques in combination with computational analysis in solution. Studies of the interaction of the drugs with the hormone receptor, using spectroscopic techniques (NMR, fluorescence, etc)
Description of scientific expertise offered	Deep knowledge in NMR techniques, especially structure elucidation of small molecules, peptides and proteins.
Description of technical expertise offered	Three NMR instruments operating on 250, 400 and 500 MHz, one LC-SPE-NMR unit.
Description of requested partner scientific expertise	Knowledge in spectroscopic techniques, focused on protein interactions.
Description of requested partner technical expertise	Fluorescence, UV-Visible, Laser
Potential partners (name, organisation, address)	Eugene A. Permyakov Institute for Biological Instrumentation of the Russian Academy of Sciences, Pushchino, Moscow region 142290, Russia

PROJECT IDEA(S)	PROJECT IDEA(S): 4				
Short description of project	INFORMATION PROVIDED BY: Dimitrios Fotiadis, Professor of Biomedical Technology, Department of Department of Materials Science and Engineering Reinforce the results from EU funded project PERFORM in which UOI participates as a key partner. The project aims to tackle problems associated with the efficient remote health status monitoring, the qualitative and quantitative assessment and the treatment personalisation for people suffering from neurodegenerative diseases and movement disorders, such as Parkinson's disease (PD). The project aspires to research and develop an innovative, intelligent sensory system for monitoring neurodegenerative disease evolution through the employment of a wide range of wearable microsensors, advanced knowledge processing and fusion algorithms. Advanced sensors, attached to everyday personal gadgets (e.g. cloths, accessories) will be able to "sense" the user's health status and alert him and his caregivers in the detection of events. The acquired data are further analysed and used for supporting neurologists' decisions.				
Description of scientific expertise offered	The Unit of Medical Technology & Intelligent Information Systems (MedLab) is a highly innovative and self-contained research unit, which resides at the Dept. of Materials Science and Engineering of the University of Ioannina. The Unit is strongly activated in the fields of Biomedical Engineering and Intelligent Information systems. It has an internationally acknowledged excellence in conducting high quality scientific research and developing innovative Information Technology (IT) applications, products and services. MedLab's research activities cover a variety of subjects and they are classified				





	PROGRAMME
	into the following domains: Biomedical Research, Automated Diagnosis, Biomagnetism and Biomaterials, Bioinformatics, Networks, Medical Informatics.
	Signal processing and data analysis (performed both from computer science/ software engineers and from neurologists) are implemented.
	Through its collaborations in the framework of European and nationally funded projects, like I-WAY, INTREPID, NEOMARK, PERFORM, POCEMON, UoI has gained profound expertise in intelligent information systems, healthcare systems, early diagnosis models, data analysis and mining, intelligent monitoring modules, semantic enrichment and decision support systems.
Description of technical expertise offered	A prototype (consisting of a wearable vest in which sensors are attached) for monitoring Parkinson's disease progression is already available.
Description of requested partner scientific expertise	Data acquisition from patients suffering from Parkinson's (enlarge the data set). Collaboration for signal processing and data analysis of the enlarged data set. Run pilots for validation of the study results.
Description of requested partner technical expertise	Refine the prototype (eg by attaching up-to-date sensors) in order to make it more acceptable from the patients.
Potential partners (name, organisation, address)	

PROJECT IDEA(S)	:5
	INFORMATION PROVIDED BY: Ioannis Leonardos, Associate Professor, Department of Biological Applications and Technologies
Short description of project	There are some non –indigenous to the fish fauna of Europe and Russia species like those of genus Carassius (Carassius gibelio, Carassius auratus etc). These have colonized the most of European and Russian freshwater ecosystems. With its introduction contributes significantly to the degradation of the ecosystems, influencing biotic and abiotic parameters of the water. The alien species are considered as among the most invasive and hazardous for the native fish communities. Parameters of his life traits of these species allow entering and occupying rapidly the inland aquatic ecosystems. The rapid spread and dominance is attributed to his resistance to adverse environmental factors along with their reproductive strategy. The study of the life traits of the alien fish species are among the aims of this project.
Description of scientific expertise offered	Among the subjects of the Laboratory of Zoology of Biological Applications and Technology Department of the University of Ioannina are the study of the fish fauna and the fish populations of inland waters. The fish biology, ecology, life traits and population dynamics, and their interaction with other species and/or with the aquatic ecosystem are among our interests. Innovative methods include the genetic and molecular analysis, karyotypic analysis, morphometric analysis are used in the study of populations from various ecosystems. From the other part the alien invasive species and their strategies that they demonstrate for the colonization of the aquatic





	FROGRAMME
	ecosystems are among our interests.
	Expertise provided for the project idea:
	Biology and Ecology of Aquatic organisms and especially fish.
Description of technical expertise offered	Innovative methods include the genetic and molecular analysis, karyotypic analysis, morphometric analysis are used in the study of populations from various ecosystems
Description of requested partner scientific expertise	Fish Biology, Ecology of aquatic organisms, aquaculture, fisheries
Description of requested partner technical expertise	Methods in fish biology
Potential partners (name, organisation, address)	

PROJECT IDEA(S)	6
	INFORMATION PROVIDED BY: Christoforos Nikou, Assistant Professor, Department of Computer Science
Short description of project	Our main target is the application of artificial intelligence methods to biology and medicine. More specifically, we envisage the development of automated image analysis tools to assist: • The diagnosis of cancerous cervical cells from cytological images. • The detection of genetic anomalies from images of chromosomes.
	 The analysis of 3D brain images for the diagnosis of neurodegenerative diseases such as schizophrenia, Alzheimer and epilepsy. The creation of an anatomical/functional computerized atlas of the human brain to analyze
	pathological cases against healthy subjects.
Description of scientific expertise offered	The Information Processing and Analysis (IPAN) group is an active research team of the Department of Computer Science of the University of Ioannina (Greece). It consists of 5 faculty members who have over 15 years research experience in information processing and analysis problems. More specifically, their research experience includes image and video processing, analysis and communication, computer vision, pattern recognition, machine learning, robotics, modeling and optimization. Also more than 15 graduate students (MSc. and PhD candidates) accomplish their research under the supervision of the faculty members of the group.
Description of technical expertise offered	Development of prototype software for biomedical image analysis.





Description of requested partner scientific expertise	 Biology Gynaecology Neurology Radiology Professional Computer Programming.
Description of requested partner technical expertise	 Private or Public Medical Center or Hospital to provide and analyze the image data. Software company to integrate the developed prototypes into software and commercialize the package.
Potential partners (name, organisation, address)	

PROJECT IDEA(S)	: 7
	INFORMATION PROVIDED BY: Caterina Psarropoulou, Professor of Physiology, Department of Biological Applications and Technologies
Short description of project	We are currently involved in projects investigating (a) basic mechanisms of seizure generation in immature brain, (b) immature brain plasticity focusing on the cholinergic system, (c) spinal cord mechanisms of pain perception, focusing on interneurons and (d) novel bioactive substance effects on intrinsic neuronal membrane and synaptic properties. The long term aim of this work is the development of new products or therapeutic approaches that would improve brain function and mental health.
Description of scientific expertise offered	The laboratory of Human and Animal Physiology focuses on Neuroscience research. Our expertise includes developing and mature brain neuron physiology and pharmacology, as well as circuit interactions.
Description of technical expertise offered	Our expertise is in electrophysiological techniques mainly, that is extracellular, intracellular and patch recordings form brain and spinal cord neurons
Description of requested partner scientific expertise	A partner would either complement our approach in the above broadly described projects with their expertise or would need our scientific and/or technical expertise in order to complement theirs
Description of requested partner technical expertise	Any, aiming to form a team with an interdisciplinary approach.
Potential partners (name, organisation, address)	Researchers working in a University or a Research Institute.





PROJECT IDEA(S)	y: 8
	INFORMATION PROVIDED BY: Haralampos Stamatis, Associate Professor of Enzyme Biotechnology, Department of Biological Applications and Technologies
Short description of project	We are currently involved in projects investigating a) Development of new "green" bioprocesses for the production of high value products (antioxidants, nutraceuticals) and bio-active compounds b) Development of novel biocatalytic and microbial systems and their application for the production of high value added products used as pharmaceuticals and food additives, for the degradation of pollutants, for the development of biosensors
Description of scientific expertise offered	The Biotechnology Lab has a significant research activity and experience with large experience on the: a) Development of "green" biocatalytic processes in non-conventional media (organic and supercritical solvents, ionic liquids and deep eutectic solvents) for the production of high added value products which can be used in food or pharmaceutical industry (antioxidants, pharmaceuticals, nutracuticals etc.) b) Investigation of the structure - function relationship of enzymes in low water media c) Modification - enhancement of the catalytic behaviour of biocatalytic systems using enzyme engineering approaches. d) Immobilization of biomacromolecules and cells - Development of novel biomaterials - biosensors, effective biocatalytic systems. e) Microbial production of high added value products. f) Biotransformations using enzyme systems, whole cells, microorganisms, microfungal systems
Description of technical expertise offered	Our expertise is in development of biocatalytic processes in non-conventional media, enzyme and microbial bioreactors, cell and enzyme immobilization techniques, spectroscopic techniques for study proteins structure
Description of requested partner scientific expertise	Any, aiming to form a research team with an interdisciplinary approach
Description of requested partner technical expertise	A partner would either complement our approach in the above broadly described projects with their expertise
Potential partners (name, organisation, address)	Researchers working in a University or a Research Institute





Mr Evangelos Gklavakis

PARTICIPANT						
Gender	☐ Mr	Mr Ms Title				
First name	EVANGELOS					
Last name	GKLAVAKIS					
Position	TECHNIC	CAL MANAGER,	CO-OWNER			

O RGANISATION	DETAILS				
Organisation name	GLAVAK	CIS PLANTS O	HG		
Street *	PIPERIA	A			
ZIP * 58400		City * ARII	DAIA	Country *	GREECE
Phone * +302384	022106		Fax	+302384023300	
Email * evan@g	lavakis.gr		Web	www.glavakis.gr	
Employees	1-10	11 -	50	51 - 250	250 +
Organisation type	☐ Higher Education ☐ Research Institution ☐			✓ Company	
Department					
Short description of your company or organization	Glavakis Plants OHG, is a private company working in the horticultaral sector of Greece producing fruit tree nursery stock for fruit tree growers. Committed as we are to innovation, we are seeking to be able to offer solutions to the grower in the constantly changing environment of fruit growing through breeding and studies for adaptability of fruit tree varieties weather these result from contemporary breeding programs or local genetic resources. Particular interest is drawn on the latter since they are predicted to show the best adaptability and environmental plasticity when challenged by the forthcoming climatic changes.				

TOPICS OF INTE	REST REGARDING	G THE CALL FOR	"INNOVATION	Projects"	
Sub-topic of	ICT	Materials	☐ Health	Environment and Climate	Production Technologies
expertise	Biotechnology	Energy	Space	Transport	Optical Technologies
Other (Free keywords) Agriculture, horticulture, pomology, fruit tree breeding, carbon dioxide footprint, farm to fork.					





PROJECT IDEA(S)	
Short description of project	 The research interest is on the field of pomology (temperate fruit tree growing). Our intention is to evaluate the results of contemporary fruit tree breeding in Europe, Russia and Israel by studying the varieties and cultivars in respect to: 1. The adaptation to different climatic conditions. 2. Adaptability to future variations due to climatic change. 3. The carbon dioxide (CO2) footprint of the cultivation with a farm to fork study. The further outcome would be to create a network of agronomic data, experience and genetic resources in order to predict and manage future climate change challenges and to unlock potential fruit growing areas of the studied countries.
Description of scientific expertise offered	Agronomic expertise, genetic identification, polymerase chain reaction, tissue culture of plant species, fruit tree breeding.
Description of technical expertise offered	Fruit growing experience, fruit tree breeding.
Description of requested partner scientific expertise	Fruit tree breeding.
Description of requested partner technical expertise	Agronomic (field) experience of own area/country.
Potential partners (name, organisation, address)	Institutions, breeding companies.





Dr Nikolaos Nikolopoulos

PARTICIPANT						
Gender	☐ Mr	Ms Ms	Title	Dr		
First name	Nikolaos					
Last name	Nikolopou	ilos				
Position	Researche					
ORGANISATION	N DETAILS					
Organisation name		or Solid Fuels To	echnology	and Application	S	
Street *					REGION OF KOURI)	
ZIP * 50210		City * Ptolen		Country		
	4630 55300 / -			+30 210 6501598		
	olopoulos@d	certh.gr /				
niknik@fluid.m	ech.ntua.gr		Web 1	nttp://www.lignit	e.gr/en/index.htm	
Employees	1-10	11 - 5	50	51 - 250	250 +	
Organisation type	Higher E	Education	⊠ Re Institu	esearch ution	Company	other
Department						
Short description of your company or organization	for the pron	The Institute for Solid Fuels Technology and Applications (ISFTA) is the main Greek organisation for the promotion of research and technological development aiming at the improved and integrated exploitation of solid fuels and their by-products.				
TOPICS OF INT	EREST REGA	RDING THE C	ALL FOR	R "INNOVATIO	ON PROJECTS"	
Sub-topic of expertise	ICT Biotechn	☐ Materia ⊠ Energy		Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keywor	ds)					





PROJECT IDEA(S)	
Short description of project	The utilization of solid biofuels, mainly pellets, in hot water boilers in the household sector is one of the promising practices, which face a growing interest and may significantly contribute towards the achievement of the EU goals for RES in 2020. Based on their efficiency, and the flue gas emissions (dust, CO, NOx, Volatile Organic Compounds) the new biomass boilers will be accordingly characterized and classified. In this framework the requirement for optimization of the existing boiler designs becomes apparent. Engineering simulations are a valuable tool for reducing the development time and costs, since the major development work is performed during the simulation process and fewer prototypes are needed to be manufactured and tested. The proposed work intends to investigate the possibilities of improving an existing biomass boiler design by a parallel development process including numerical simulations (CFD) of the whole boiler (furnace section and flue gas path) and experiments at a dedicated test bed for biomass boilers. The numerical investigations will focus on the optimization of the combustion chamber design, towards the improvement of the combustion behavior and the further decrease of flue gas emissions in order to meet the new European levels. The proposed project intends therefore to assist boiler manufacturing companies in Greece and Russia to improve their products by technological development based on sophisticated engineering tools and accordingly enhance their competitiveness in the emerging and challenging market of biomass applications for the house hold sector.
Description of scientific expertise offered	The Institute has many years of experience in the standardization and the design of biomass boilers for the household sector both by experimental techniques and numerical models application. It has cooperated in the past with companies producing hot water boilers in the household sector, gaining important scientific knowledge on this scientific area and knowing existing drawbacks of the current state-of-art technology.
Description of technical expertise offered	Technical expertise includes advanced numerical modeling procedures as well as laboratory equipment for experimental studies on the design of biomass boilers for the household sector.
Description of requested partner scientific expertise	Scientific and/or industrial expertise on the design of biomass boilers for the household sector.
Description of requested partner technical expertise	Technical expertise for the manufacturing, application and testing of on the design of biomass boilers for the household sector
Potential partners (name, organisation, address)	Central Research Institute for Corrosion and certification (INO SCC)) Leninsky Prospekt, 31, building 5, RUSSIA





<u>Israel</u>

Dr. Zamir Koren

PARTICIPANT					
Gender	Mr		Title: Dr.		
First name: ZAM	IR				
Last name: KOR	EN				
Position Head of research institute					
ORGANISATION DETAILS					

ORGANISATION	ORGANISATION DETAILS									
Organisation name	Organisation name AMTS (AeroMagnesium)									
Street *	Technion city	chnion city								
ZIP * 32000		City	* HAIF	A		Country *	' ISR	AEL		
Phone * 972-4-82	294473			Fax	972-4-	8235103				
Email * zamirkor	@technion.ac	e.il		Web						
Employees	51-250									
Organisation type	Higher Education Institution			Re Institu	esearch ution	ı	⊠ Co	ompany	other	
Department	Research de	Research department								
Short description of your company or organization	AMTS (aeromagnesium) is an engineering oriented industrial organization, which has been active since the mid 90's, and is dedicated to the supply of a wide range of technological solutions, in order to ensure the professional use of wrought/cast magnesium alloys in aeronautics applications.									

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"					
Sub-topic of expertise	ICT Biotechnology	Materials Energy	Health Space	□ Environment and Climate ⊠ Transport	Production Technologies Optical Technologies
Other (Free keyword	ls)				

PROJECT IDEA(S)





Short description of project	The project will research and develop weight-saving magnesium alloys based boxes to house avionics electronics for use in airborne structures.
Description of scientific expertise offered	AMTS has a 15 year old scientific know-how to deal with all the topics concerning introduction of magnesium alloys into airborne structures including knowledge in electromagnetic compatibility, corrosion resistence and vibrational analysis.
Description of technical expertise offered	AMTS posseses a wide knowledge and know-how in surface treatment technologies of magnesium alloys, expertise needed for successful completion of this project.
Description of requested partner scientific expertise	Knowledge in vibrational analysis, Heat transfer analysis, and strength of materials analysis.
Description of requested partner technical expertise	The requested expertise needed from partners covers the following areas: Magnesium fabrication technologies, Materials characterization procedures, Materials testing equipment and knowledge ect.
Potential partners (name, organisation, address)	 Russia: SMW, Engineering, Sankt, Petersburg, Dr. Zinovy Rogalski, smwe@smwe.ru Germany: Neue Materialen Furth GmbH, Michael.grimm@mfambh.de Germany: Diehl Stiftung & Co.: Dr. Andreas Volek, Andreas. Volek@ww.uni-erlangen.de





Mr Haim Rozenzon

PARTICIPANT				
Gender	☑ Mr	r	Title:	Engineer
First name	Haim			
Last name	Rozenzon			
Position	Head of research l	aboratory		

ORGANISATION	DETAILS					
Organisation name	ALUBIN					
	on City					
ZIP * 32000	City	* Haifa			Country *	Israel
Phone * 972-4-82	294472		Fax	972-4-	8294571	
Email *			Web			
Employees	☑ 51-250					
Organisation type	Organisation type					7 Company
Department	Research and development					
Short description of your company or organization	SHL-ALUBIN is the largest aluminum and magnesium profile manufacturer in Israel. The enterprise, which produces about a thousand tons of profiles per month, enjoys the benefits of size and power of two experienced and sophisticated merged factories. The whole process of production and finishing takes place from start to finish under one roof.					

TOPICS OF INTE	REST REGARDING	G THE CALL FOR	"INNOVATION	Projects"	
Sub-topic of	ICT	☑ Materials	Health	☑ Environment and Climate	Production Technologies
expertise	Biotechnology	Energy	✓Space	☑ Transport	Optical Technologies
Other (Free keyword	ls)				





PROJECT IDEA(S)	PROGRAMME
I ROJECT IDEA(S)	
Short description of project	Aluminum/Magnesium matrix reinforced with SiC nano- particles for Improvement of mechanical properties, deformability and temperature resistance.
Description of scientific expertise offered	ALUBIN is equipped with wide range of research facilities. The equipment includes a variety of facilities for the production of lab scale Al billets and ingots [furnaces for melting with protective atmosphere, semi-solid casting facilities , Al-MMC casting facilities, heat treatment furnaces with vacuum/protective atmosphere. With Technion as subcontractor, ALUBIN employed characterization equipment - optical and electron microscopes (SEM, HRSEM, TEM, EDS), equipment for mechanical properties investigations (tensile strength tests, hardness and micro-hardness, impact, etc.), spectrometers, XRD and other research equipment.
Description of technical expertise offered	ALUBIN has long time experience in technologies related to casting of light-alloy-based matrixes including casting of Al and Al-MMC and all their combinations (i.e., binary as well as ternary and quaternary alloys). ALUBIN has employed different techniques to achieve desired microstructures and properties for innovative feedstock materials such as thixo-molding, semi-solid, rapid solidification, etc. In the relevant field of interest – aluminum/magnesium-based composites with micro- and nano-scale reinforcements
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	





Mr Stephan Torteman

Other (Free keywords)

PARTICIPANT								
Gender	🖸 Mr	C Ms	Title					
First name	Stephane							
Last name	Torteman							
Position	СТО							
ORGANISATION	DETAILS							
Organisation name	GARD Lt	d 5 – employee:	S					
	Shlomo 2							
ZIP * 58498		City * Holor	1		Country *	Israel		
Phone * 972 52 6	5402520		Fax					
Email * stephan(@gard-medic	ca.com	Web					
Employees	1-10	1-10 11-50			250 □ 250 □			
Organisation type	Higher Institution	Education	Re Institu	esearch ation		✓ Company	other	
Department	R&D							
Short description of your company or organization	of your company of your company investive diagnosis aid and monitoring solutions, based on our unique approach and technology.							
				(CT				
TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"								
Sub-topic of expertise	ICT	Materi	als	⊠ Hea	alth	Environment and Climate	Production Technologies	
r	Biotechn	Energy ology	ý	Spa	ace	Transport	Optical Technologies	

PROJECT IDEA(S)	
Short description of project	Development and construction of a cardio-diagnosis aid system (CARDAS) based on rich vibrometry, relational ECG, sphygmometry and the appropriate medical databases.





Description of scientific expertise offered	Cardio vibrometry (non-invasive, on chest surface), registration and analysis of relations with myocardial contractions, valvular functionality, ECG variability, sphygmometry (BP), blood flow variations and other human medico-physiological conditions.
Description of technical expertise offered	Signal processing, sensorics, firmware and hardware processing developments, dynamical adaptive filtering and rapid search in databases.
Description of requested partner scientific expertise	Mathematical signal processing and analysis. Experts in dynamical databases, (inference techniques and AI). Charactirizations of chaos. 4. Medical device production and approval
Description of requested partner technical expertise	 Cardio diagnosis researchers and experts 2. General practitioners clinics and labs Medical equipment producers Experts in cardio-vibrometry 5. Optical signal processing
Potential partners (name, organisation, address)	Siberian Academy of Science, Physik Instrumente, CNRS, and others. Please send us list of participants. Thank you.





Russia

Mr Igor Bogdasin

PARTICIPANT						
Gender	☐ Mr	☑ Ms	Title	PhD		
First name	Igor					
Last name	Bogdasin					
Position	director					
ORGANISATION	N DETAILS					
Organisation name	e Prognos					
Street *	Kirova 476					
ZIP * 644043		City * Omsk		Country *	Russia	
Phone * +79139	9885209		Fax	+73812377123		
Email * boga12	2@mail.ru		Web			
Employees	1-10	11 - 50)	51 - 250	2 50 +	
Organisation type	Higher I	☐ Higher Education ☐ Research ☐ Company ☐ other Institution ☐ Institution ☐ Company ☐ other				
Department						
Short description of your company or organization	The compa		o apply	cancer patients' with	n immunoreabilitation	methods in ordinary
TOPICS OF INT	EREST REGA	RDING THE CA	LL FOI	R "INNOVATION	PROJECTS"	
Sub-topic of expertise	ICT Biotechn	Material Energy	s	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keywor	$\frac{1}{2ds}$ imm	unoreabilitation, o	ancer ni	ognosis		





	PROGRAMME
PROJECT IDEA(S)	
Short description of project	Immunological competence is accepted to play an important role in tumor progression. The immune system state is an integral unity of concrete molecular and cellular events. This integral state may be associated with different disease outcome. Using NovoSpark multidimensional data visualization method [http://www.tsu.ru/storage/iro/k020410/s4/s4.doc] we compared the immune system state as an integral unity of breast cancer patients with no signs of the disease progression (1) and with metastases (2) detected within a 3-year follow-up. The study included evaluation of 55 immune system parameters before treatment, after 2 courses of neoadjuvant chemotherapy, after 3-4 courses of neoadjuvant chemotherapy, 10-12 days after surgery and 1 year after anticancer treatment completion. We have shown that the images of the integral immune system states reflect statistically with significant difference between breast cancer patients without disease progression and patients with metastases occurred within three year follow-up. Immunological parameters set has been identified providing statistical difference in visual images of the immune system state in breast cancer patients with different outcomes of the disease. It's possible to use the obtained breast cancer patients immune system state images related to either prolonged remission or haematogenious metastases as an additional prognostic factor of disease outcome. This method will appropriate for cancer and other immune system diseases prognosis assay. The project is purposed in the application of research findings in ordinary oncology practice. The preliminary investigation was carried out in the Tomsk Oncology Research Institution of the Siberian department of the Russian Medical Science Academy [patent application № 2010129630, priority 15. 07. 2010.].
Description of scientific expertise offered	
Description of technical expertise offered	Computer program to assess prognosis of oncological diseases during specific treatment and during follow-up. The assessment is based on immunological parameters.
Description of requested partner scientific expertise	Database of immunological and clinical parameters of patients with malignant tumors with known outcomes. So we can strengthen the verification of the method and its optimization and adaptation to various methods of immunological parameters assessment.
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Investors, distributors, specialists certification and marketing in medicine





Mr Vladimir Erofeev

PARTICIPANT							
Gender	☐ Mr	☐ Ms	Title: Prof	f., Dr			
First name	Vladimir						
Last name	Erofeev						
Position	Professor						
ORGANISATIO	N DETAILS						
		Small Innov	rative Enterpris	e "Polyant" Ru	ıssia.Tomsk		
Street * 7a–38, A	Asinivskaya str	<u>.</u>					
ZIP * 634021		City * Tomsk		Country *F	Russia		
Phone * 3822-563-320			Fax 3822-56	3-832			
Email * Erofeevvi@mail.tomsknet.ru			Web				
Employees	v ^{□ 1-10}	1 1 -	50	51 - 250	250 +		
Organisation type	Higher I Institution	Higher Education Research Institution Company other					
Department	Small Inno	Small Innovative Enterprise					
Short description of your company or organization	Innovative new high- instruments performed department effective m used in a substances,	SME "Polyant" was founded in 2004 by support of The Foundation for Assistance to Small Innovative Enterprises (FASIE) in Russia. The aim of the "Polyant" is development and production of new high-tech products and technologies in the field of biochemistry, analytical chemistry instrumentation. "Polyant" direct connects with Tomsk Polytechnic University. All investigations are performed by collaboration with Laboratory of quality control of biological active substances and department of physical and analytical chemistry of Tomsk Polytechnic University. As result the new effective methods and analyzer for antioxidant determination have been elaborated, which are widely used in analytical laboratories for total antioxidant activity determination of biological active substances, products of cosmetic, food, pharmaceutical industry and nano-composite materials, chemistry and chemical engineering.					

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"						
Sub-topic of expertise	ICT Biotechnology	Materials Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies	





Other (Free keywords) nanotechnology, nano-engineered catalysts, nanoparticles, nanotechnology for petrochemical

PROJECT IDEA(S)							
Short description of project	Development of nano-engineered catalysts for the highly efficient direct synthesis of valuable hydrocarbons from light off-gases of oil and gas processing, as well as from bio-gases, bio-ethanol and plant oils.						
Description of scientific expertise offered	The experiences in heterogeneous catalysis based on industrial practice (alkylation, selective oxidative dehydrogenation of butane, denitrofication of flue gases etc.); presently a R&D project on catalysts for low temperature cracking of heavy hydrocarbons.						
Description of technical expertise offered	Preparation and modification of heterogeneous catalysts and nanoanalytical characterizations.						
Description of requested partner scientific expertise	Experienced in heterogeneous catalysts, preparation of catalysts (e.g. zeolites, mordenite, alumosilicates etc.), knowledge on petrochemical and biochemical processes.						
Description of requested partner technical expertise	Testing and characterization of heterogeneous catalysts, economical analysis, caollaboration with the related industry.						
Potential partners (name, organisation, address)	Prof. Prof.h.c.Dr. rer.nat.habil. Vladimir Reschetilovsky, Director of Technical Chemistry Institute Technical University of Dresden, 01062 Dresden, Cellesher Veg 19 Germany, Wladimir.reschetilowski@chemie.tu-dresden.de Prof. dr. Lothar Heinrich marcotech oHG c/o Center for Nanotechnology, Heisenbergstr. 11 48149 Muenster Germany, phone: +49 251 836 3410; fax: +49 251 836 3412; lothar.heinrich@marcotech.de;						





Dr. Mikhail Filimonov

PARTICIPANT					
Gender	☐ Mr	☑ Ms	Title	Doktor	
First name	Mikhail				
Last name	Filimonov				
Position	President				
ORGANISATION DETAILS					

ORGANISATION DETAILS						
Organisation name : «TechnoPark of High Technologies» LTD						
Street * Pervomaisk	kajya 112-8					
ZIP * 620049		City *Yek	aterinburg	Country *	k Russia	
Phone * +7(343)3	375-03-29		Fax +7	7(343)375-03-29		
Email * filimono	ov_m_yu@m	ail.ru	Web	_		
Employees	1 -10		11 - 50	51 - 250	250 +	
Organisation type	Higher E	Education	☐ R Instit	esearch ution	Company	other
Department						
Short description of your company or organization	Our company was founded in 2010 for commercialization of scientific research performed in the Ural branch of Russian academy of sciences. One of the main activities of the company is to develop new mathematical models and to create software to solve problems of nondestructive monitoring related to identifying damages of an underground pipeline. Monitoring of pipeline shell and its depth is carried out on the base of thermal fields at the ground surface. Also, team of the company has a number of scientific researches in the field of numerical simulation of permafrost defrosting in the zone of oil wells (http://dl.dropbox.com/u/11531725/apm.files/apm2010_Proceedings_splitted/2010033.pdf). All results have been scientifically examined and were supported by the Russian Foundation for Basic Research (RFBR) and the Government of Sverdlovsk Region (Grant 08-01-99028-RFBR-URAL «Diagnostics of underground pipelines by thermal fields on a day surface» and grant 10-08-96014 - RFBR-URAL «Elaboration and application of new mathematical models for state estimation of underground pipeline by thermal fields»). Our team has an experience in implementation of their scientific research in companies engaged in production and transportation of oil and gas.					

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"							
Sub-topic of expertise	ICT	Materials	□ Health	Environment and Climate	Production Technologies		
	Biotechnology	Energy	Space	Transport	Optical Technologies		





Other (Free keyword	ds)	

PROJECT IDEA(S)

<u>Project Title:</u> Monitoring of underground pipeline and mathematical simulation of affecting of oil and gas wells on degradation of permafrost.

<u>Key words:</u> monitoring of technical systems, pipelines, wells, heat, radiation, degradation of permafrost, soil freezing, phase transition, environment, geocryology.

Relevance. In 2010 in Russia there are about 230 thousand km. of underground pipelines. In course of the time a number of different damages may arise on these pipes, which are caused by both natural factors associated with the operating conditions, and artificial, caused by human intervention (socalled "crime incut"). One of the methods of monitoring of a pipeline is to carry out a thermal imaging survey of the ground surface over the pipeline. It is noted that for a 1 thousand km. segment of a pipeline the difference of expected average costs of visual and thermal imagining control methods is approximately \$ 10 million per 10 years. Thus, in general, in Russia this difference is about \$ 230 per year million pro thermal imagining methods. During of the joint project it is planned to assess adequacy of new mathematical models for monitoring of underground pipelines by using of thermal fields, gotten from the ground surface over the pipeline. For oil and gas wells located in zones of permafrost (in Russian permafrost zone occupies 65% of the territory, which produces about 93% of Russian natural gas and 75% of oil). Rate of permafrost defrosting will be evaluated in dependence on different ways of thermal insulation of wells. An important task is to reduce the influence of different heat sources on the permafrost, because the problem of reducing intensity of thermal interaction in the zone of well-soil has a special significance for solving the problems of energy saving, environmental protection, safety, cost savings and improve operational reliability of wells. Let note that in Russia according to the report of commission of environmental supervision, up to 55 billion rubles per year are spent for repairing infrastructure and pipelines damaged by permafrost defrosting in Western Siberia. Investigation of the processes of freezing (defrosting) of soil is especially important for countries whose territory is adjacent to Arctic.

Short description of project

<u>Expected results.</u> As well as new mathematical models that describe the problems mentioned above it is planned to develop new computational technology, to create an appropriate software, to implement it in companies engaged in pipeline maintenance, designing of production wells and construction of various facilities in permafrost zones and on shelf of Arctic Ocean. It is expected that work on the project will strengthen scientific contacts between companies and allows to establish new areas for joint business. Joint scientific results obtained during the project will be presented on international conferences and published in leading scientific journals.

Innovative aspects. The novelty of expected results of the project is that the problems to be modeled will take into account a maximal number of physical factors that affect on heat transfer. Namely, we will take into account not only radiative elimination, which leads to nonlinear boundary conditions at the ground surface and characteristics of different soil layers in which lies an underground pipeline, but also water filtration in moist soil and its evaporation at the ground surface under influence of solar radiation and wind. For soils located in permafrost it will be additionally taken into account the following factors: different thermal parameters of the soil (not only in vertical plane), seasonal fluctuations of air temperature, possible phase transition, engineering structures, which include wells (different thermal insulation materials), thermal insulation surface of base platform on which wells are drilled and an initial stage of drilling (up to two weeks), when drilling tools are passing upper layers of frozen soil for affecting defrosting of frozen soil near the well constructed.

Team of the company is highly experienced and has successful long-standing practice in creating and





Description of scientific expertise offered	implementation of new numerical-analytical methods and mathematical simulation of various physical processes. Currently, the team has created original mathematical models and software packages for determination of thermal fields generated by underground pipelines (probably damaged), taking into account many physical phenomena that in classical statements are not counted. There were formulated recommendations to find non-uniformities in thermal fields at the ground surface. Developed software has been transferred for using in companies involved in monitoring of pipelines. By these programs a large number of computations have been carried out to provide advice in usage of thermal imagining units, located on a helicopter, for underground pipelines. To search for irregularities which are corresponding to possible damage of pipeline in thermal fields (thermal trace on the ground) it is planned to use know-how of software developers. Using experience of simulation of heat propagation from underground pipelines, the team began to study processes of heat propagation from wells located in permafrost zone. A new mathematical model, which describes heat propagation from the well in the frozen soil, is developed taking into account inhomogeneous temperature cycling on Earth's surface and intensity of solar radiation. To adequately describe process of permafrost defrosting a number of
	real thermophysical parameters of soils, its heterogeneity, are taken into account as well as geometric and thermal insulation characteristics of engineering structures, which are equipped wells. Complex of software applications has developed for solving such problems. Initiated by a company engaged in furnishing wells located in permafrost zones, a large series of numerical calculations is carried out, which allowed experts to make recommendations on optimal location of wells and their insulation. A number of scientific results were published and presented at international scientific conferences.
Description of technical expertise offered	The project team has personal computers and laptops, printers, scanners, necessary licensed software and access to operations on high-performance multiprocessor computer system.
Description of requested partner scientific expertise	Our potential partners could be companies, research institutes, technical centers, universities, small innovative companies that solve applied problems relating to diagnosis of integrity of pipelines, its displacement (strain) in the swampy ground under action of oil flowing inside, that deal with production and optimization of wells, including in permafrost zones. We are ready to cooperate with companies interested in joint research projects and in projects for various applied problems associated with processes of heat transfer (including in metallurgy), radiation, filtration, with following publication of scientific papers and introduction of scientific developments in industry
Description of requested partner technical expertise	Our potential partners could be large companies, producing, or transporting oil and gas. We are ready to cooperate with companies and technical centers, which develop and manufacture thermal imaging equipment, as well as companies engaged in thermal imaging monitoring of pipelines.
Potential partners (name, organisation, address)	Our potential partners could be companies associated with monitoring of pipelines, in particular, developers and manufacturers of thermal imagining equipment, as well as companies engaged in furnishing oil wells located in permafrost zone, or on shelf of Arctic Ocean, the developers of applications and new computing technologies, as well as companies interested in mathematical modeling of complex technical systems and various physical (natural) phenomena, including solution of various environmental problems.





Mr Sergei Kalabanov

PROJECT IDEA(S)

Short description of

Gender Image: Sergei Sergei Sergei Sergei Sergei Serg				
Last name Kalabanov Position Director ORGANISATION DETAILS Organization name Karza, LLC Street * 16, Kremlevskaya				
Position Director ORGANISATION DETAILS Organization name Karza, LLC Street * 16, Kremlevskaya				
ORGANISATION DETAILS Organization name Karza, LLC Street * 16, Kremlevskaya				
Organization name Karza, LLC Street * 16, Kremlevskaya				
Organization name Karza, LLC Street * 16, Kremlevskaya				
Street * 16, Kremlevskaya				
	ļ			
ZIP * 420008 City * Kazan Country * Russia				
Phone * +79178959133 Fax +7(843)2337029				
Email * kazansergei@mail.ru Web www.karza.ru				
Employees				
Organisation type				
Department Radiophysics Department	Radiophysics Department			
Short description of your company or organization Karza LLC – next generation electrical smart grid start-up founded by experts from a leading Kaza university				
TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"				
Sub-topic of expertise Sub-topic of expertise Biotechnology Bio				
Other (Free keywords) Measurement of energy consumptions, Smart grid solution, Intellectual power network				

Our project is called "Intellectual power network for home and office area".

This power network assumes the decision of variety of problems in the field of effective power





	PRUGRAMME			
project	consumptions in home and office area, in the field of fire-safe operation of electric devices and networks itself, in the field of detection of unauthorized connection to the power network.			
Description of scientific expertise offered	The project is directed for development of the intellectual power network for home and office area. This network at hardware and program levels should correspond to the requirements taking place in information networks. The scientific expertise of the project is stated in the demand for the invention «The way of creation of a multilevel information network from specialized PLC routers» (the patent № 2352065, owner "Karza", LLC). The information network is using PLC - technology (power line communication). Advantage of PLC technology is no need in creations of an additional communicational infrastructure. The main goal of this invention is formation of the multilevel information network working on the basis of PLC technology. On each border of information subnets it is established a specialized PLC - router which works as the information bridge between subnets. At hardware level the multilevel information network is formed. It allows to define a network configuration in an automatic mode, to define total number of subnets, their hierarchy, to define structure of the devices with built in PLC-modem connected to every subnet.			
Description of technical expertise offered	The technical realization of our project is able to answer crucial questions that rise in operation of all electrical devices. At present practically there are no monitoring systems connected to power network, there are no technologies, allowing to answer questions: what equipment is connected in each socket, what technical condition of the connected equipment, what power consumption of each concrete equipment. Our new technology is able to automatically configure the power network in order to know: what type and properties of connected equipments, what its individual electrical parameters, whether it is authorized to operate in the power network. The technology is able to set individual electrical behavior for each unit. The whole system consists of central unit that collects information of power consumption from all loads and save it in flash memory and peripheral units that measure power consumption of each loads and send it to central one. Besides the peripheral unit is able control the operation of units (on/off). Collected information contributes to better decision-making around, for example, capital hardware replacement or energy efficiency programs, reveals individual places and units that consume a lot.			
Description of requested partner scientific expertise	We are interested in scientific partners that are able to develop and create software for a computer to communicate to our system wirelessly. Also we are interested in partner that has expertise in the field of European certification.			
Description of requested partner technical expertise	We are interested in technical partners that are able to develop and produce electronic chip sets and software to control it for power line communication and for wireless communication.			
Potential partners (name, organisation, address)	 A technical potential partner - Yitran communication, address: 31 Keren Haiesod St., Beer-Sheva, Israel A scientific potential partner - a company from Germany 			





Ms. Galina Kostromitina

PARTICIPANT					
Gender	☑ Mr	Ms Title	Equipme	nt for xenon treatme	ent
First name	Kostromitina				
Last name	Last name Galina				
Position	General Director	r			
ORGANISATION I	DETAILS				
Organisation name LLC "Scientific Corporation "Biology Gas Service"					
Street * Bolsha					
ZIP * 6210144	,		Country *	Russia	
Phone * 7(343) 21		Fax			
Email * scbgs@m	nail.ru	Web	www.xebgs.ru		
Employees	1 -10	11 - 50	51 - 250	250 +	
Organisation type	☐ Higher Education ☐ Research ☐ Institution ☐ Company ☐ other				
Department	Medicine, the medical equipment				
	The basic directions of activity - scientific, design development, manufacture and sale of the medical equipment, creation of new technologies of treatment				
TOPICS OF INTER	REST REGARDIN	G THE CALL FO	OR "INNOVATION	PROJECTS"	
Sub-topic of expertise	ICT	Materials	⊠ Health	Environment and Climate	Production Technologies
	Biotechnology	Energy	Space	Transport	Optical Technologies
Other (Free keywords)	xenon, me	dical equipment			
PROJECT IDEA(S)					
Short description of project		the device for xer	non inhalations, manu	facture and sale of devi	ces





Description of scientific expertise offered	Creation of the special-purpose medical equipment for treatment of xenon, development and introduction of technologies of xenon treatment, research of influence xenon on an organism of the person at various diseases
Description of technical expertise offered	Manufacture of medical equipment for treatment of xenon, working on the closed contour with use of small streams of medical gases – effective, economic, environmentally clean technology providing realization recycling (gathering and restoration of the used gas).
Description of requested partner scientific expertise	The organizations which were carrying out researches on application ксенона for treatment of diseases of the person.
Description of requested partner technical expertise	The companies making the respiratory equipment, means of automation, the equipment for pneumoautomatics
Potential partners (name, organisation, address)	Ulm University, 89069 Ulm, Telefon +49 (0)731/50-10; Air Liquide (Head Office) 75, Quai d'Orsay - 75 321 Paris; CHIRANA s.r.o.,Nám. Dr. A. Schweitzera 194 P.O.Box 57, 916 01 Stará Turá





Mr Andrei Kruglov

Short description of

features.

project

PARTICIPANT						
Gender	☐ Mr	☐ Ms	Title			
First name	Andrei					
Last name	Kruglov					
Position	Director					
ORGANISATIO	N DETAILS					
Organisation name	e Rosnanot	eh, Ltd.				
Street * 40-th						
ZIP * 456770		City * Snezhii	nsk	Country *	Russia	
Phone * +7 (35	1-46) 3-27-47		Fax +7	(351-46) 3-27-47		
Email * <u>dus-sn</u>	<u>z@mail.ru</u>		Web			
Employees	1-10	11 - 50	0	51 - 250	250 ±	
Organisation type	Higher Institution	Education	Re Institu	search tion	Company	other
Department						
Short description of your company or organization	company electrolytes containing page diamond fractions electrolyte formulations for various applications and					
TOPICS OF INT	EREST REGA	RDING THE CA	LL FOR	"INNOVATION	PROJECTS"	
Sub-topic of expertise	ICT	Material	S	Health	Environment and Climate	Production Technologies
	Biotechn	ology Energy		Space	∐ Transport	Optical Technologies
Other (<i>Free keywords</i>) Development and adoption of industrial process for producing electrolytes containing nano- diamond fractions, electrolyte formulations for various applications and compilation of hardware for integration of new technology						
PROJECT IDEA	(S)					
	Galvanic	coatings are cruci	al in tern	ns of better quality	, reliability and durabi	lity of industrial items as

far as they provide anti-corrosion protection to metals and alloys, decrease friction between functional

surfaces, enhance wear-resistance and adhesion, provide attractive exterior and other additional





Much better results can be achieved by application of nano-diamonds in galvanic processes. For instance chrome-plating of tools, structural and decorative items, silver- and gold-plating demonstrated outstanding results - wear-resistance of nano-diamond coatings has increased in times. Use of nano-diamonds allows making chrome coating 5 times thinner causing no damage to its properties. Thus, a plant which maintains 10 chrome-plating tanks will be able to use just 2 for the same capacity if new technology is applied. It means sufficient savings on power energy, chemical agents and labour costs. Besides, metal-diamond films are pore-free, i.e. they are of high corrosion resistance and enhanced anti-friction ratio. As of now project initiators has already developed a method for production of galvanic coatings modified with nano-diamonds. In all processes that have been already studied project initiators achieved sufficient improvement of consumers' properties of ready coatings. For instance, introduction of nano-diamonds in copperplating electrolyte produced pore-free copper coatings; micro-hardness raised in 1,5 times, coating stretch improved in 2 times, wear-resistance grew in 9-10 times, corrosion-resistance was enhanced in many times and electrolyte scattering capacity increased in 3 times. Zinc-diamond coatings improved their corrosion-resistance in 2-3 times, electrolyte scattering capacity grew by 24% (from 33% to 57%). Wear resistance of silver coatings enhances in 3-10 times and micro-hardness grows up to 180 kg/mm² This invention is protected with Patent №2368709 (filed in Russian Federal Register of Inventions on Description of September 27, 2009). scientific expertise The proposed project, based on general production method of galvanic coatings, assumes offered development particular formulations and methods for production of electrolytes containing nanodiamonds that could be applied for various industries. Technical challenge of the proposed project is concerned with development of industrial process for producing electrolytes containing nano-diamond fractions, electrolyte formulations for various applications and compilation of hardware for integration of new technology. One of the objectives includes improvement of physical, mechanical and decorative features of galvanic coating for lower costs related to production. The method is concerned with production of electrolyte suspension for galvanic coatings modified with nano-diamonds, namely introduction of nano-diamond fractions of less 200 nm and cavitation dispersion carried out both in course of suspension production and in course of application of coating (exposing suspension to cavitation). Introduction of mentioned nano-diamond fractions provides for downsizing of their concentration in several times ensuring the same quality of the coating, thus cutting down the costs related to manufacturing of such coating. The invention relates to galvanic technologies and can be applied for modification of plated metal Description of coatings and production of composite metal-diamond galvanic films. Inventors carried out researches technical expertise concerned with technological processes of nickel-, chrome-, copper-, zinc-, silver- and gold-plating. offered This process can be used for application of other metals and metal alloys. Advantages of new technology Full preservation of standart technological process useing nanodiamonds Insignificant growth of cost of technological process технологического процесса brings to the serious improvement of consumer characteristics of coatings Growth of steadiness to Coating with nanodiamonds Growth of endurance corrosion Chrome 2-12 times 3-6 times Nickel 5 - 9 times2-5 times Gold 1,8 - 5,5 timesNo corrosion 4 – 12 times Silver No corrosion 10 - 13 times Aluminium No corrosion





Description of requested partner scientific expertise	
Description of requested partner technical expertise	Industries: • Machine building – covering the details, friction units of machines, lathes, moulds, tools • mining industry – covering the details of pumps, shut-off valves and fittings, another units, working under pressure • Motor industry – covering the details of engines and elements of constructions • Electrical industry – covering the different items with precious metals
Potential partners (name, organisation, address)	





Ms Anastasia Medveko

PARTICIPANT			
Gender	☐ Mr	Ms Ms	Title
First name	Anastasia		
Last name	Medvedko)	
Position	Head of N	Marketing and Deve	elopment Department

ORGANISATION	DETAILS		
Organisation name	Limited Liability Company	y "NEVZ- Scientifical Researc	ch"
Street *	Krasny Prospect, 220 bui	ilding 1	
ZIP * 630049	City * Novosil	birsk Country *	Russian Federation
Phone * +738322	258275	Fax +73832258275	
Email * marketii	ng@nevz.ru	Web <u>www.nevz.ru</u>	
Employees	1-10 11-5	50 51 - 250	250 +
Organisation type	☐ Higher Education ☐ Research ☐ Institution ☐ Company ☐ other		Company other
Department	Development Department		
Short description of your company or organization	a production Holding "NEV NEVZ-Soyuz is one of the company provides the so electrotechnics, electronics, "NEVZ- Scientifical researce contribute to their better leve "NEVZ- Scientifical resear Russia and abroad including Traumatology and Orthoped The main fields of our activity research and experi development, productions of the search and experience of the	biggest producers of advance blutions of advanced mater military, chemical, oil and garch" mission and vision is to rel of life and health improvem the works in close partnership medical organizations such a dics. ities are: imental development on natural duction and implementation	provide the innovative biomaterials people to nent. p with scientific Institutes and organizations in as Novosibirsk Scientific-Research Institute of

TOPICS OF INTE	REST REGARDING	G THE CALL FOR	"INNOVATION	Projects"	
Sub-topic of expertise	ICT	Materials	⊠ Health	Environment and	Production Technologies
CAPCILISE	Biotechnology	Energy	Space	Transport	Optical Technologies





	TROGRAMME
Other (Free keyword	s) Ceramic materials and technology, Nanotechnology

PROJECT IDEA(S)	
Short description of Project	Setting-up of high-technology implants production from nanostructured biocompatible ceramics replacing metal implants
Description of scientific expertise offered	We have experience in the field of conducting R&D and application for biocompatible and structural ceramics. We conducted R&D and obtained the excellent results under the following topics: "Designing of mechanostrength and mechanodynamic properties of ceramic production and its nanocoating under using in human conditions" "Designing of porous frame surface using hydroxyapatite coating" "Development of research method of the cell adhesion process to ceramic material in vivo"
Description of technical expertise offered	LLC NEVZ-Scientifical Research is engaged in the development and application of modern advanced ceramic materials. We have the technology of alumina and zirconium oxide ceramics, steatite and forsterite applying in radio and telecommunications, vacuum switchgear, power semiconductor devices, zirconium oxide ceramic for manufacturing of medical products for traumatology and orthopedics. The enterprise is equipped with all the main types of energy resourses (electrisity system with necessary capacity, the system of natural gas submission, central heating and water, proper hydrogenoxygen station and centrallized production system of comprassed air)
Description of requested partner scientific expertise	Experience in the development of ceramic composite materials having required properties for applications in medicine including of carbon nanotubes applying; Experience of development nanostructured ceramics with using of ultrasonic compacting
Description of requested partner technical expertise	Experience in manufacturing of submicron and nanoscale components including carbon nanotubes for manufacturing of ceramic composite materials; Experience in manufacturing of volumetric nanostructured ceramic products by method of ultrasonic compacting
Potential partners (name, organisation, address)	 TPU Nano-Centre (Prof. Oleg Khasanov; khasanov@tpu.ru; http://portal.tpu.ru/departments/centre/nano/eng; 30, Lenin Ave., Tomsk Polytechnic University, Tomsk, 634050, Russia. Tel./fax +7(3822)427242). Holding JSC "NEVZ-Soyuz" (Mrs. Anastasiya Medvedko; marketing@nevz.ru; http://ru.nevz.ru/; 220 Krasnyi prospect, Novosibirsk, 630049, Russia. Tel. +7(383)2106284; Fax +7(383)2258275). Fraunhofer IKTS Institutsteil Hermsdorf (DrIng. Uwe Reichel; uwe.reichel@ikts.fraunhofer.de; www.ikts.fraunhofer.de; Michael-Faraday-Str. 1, 07629 Hermsdorf, Germany; Telefon +49(36601)9301-3931; Fax +49(36601)9301-3921). Glonatech S.A. (Dr. Stephanos Nitodas; snitodas@glonatech.com, http://www.glonatech.com, 401, Mesogion Avenue, Aghia Paraskevi , Athens, 15343, Greece, Tel.:+30-210-6085648, +30-210-6083465, Fax.:+30-210-4310875)





Mr Dmitry Metelev

PARTISIPANT								
Sex	⊡ Mr	Ms Ms	Title:					
First Name: Dmitry								
Last Name: Metel	ev							
Position: Specia	alist							
O RGANISATION	DETAILS							
Organisation name	Business 1	Incubator of Ura	l Federal U	Jniversity				
Street * Komsomo	olskaya, 61							
ZIP * (+7-902)		City * Ekater	inburg	Country *	Russia			
Phone * (+7-902)	87-42635		Fax ((+7-343) 3754835	j			
Email * <u>d.a.mete</u>	eleff@gmail.c	<u>com</u>	Web v	www.uralinno.ru				
Employees	1-10	11 - 9	50	51 - 250	250 +			
Organisation type	Higher E Institution	Education	☐ Re Institu	esearch ation	Company	other		
Department	Education							
Short description of your company or organization	of der Business in enter the st The main a of innovativ	velopment cubator focused table independe ctivities of Busi ve competitions	of it on the for nt function ness Incuband other	nnovation i mation and suppo ning in the mark pator is providing	infrastructure of ort of innovation-active et in the form of sma funding of innovative pration of innovative pration of innovative pration of innovative pration.	the university. project teams before they all innovative enterprises. projects, the organization of		
Topics of Diffe	DECT DEC	DDD1G THE G		(Tanada Tro	N. Dr. o in cris??			
TOPICS OF INTE	REST REGA	RDING THE C	ALL FOR	R "INNOVATIO	N PROJECTS"			
Sub-topic of expertise	ICT Biotechn	Materia Materia Energy ology		Health Space	Environment and Climate Transport	Production Technologies Optical Technologies		
Other (Free keywords	s)							





PROJECT IDEA(S)	
Short description of project	
Description of scientific expertise offered	
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	





Mr Andrew Murashev

PARTICIPANT								
Gender	☐ Mr	Ms	Title					
First name	Andrew							
Last name	Murashev							
Position	Head of ir	novation departm	ent					
ORGANISATION	N DETAILS							
Organisation name	CJSC "So	uth-Ural innovativ	ve-techno	ological center"				
	somolskiy av	. 29		-				
ZIP * 45413	8	City * Chelyab	insk	Country *	Russia			
	3324351		Fax +	7(351)741-45-13				
Email * andrey	.murashev@rp	ok-su.ru	Web w	ww.itcural.ru				
Employees	1-10	30		51 - 250	250 ±			
Organisation type	Higher F	Education	Re:	search tion		other		
Department	Innovation	department						
Short description of your company or organization	researches in Chelyabi purpose of them in oth	in the sphere of en nsk. Also we repro this project is to su er countries in ord	ergy savi esent an i upport in ler to dev	ing. Energy is one international project novative companie elop collaborative	ct Gate2RuBIN in ou	ons of innovative activity r region. The main tions and find partners for e have relevant		
TOPICS OF INT	EREST REGA	RDING THE CA	LL FOR	"INNOVATION	PROJECTS"			
Sub-topic of expertise	ICT Biotechn	Materials Materials Energy ology	S	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies		
Other (Free keywor	ds) Ener	Other (Free keywords) Energy saving, energy management, renewable sources of energy.						





PROJECT IDEA(S)	
Short description of project	South-Ural innovative-technological center represents interests of several companies which have projects in the sphere of alternative energy and energy saving. The projects connected to the topic of alternative energy are related to producing plants working on the basis of methane fermentation of manure for producing organic fertilizers and biogas, and construction of solar collectors which use energy of the sun to provide remote districts with electricity and heat water. Another project is creation of energy efficient building by using intellectual complex system. The system built on the basis of intellectual devices: sensors, actuators, controllers.
Description of scientific expertise offered	We have close partners relationship with one of the biggest universities of Russia which is called South-Ural State University. It provides us with experimental equipment and scientific expertise. The university has its development in such spheres as solar energy, program-technical complexes for managing power grids, heating systems, illumination systems.
Description of technical expertise offered	Application of fertilizers allows to increase the crop capacity of the fields, reduce the costs of agricultural products. The process allows to diminish bacterial contamination of soil, to eliminate entering nitrogen in water, decrease pollution of atmosphere. Treatment of organic stuff on the plant helps to improve sanitary and hygienic conditions of people's life. In contrast to existing analogues the developed plant has a high production rate. The technology gives dual utility, because finished product includes fuel and fertilizers. Solar collectors based on combined usage of renewable and non-renewable sources of energy. It requires the specific weather conditions in Chelyabinsk region. It allows to provide remote districts with necessary amount of energy during the whole year. Expertise in the sphere of energy efficiency in housing and communal services. Project connecting with using intellectual IT technologies, different sensor for movement, pressure, temperature, consumption measurement and actuators which managing verse and non-reverse drive with necessary protection.
Description of requested partner scientific expertise	The parner should have necessary work experience in this fields and also equipment for testing new technical ideas.
Description of requested partner technical expertise	 Photocoltaic Solar Power, both traditional and concetrated Termodynamic Solar Power, both big scale and small scale Biogas plants IT complex for managing intellectual energy saving systems
Potential partners (name, organisation, address)	The Metallurgical Industrial Research & Technology Development Center in collaboration with the University of Thessaly, Department of Mechanical Engineering Greece

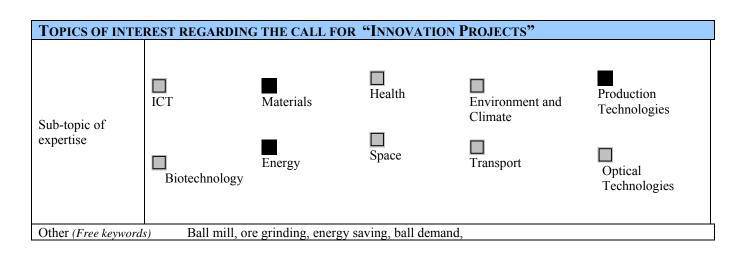




Mr. Sergey Pankov

PARTICIPANT							
Gender	☑ Mr	☐ Ms	Title				
First name	Sergey						
Last name	Pankov						
Position	Director						

ORGANISATION DETAILS							
Organisation name	"Ora-meta	al-UGGU"					
Street *	Kuibysh	ev St., 30					
ZIP *		City * Ye	katerinburg	Country *	* Russia		
Phone * +7 (343)	257-72-08		Fax	·			
Email * ser_panl	kov@list.ru		Web				
Employees	1-10		11 - 50	51 - 250	250 +		
Organisation type	Higher E Institution	Education	Re Institu	esearch ution	Company	other	
Department							
Short description of your company or organization	"Ora-metal	l-UGGU'' w	as founded as	a result of winnin	g federal grant.		



PROJECT IDEA(S)	
	The main idea of the project is reducing of ball and energy demands in a process of ore crushing in a





Short description of project	ball mill.
Description of scientific expertise offered	For purpose of realization main idea of project was made a patent analysis and created both matrix of chemical composition and models of energy saving modes of work process ball mill.
Description of technical expertise offered	As a result of already performed work we can submit developed and patented chemical composition and technology of balls production.
Description of requested partner scientific expertise	Potential partner should be somehow connected with mining problems in area of milling different materials, so their scientific base should contain various statistic data, academic articles and so on.
Description of requested partner technical expertise	We are looking for partner who can provide us a ball mill for carrying out our experiments. At least possible partner must have a laboratory for conducting researches connected with milling.
Potential partners (name, organization, address)	Any organization connected with milling: processing plants, research institutes, laboratories, commercial companies.





Dr Nikolay Polyakov

PARTICIPANT		
Gender	☐ Mr	Title Doctor
First name	Nikolay	
Last name	Polyakov	
Position	Director	

ORGANISATION DETAILS							
Organisation name	Central Resea	earch Institute	for Corrosion	and certification	(INO SCC))		
Street *	Leninsky Pı	rospekt, 31, bu	ilding 5				
ZIP * 119071	(City * Mosco)W	Country *	Russia		
Phone * 4959554	012		Fax 495	9525648			
Email * cartec-co	m@mail.ru		Web				
Employees		11 - 5	50				
Organisation type	e Research Institution						
Department							
Short description of your company or organization	pipes, heating Together with boilers design	The Institute is engaged in conducting research in the field of corrosion protection of energy equipment, pipes, heating pipes, as well as the protection of the environment by burning fuels, including biomass. Together with the Tambov State Technical University Institute participated in the development of high-boilers designed to burn low-grade solid fuel. In the now established low-volume production of these boilers, which are used in different regions of Russia					

TOPICS OF INTE	REST REGARDIN	G THE CALL FOR	"INNOVATION	PROJECTS"	
Sub-topic of expertise	ICT Biotechnology	☐ Materials ☑ Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Sub-topic of expertise					





		T ROGRAMME	
		Environment and	
	Energy	Climate	
Other (Free keywords)	Biofuels, crop residues, combustion	vithout formation of agglomerates of slag, fluidized be	ed,
boilers			

PROJECT IDEA(S)	
Short description of project	Development of small power boilers to burnpellets made from crop waste (straw, sunflower husks, millet, rice, etc.) with maximum efficiency and without forming slag agglomerates with minimal emissions of carbon monoxide and ash particles into the atmosphere
Description of scientific expertise offered	Requires scientific examination of the method of monitoring the process of formation of agglomerates of slag and defluidizationi processes in fluidized bed combustion of straw and similar pellets.
Description of technical expertise offered	Requires technical expertise of the secondary air supply system for combustion of volatiles, as well as examination of the fuel supply system, automation and control of the boiler.
Description of requested partner scientific expertise	Research organization studying the processes of combustion in a fluidized bed, with respect to boilers of low power
Description of requested partner technical expertise	Industrial enterprises engaged in the production of small boilers monosti, which use biomass
Potential partners (name, organisation, address)	Centre for Research & Technology Hellas /Institute for Solid Fuels Technology & Applications (CERTH/ISFTA) Athens Branch Office Mesogeion Av. 357-359 GR 152 31 Xalandri Tel +30 210 6501771 Fax +30 210 6527539 URL: http://www.lignite.gr e-mail: n.nikolopoulos@certh.gr, niknik@fluid.mech.ntua.gr PUSCH AG Energy Company, Auf der Weid 1-15, D-56242, Marienrachdorf, Germany, tel. +492626925690 ZAO SMNU "Voskresenskoe", Rudnichnaya street, 63, Voskresensk, 140200, Russia, tel. +74964420356; ZAO "SouzPrommontazh – Tambov", Montazhnikov street, 10, Tambov, 392010, Russia, tel. +74752556413.





Mr Mustafin Ratmir

PROJECT IDEA(S)

PARTICIPANT						
Gender	☐ Mr	☐ Ms	Title			
First name	Mustafin					
Last name	Ratmir					
Position	production	director				
ORGANISATION	DETAILS					
Organisation name	NanoMeT	, Ltd				
Street *	Ufa					
ZIP * 450000		City * Ufa		Country *	Russia	
Phone * +7-927-9	95-05-308		Fax			
Email * hkamil@	mail.ru		Web		,	
Employees	1-10	11 -	50	51 - 250	250 +	
Organisation type	Higher E Institution	ducation	Re Institu	esearch ution	Company	other
Department						
Short description of your company or organization	severe plast length gaug established.	ic deformation ed for further ap The number of	(SPD) tech oplication research a	nniques. By the preson in manufacturing mound development act	ent moment pilot pro edical items (implant ivities has been impl	
TOPICS OF INTE	REST REGA	RDING THE (CALL FOI	R "INNOVATION	Projects"	
Sub-topic of expertise	ICT Biotechno	Materi Materi Energy		Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keyword:						reciniologies
Said (1 ree keyword)	'/					

Establishment of a joint creative and design bureau for development, manufacturing and certification





	PROGRAMME
Short description of project	of nanotitanium and items made thereof for medicine and industry
Description of scientific expertise offered	The enterprise employees are leading the world-known scientists in the sphere of materials nanostructuring via the SPD techniques. NanoMeT Ltd. is a participant of Russian projects aimed at studies of biological properties of nanostructured titanium.
Description of technical expertise offered	Pilot production-line with a capacity of 2.5 tonnes per year in accordance with the technical specifications is offered. The production line has unique patented equipment developed by the enterprise employees. At the moment the production is at the final stage of certification of the quality control management in accordance with the requirements of ISO 9001-2008.
Description of requested partner scientific expertise	A partner should be experienced in design, should have infrastructure, logistics for manufacturing pilot batches and introduction of new developments from high-strength metallic materials.
Description of requested partner technical expertise	In-house or rented equipment for conducting research and development activities in the field of nanomaterials is requested. A partner should have experience in interaction with representatives of aviation, mechanical engineering, medicine.
Potential partners (name, organisation, address)	





Mr. Vasily Shubin

PARTICIPANT				
Gender	₊ □ Mr	Ms Ms	Title	Circular acid-mediated method of metal extraction
First name	Vasiliy			
Last name	Shubin			
Position	Director			
First name	Vladimir			
Last name	Lomtatidze			
Position	Deputy Dire	ector		

ORGANISATION DETAILS								
Organisation name	Organisation name "Khimintech" Limited Liability Company							
Street * Prosp	ect Lenina							
ZIP * 620062	2	City	* Ekater	rinburg		Country *	Russia	
Phone * +7922135	54755			Fax	+7(343)	3704046		
Email * olam45(@mail.ru			Web				
Employees	1-10		□ 11 - !	50 51 - 250		250 +		
Organisation type	Higher Education Institution			☐ Re Institu	esearch ution		Company	other
Department								
Short description of your company or organization	The compa wastes by h					action of me	etals from ore, was	ste piles, slag and other

TOPICS OF INT	TEREST REGARDING	G THE CALL F	FOR "INNOVATION	ON PROJECTS"	
Sub-topic of expertise	ICT	Materials	Health	Environment and Climate	Production Technologies
CAPCICISC	Biotechnology	∐ Energy	∐ Space	∐ Transport	Optical Technologies
Other (Free keywo	ords) pure metals,	hydrometallurg	gy, acids, wastes, eco	ology	

PROJECT IDEA(S)	
Short description of project	The project is based on the technology of acid extraction of metals from ore, waste piles, slag and other wastes and their deposition from acid solutions in the form of oxides.





Description of scientific expertise offered	The proposed acid method consists in converting metals into an acidic solution (agitation leaching), and their extraction from the acidic solution in pure form as oxides. The technology is implemented by 90% in the serial hardware at the atmospheric pressure and boiling points of solutions, with no expensive chemicals. It has been successfully tested for obtaining Mg, Mn, Ti, Ni, Fe, Cu, Al, Mo, Si, and rare earth metals
Description of technical expertise offered	The proposed technology allows to extract pure metal oxides from wastes, refractory and base ore, slag, slime, dust, cakes and other wastes by hydrometallurgical method, with no use of furnaces, bringing all related products to marketable purity
Description of requested partner scientific expertise	Scientific and engineering centers of metallurgical and environmental focus
Description of requested partner technical expertise	Producers of salts and metals
Potential partners (name, organisation, address)	DSM "Dead Sea Magnesium", Israel and other producers





Dr Sergey Vilcheck

PARTICIPANT							
Gender	🖸 Mr	☐ Ms	Title	Dr			
First name	Sergey		•				
Last name	Vilchek						
Position	Director						
ORGANISATION	DETAILS						
Organisation name	BioIstEn L	LC					
Street *	11, Titova S	treet, Office 54					
ZIP * 630054		City * Novos	ibirsk	Cor	ıntry *	Russia	
Phone * +7 (383)	314-80-58		Fax +7	7 (383) 314-	80-58		
Email * sv19550	03@yandex.r	u	Web 1	n∖a			
Employees	1-10 V	11 - 9	50	51 - 25	50	250 ±	
Organisation type	☐Higher I Institution	Education	Re Institu	esearch ation	×	Company	other
Department	N/a						
Short description of your company or organization	of your company equipment for implementation of the technology for converting organic containing materials into						
TOPICS OF INTE	REST REGA	ARDING THE C	ALL FOI	r "Innov	ATION]	Projects"	
Sub-topic of	ICT	□ Materia	nls	Health		× Environment and Climate	Production Technologies
expertise	Biotechn	× Energy ology		Space		Transport	Optical Technologies

PROJECT IDEA(S)	
	Production, sales (leasing, franchising) of equipment for converting organic containing wastes into
Short description of	hear and energy carriers and/or for alternative energy based on processing of biomass. Development

Other (Free keywords)





	PROGRAMME
project	of services for processing of organic wastes and converting them into energy and energy carriers.
Description of scientific expertise offered	The technology combines advantages of gasification in fluidized bed of catalysis and advantages of rotating drum-like devices. The technology eliminates shortages of prior art as well. There is an opportunity to scale the technology within a wide range of production capacity without changing the major design. It also allows to gasify the products at comparatively lower temperatures.
Description of technical expertise offered	Innovation aspects of technology consist in creating for the first time the conditions for interaction of gaseous and/or liquid materials with solid and/or liquid materials in practically entire volume of processed materials as in a fluidized bed in a horizontal rotating drum-type device. Application of the technology in a single production line allows to convert any organic wastes including of agricultural origin into power and at the same time to produce energy carriers, e.g. in the form of a syngas. The main expertise of the technology developer is a capacity to design and develop both large and compact installations. For example, a compact plant may have the following parameters: volume of equipment ≤ 0.8 cubic m, weight ≤ 80 kg, power ~ 10 kW. There is practically no upper power limit. The plants can generate tens of megawatts and more. So the technology may be applied for processing small amounts of biomass (e.g., from a few kilograms per day) to processing hundreds of tons of biomass a day.
Description of requested partner scientific expertise	Companies which have a need to develop technologies for processing carbon-containing wastes. Companies that manufacture equipment for biomass processing. International venture capital investors who finance projects to create technology-based alternative energy sources.
Description of requested partner technical expertise	The company is seeking for a partner to apply jointly for ERANET RUS funding in order to implement a project for discovering new applications of the technology, finalizing R&D and adapting the technology to new applications as well as for prospective forming of joint ventures engaged in manufacturing, sales, leasing, and franchising of equipment for converting organic materials into heat and energy carriers and/or for biomass based alternative energy. A partner from the target countries should be represented by a manufacturing and/or engineering company specialized in development and/or manufacturing of equipment for processing of organic wastes and for alternative energy with an experience in equipment design, in starting up new product lines and sales in Europe and worldwide.
Potential partners (name, organisation, address)	N/a





Mr. Anatoly Volkov

PROJECT IDEA(S)

Short description of

PARTICIPANT						
Gender	☐ Mr	Ms	Title			
First name	Anatoly					
Last name	Volkov					
Position	Manager					
ORGANISATION	N DETAILS					
Organisation name	e Scientific	and Production (Company "Rute	niy"		
Street * Pushkina	9a, office 20	1				
ZIP * 620075	<u> </u>	City * Yekater	inburg	Country * R	ussia	
Phone * +7 963	0342165		Fax +7 (3434	15) 3-15-19		
Email * vlina@	list.ru		Web			
Employees	1 -10	11 - 5	0 5	1 - 250	2 50 +	
Organisation type	Higher E	Education	Research	n [2	Company [other
Department						
Short description of your company or organization	sectors. The sphere of ne	e aim is to promo	te its development to its development to the state of the	ent to foreign in the production in	nachine building, meta markets. Company sta needs. The company h	aff is competent in the
TOPICS OF INTI	EREST REGA	RDING THE CA	ALL FOR "IN	NOVATION I	PROJECTS"	
Sub-topic of expertise	ICT Biotechn	⊠ Materia ⊠ Energy	No.	alth	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keywork	ds)					<u> </u>

The company offers electron beam technology for melting and casting of titan and electron beam

furnaces. Its distinctive features are: low cost, small sizes, high efficiency. Electron beam furnace





	PROGRAMME
project	doesn't have either a charge-feeding device with a vacuum chamber, nor a direct chill mold with a vacuum chamber or a mechanism for drawing the ingot and mines. The new furnace has only the upper and lower molds. Additional novelty of this furnace is that layer-by-layer metal melting in the upper mold occurs by the method of zone refining. Metal refining on the furnace is carried out on a deeper level than on conventional beam furnaces. Overall dimensions of the new furnace, which produces 6 tons of titans per shift. The dimensions of a furnace, which produces only 200 kg titans per shift are 35x35x15 meters. For comparison the volume of the old furnace is 30 times larger and its output is 30 times lower. The new electrom beam furnace doesn't have any inside transfer mechanisms, metal melting is transfered only under beam and gravity. This characteristic allows receiving significant benefits over the old-type furnaces by reducing energy consumption in up to 2 times. The company is looking for a partner for a joint testing and comissioning. Electron beam technology is demanded on the market, as it produces metal of the highest quality. The equipment is of small sized and has a high production speed. When using this equipment, the costs of the produced product on the market are expected to reduce sharply. Technology can be used on any metallurgical enterprise.
Description of scientific expertise offered	The company has experience in building and designing of ferrotitanium plant in China; designed titanium plant in China; built 3 impulse die forging furnaces, furnace for titan casting; designed and built scull furnace, designed a line for rolling titan wire.
Description of technical expertise offered	35 patents for inventions the sphere of metallurgy and machine building; 5 patents in the sphere of energy; 3 patents in the sphere of nanomaterials and diamonds. Publications in scientific magazines: "Science and Life", "Tool of Siberia", international magazine "Titan". The book "New Metallurgical Processes and Equipment for titanium alloys production" was published in Russian and English.
Description of requested partner scientific expertise	The requested partner should have understanding in titanium production. He/She should have a scientific laboratory, experimentation and researches experience with titanium.
Description of requested partner technical expertise	The requested partner should have understanding in titanium production, titanium market access. He/She should have equipment for titanium processing, industrial premises, storehouses.
Potential partners (name, organisation, address)	Magnesium-titanium enterprise in Fushun, China; machine building company ALD, Germany





Mr Vladislav Vasiljevich Zhukov

PARTICIPANT			
Gender	⊠Mr	☐ Ms	Title Nanodefective AgClxBryI1-x-y:Tl\(\Gamma\) crystals and nanocrystallyne Infrared and scintillation lightguides (2-40 micron) production organization
First name	Vladislav '	Vasiljevich	
Last name	Zhukov		
Position	Director		

ORGANISATION	DETAILS						
Organisation name	Organisation name 'Scientific and Production centre 'Silver Optics' LTd.						
Street *	Street * Geologov 57 'C'						
ZIP * 624090		City * Upper Sverdlovskaya	11 / Cuntru		Country *	Russia	
Phone * 8(343)37	54445, 8922	1126496	Fax				
Email * zhlv@m	ail.ustu.ru		Web				
Employees	1-10	⊠11-50)	5	1 - 250	250 +	
Organisation type	Higher E Institution	ducation	Re Institu	search ition	1 [⊠ Company	other
Department							try, aerospace industry, MIC, radiation monitoring, nuclear
Short description of your company or organization	At this time staff consists of 15 employees and 10 subcontractors. Main activities: 1. Development and production of a new class of nanodefective crystals with defects and nanocrystalline waveguides for mid-and far-infrared spectrum (2-40 micron), as well as fiber-optic scintillators for measuring ionizing radiation. 2. Fiber optic systems used extensively, including for process control in online – mode design and production. List of main scientific works on the subject of the project: 150 scientific papers and 50 patents of the Russian Federation. At the 36th International Exhibition of Inventions, new techniques and technologies. Geneva, Switzerland, April 2008 - won a gold medal and a diploma. At the 37th International Salon of inventions, new techniques and technologies. Geneva, Switzerland, April 2009 - received a silver medal and a diploma. At the International Exhibition of patents and inventions «Brussels Eurica - 2001" received a gold medal and a diploma with honors.						

TOPICS OF INTE	REST REGARDING	G THE CALL FOR	"Innovation	Projects"	
Sub-topic of expertise	ICT	⊠ Materials	⊠ Health	Environment and Climate	Production Technologies





	Biotechnology	Energy	⊠ Space	Transport	Optical Technologies
Other (Free keyword	s)				

PROJECT IDEA(S)	
Short description of project	The main product under development: crystals of metal halides with adjustable them nanodefects who are carriers of the special properties; a new generation of nanocrystalline fibers on their basis for mid-and far-infrared range (2-40 microns). Company is able to develop and produce wide applications fiber-optic system, including process control online - mode.
Description of scientific expertise offered	New models of chemical and phase transformations during the hydrochemical synthesis of multicomponent solid solutions of metal halides. New methodology for managing the crystal growth and creating nanodefects in them. Crystal structures by extrusion of nanocrystalline photonic infrared optical fibers and fiber-optic scintillators calculation model.
Description of technical expertise offered	New technological equipment for the synthesis of raw materials, crystal growth and chemical - machining, as well as press and tooling for optical fibers production. Products certification stand.
Description of requested partner scientific expertise	Develop and explore the physical and chemical properties of new Ag _x Tl _{1-x} Br _y I _{1-y} , Ag _x Tl _{1-x} Cl _y I _z Br _{1-y-z} crystals and fibers for the spectral range of 2-40 microns.
Description of requested partner technical expertise	Develop environmentally friendly, waste-free, energy-saving technologies for synthesis of these products. Industrial processes, petroleum, pharmaceutical, food and chemical industry in the range of 2-40 microns control systems design and production. Fiber lasers and filters of spatial frequencies for space research 2-40 microns development
Potential partners (name, organisation, address)	A.R.T. Photonics GmbH, Berlin, Germany. E-mail: www.artphotonics.de Tel Aviv University, Department of astrophysics, professor. A. Katzir Tel-Aviv, Israel.





<u>Turkey</u>

Dr. Seval Korkmaz

PARTICIPANT			
Gender	☑ Mr	X Ms	Title Dr
First name	Seval		
Last name	Korkmaz		
Position	Cell Cultu	are and In Vitro Screening Supervisor	

O RGANISATION	DETAILS						
Organisation name	Abdi Ibral	nim Ilac A.S.					
Street *	Hosdere	Mevkii Tunc Cd. No:3 Es	senyurt				
ZIP * 34555		City * Istanbul				Country *	Turkey
Phone * 90 212 6	226850			Fax	90 212	6231952	
Email * seval.ko	rkmaz@abdi	ibrahim.com.tr		Web	www.al	bdiibrahim.co	om.tr
Employees	1-10		11 - 9	50	5 1	1 - 250	X [□] 250 +
Organisation type	Higher I		Resear	_	⊠ Industry	y SME	other
Department	R&D Cente	er					
Short description of your company or organization	Abdi Ibral with almoleader of t 2010) and Turkey. A Abdi Ibral Pharmaceurrent glointernation	e description/mission aim (AI) Pharmaceuticals st 100 years of tradition. I he pharmaceutical sector the number of boxes sold dditionally Abdi Ibrahim aim is the first and the onl aticals Company in the we obal presence and to conti	From 200: in Turkey (> 130 m also expo y Turkish orld accor nue the g ors worldv e develop	3 onwards in terms in terms in terms in terms on the companion of the companion of the court about the court wide with ed generic	s, Abdi of annu ith a ma ducts to y, which ie IMS ove the in long ar cs that of	Ibrahim Phar nal turnover (8 arket share of to 15 countries th is amongst Data. Our ain market average and established consist of 40%	maceuticals is the 850 million USD in 7.6 percent in 8. the top 100 n is to enlarge our ge – domestic and





Al present in all major therapeutic areas such as; Respiratory, CNS, Muscle-Skeletal, Alimentary and Track Metabolism and Blood & Blood forming organs and growing well in Gastro-intestinal and we aim to strengthen our portfolio in the areas of Oncology, Metabolism/ Endocrinology and Anti-InfectiveS. Al has the highest share of voice with a field force size of > 2.000 sales reps, trained to detail to specialist doctors.

Abdi İbrahim recognizes its R&D capabilities as a vital component of its business strategy that will provide the company with a sustainable, long-term competitive advantage. The R&D center is the first standard center in Turkish Pharmaceutical Industry accredited by the Ministry of Industry and Trade. 125 scientists from different scientific diciplines have been worked at R&D department of AI.

Internationally we have subsidiaries in Algeria (where we are amongst the top 10 companies), Russia, Kazakhstan, Ukraine, Azerbaijan and Georgia.

OUR VISION: Growing faster than the market, continue to be a preferred and respected company in Turkey and become a Global Player.

OUR MISSION: Strive continuously for a better quality of human life. Be at the service of medica science, humanity.

Abdi Ibrahim Pharmaceuticals is fully committed to satisfy its licensors and partners requests. We are experienced with different partnering models and seek for the best solution to reach a mutual benefit based on a long-term commitment. Our special interest is in In-licensing opportunity for the Turkish territory where we can use our strong position and Marketing experience for rapid penetration as well as for the markets, we are present. Other partnerships like Co-development proposals and Toll manufacturing opportunities are welcome.

Some of our current licensors are:

Allergan, Dompe, Farmaceutici Damor, Dentinox, Gifrer, Grünenthal, HRA Pharma, Italfarmaco, LEO Pharma, LGLS, Madaus, Medinova, Meiji, Molteni, Nycomed, OM Pharma, Orion, Otsuka, Pfizer, Pharmavite, Reckitt Benckiser, , Roha, Rottapharm, Dr. Willmar Schwabe, Seven Seas Healthcare, UPSA Laboratories, Uriach, Vifor

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials
quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems viral infections: HIV and Hepatitis





auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (<i>Free keywords</i>) Neurodegenerative Diseases, QSAR, Docking, High-throughput Screening, Multi-targeted Drug Design, In silico Screening, In Vitro Screening, computer-aided drug design, intestinal permeability, blood-brain barrier

PROJECT IDEA(S)	
Short description of project	Alzheimer's disease (AD) is the most common neurodegenerative disorder affecting around 15 million people worldwide. Because of the increase in life expectancy already for 2020, the number of cases will rise to about 30 million people worldwide. A sufficient amount of evidence suggests, for example, that antioxidants from the diet can influence the occurrence of neurodegenerative disorders such as AD and Parkinson's disease (PD). In particular, the antioxidant flavanols- catechins have shown great promise. Previous studies have shown that the polyphenol (-)-epi-gallocatechine gallate (EGCG), found in large amounts in green tea, has neuroprotective effects by its properties such as antiamyloidogenic, ion chelating, antioxidant, antiinflamatory, esterases inhibitory, COX inhibitory and its modulatory effects on TAU proteins and several different intracellular mechanisms. In current project it is planned that EGCG structure based new therapeutic group can be designed by in silico methods, synthesized and their effects on Alzheimer mechanisms can be tested by in vitro drug screening methods. Intestinal and blood-brain barrier permeability studies of new synthesized drug candidates will be exerted by in vitro techniques. During the project, in silico methods (QSAR, docking, PASS), synthesis of new molecules and in vitro drug screening methods on neuroprotective/anti-Alzheimer group can be obtained or at least effectiveness of subtitutions can be better identified at the end of current project. According to our data we will haveobtained at the endof this project, further in vivo and clinical studies will be planned as an other project. Approximately 10.000 new designed molecules will be search and about 50-100 molecules will be synthesized and their in vitro pharmacological effects will be evaluated.
Description of scientific expertise offered	Collaborators of this project should be experienced on those fields; Computer-aided drug design QSAR (Qantitative Structure activity relationship) expertise Expertises for docking: Neuroprotectivemechanisms (like, beta-Amyloid, esterases, BACE, MAO) In silico high-throughput screeing of new designed drug candidates Expertises for PASS (Prediction of biological activity spectra for substances) Pharmaceutical Chemists for synthesis of new molecules Synthesis of neuroprotective drugs High- throughput cell culture methods of neuroprotective mechanisms Expertises for intestinal and blood-brain barrier permeability
Description of	Some technicians who is experienced on scientific details of this project will be employed.





technical expertise offered			
Description of requested partner scientific expertise	Especially it will be needed who works on docking of specific mechanisms of Alzheimer Diseases		
Description of requested partner technical expertise			
Potential partners (name, organisation, address)	 Dr. Seval Korkmaz (Abdi Ibrahim Pharmaceuticals, Istanbul, Turkey) Prof. Dr. Anatoli Dimoglo (Gebze Institute of Technology, TURKEY) Assoc. Prof. Dr. Athina Geronikaki (Aristotle University of Thessaloniki, GREECE) Prof. Dr. Bachurin (Russian Academy of Science, RUSSIA) Dr. Fliur Macaev, (Institute of Chemistry, Academy of Sciences, MOLDOVA) Assoc. Prof. Dr. Maria Laura Bolognesi (Bologna University Fac. Of Pharmacy, Department of Pharmaceutical Chemistry) Dr. Manfred Windisch (JSW Life Sciences, Graz, AUSTRIA) Prof. Dr. Romeo Cecchelli (Artois University, FRANCE) Dr. Seval Korkmaz (Abdi Ibrahim Ilac, TURKEY) 		





Collaborative S&T projects

France

Prof. Jan Borm

PARTICIPANT					
Gender	Mr	Ms Ms	Titl	e Professor	
First name	Jan				
Last name	Borm				
Position	Director	of CEARC			
ORGANISATION	N DETAILS				
Organisation name	European	Center for the Arctic (CE.	ARC)		
Street * 11 b	oulevard	d'Alembert			
ZIP * 78280)	City * Guyancourt		Country *	France
Phone * +33802	285509		Fax		
Email * eugeni	a.shadlova@u	vsq.fr	Web		
Employees	1-10		11 - 50	51 - 250	2 50 +
Organisation type	Higher		Research Institution	Industry SME	other
Department					
Short description of your company or organization Created in 2009, European Center for the Arctic is a public research laboratory at the University of Versailles Saint-Quentin-en-Yvelines. CEARC research is based on multidisciplinary approach and covers different fields: geo- and environmental sciences, interaction between manenvironment, social sciences and humanities					
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"					
Sub-topic of exercise					
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics quantum optics					





2. Environmental research and cl matic changebiodiversity and ecophysiology of natural ecosystems climate change in the arctic and subantarctic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (Free keywords) climate change, environment, human ecology, geography, anthropology, socio-economic dynamics

PROJECT IDEA(S)	
Short description of project	This project will be dedicated to the impact of climate change on the people of the Northern territories of the Russian Federation, with a particular attention to the Lena and Ob rivers, as well as the Kola peninsula.
Description of scientific expertise offered	The European Center for the Arctic (CEARC) is an interdisciplinary reseach laboratory with expertise in the geosciences, social and human sciences, working in close association with the climatologists and specialists in sustainability of University of Versailles Saint-Quentin en Yvelines (UVSQ).
Description of technical expertise offered	The results of the project will be fed into the multidisciplinary databank of CEARC operated together with the Institute of Geophysics of the Russian Academy of Science.
Description of requested partner scientific expertise	Firsthand knowledge of the fields of investigation in the Russian North (geography, ecology, anthropology, socio-economic dynamics)
Description of requested partner technical expertise	expertise in the logistics of expeditions to the Russian North
Potential partners (name, organisation, address)	The Federal University of the Russian Northwest, Arkhangelsk, the Federal University of Russian Northeast, Yakutsk, Institute of Geophysics/Russian Academy of Sciences, Moscow





Prof. Eric Crubézy

PARTICIPANT			
Gender	X Mr	☑ Ms	Title : University Professor (Anthropobiology)
First name	Eric		
Last name	CRUBEZY		
Position	Dir. UMR 5	288 du CNRS	

ORGANISATION DETAILS							
Organisation name UMR 5288-AMIS (CNRS/University of Toulouse 3/University of Strasbourg							
Street *37, allées Ju	les Guesde						
ZIP *31073		City *Toulouse Cedex			Country *Fr	rance	
Phone *+ 33 (0)5 6	1 55 80 94			Fax +33	(0)5 61 55 80 80		
Email *crubezy.eric@free.fr				Web: http://www.anthropobiologie.fr			
Employees	□ 1-10		11 - 5	50 X	51 - 250	250 +	
Organisation type	Higher Education Institution X Research Institution Industry SME other						
Department	INEE du C	NRS					
Short description of your company or organization	The Laboratory "Molecular Anthropology and Image Synthesis" AMIS of the CNRS unit/University of Toulouse/University of Strasbourg includes 40 members of Universities and of CNRS who work in the area of fundamental studies in anthropobiology in close connection with industry and medicine for studying the opportunities for application of the obtained findings in legal medicine (degraded DNA, virtual postmortem examination) orthodontics and surgery. The originality of the laboratory is in realization of its research taking into consideration a large area of investigations, the territory work and the high precision studies in the area of palaeogenetics, genetics and image synthesis. The last eight years of anthropobiological research on the settlement of eastern Siberia has allowed to the AMIS laboratory, UMR 5288, in collaboration with Krasnoyarsk State Medical University and North East Federal University (Yakutsk), to plan research about the coevolution of man and environment in Arctic (Verkhoyansk) and subarctic region from Siberia (Central Yakoutia and Viljujsk). In France, our grant supports are first the French Ministry of Foreign and European Affairs (MAEE) for the archaeological part in Verkhoyansk in collaboration with the Interdisciplinary Laboratory of Evolution of Nature and Man in the North from the North East Federal University, second the French Polar Institute Paul Emile Victor (IPEV) for the project HUMAD n° 1038 (Coevolution of man and environment in Siberia) and for the Russian part the: Interdepartmental Laboratory of Integrative Anthropology from the Krasnoyarsk State Medical University and Interdisciplinary Laboratory of Evolution of Nature and Man in the North from the North East Federal University. Until 2010 the collaboration was a strong collaboration between French and Russian researchers but since the end of 2010 an international department (international laboratory COSIE) which will unite the researches of the three departments (two Russians on French) is planed by our institutions.						





TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems X climate change in the artic and subartic regions X Material sciences connected with energy convergion and storage
3. Research on serious human health problems
viral infections: HIV and Hepatitis
auto-immune diseases neurodegenerative diseases
neurouegenerative diseases 🔄
4. Contemporary socio-economic studies
Social security systems and welfare state (in the context of globalization)
Labour, labour market, and employment Transformation of the educational system
Areas of activity (<i>Free keywords</i>): Anthropobiology – palaeogenetic – biodiversity and human ecology – infectious diseases - parasitology

PROJECT IDEA(S)

<u>Project</u>: Coevolution of man and environment in a dynamic perspective including the last five centuries and present days populations and environments. A special focus on the interaction between man/parasitism/infectious diseases (especially tuberculosis) will be done.

Interest:

tuberculosis.

- . Elective research: Biodiversity and human ecology with exceptional sampling.
- . Applied research : Implications in public health for Arctic and Subarctic populations (autochthonous and modern ones) from Siberia will be precised.

Short description of project

Until now we have try to understand and precise the patterns of settlement of Arctic and Subarctic regions from Siberia with a special interest for the north east. In this field our specificity with our Russians colleagues is to study well preserved human, frozen bodies from the last five centuries. These frozen bodies make it possible to study the evolution of the population in a dynamic point of view with comparison over time from ancient and present day data. Several papers have been published since 2002 (two books, one in French in 2007 and one in Russian at the North East Federal University in 2011) and a synthesis in 2010 (Crubezy *et al.*, 2010, <u>Human evolution in Siberia: from frozen bodies to ancient DNA. BMC Evol. Biol.</u>). In the same time, with the resolution and precision of the human settlement on genetics data, the coevolution of man and environment became more and more central in our problematic. We address it with the study of the evolution of parasitism and infectious disease, especially





The choice of parasitism and infectious disease is caused by our discoveries and the interest and specificity of the French and Russian teams.

In the field we have given rise to an epidemic phase of tuberculosis in subarctic associated to the first European people with a peak during the eighteenth century and a decrease. Our first results in Arctic region suggest a move back in time with a peak during the nineteenth century. These epidemic phase suggest also a selection of the population and/or an evolution of the mycobacteria but in any case a coevolution between man and environment which must be more described and analysed (what form of tuberculosis, their evolution, the evolution of the human genome, differences between arctic and subarctic regions, implications for modern populations and public health). In the same time with our colleagues we have just began a massive approach of diagnosis and infectious and parasitism disease in past and present day populations to precise and understand the coevolution of man and disease. For past population our first results using a genomic approach of the whole DNA of the teeth of frozen bodies buried together at the beginning of the nineteen century has been submitted to an international journal in January. Fort the first time at an international level it was possible, without any underlying hypothesis, to detect an ancient bacterium responsible of death. Such studies must be developed and result must be compared to present day populations. For present day populations we have begin a seroepidemiology survey of zoonoses A seroepidemiology survey of nine zoonoses was carried out and Crimea-Congo hemorrhagic fever had an 11.1% seroprevalence rate, indicating that Viljujsk is the most northern focus of this infection may be in relation with climatic changes (Magnaval et al., 2010, Seroepidemiology of Nine Zoonoses in Viljujsk, Republic of Sakha (Northeastern Siberia, Russian Federation), Vector Borne Zoonotic Dis. 2010). This discovery at the border of biodiversity, man and disease had several implications in public health because it suggests a potential involvement of Crimea-Congo hemorrhagic fever agent, or of another member of the Bunyaviridae family, in the genesis of the so-called Viljujsk encephalomyelitis which is an important public health in subarctic regions and which could expand in arctic region with climatic changes.

The French and Russians teams have the possibility to undertake such a large program because they complete one another, the Russians have the deep understanding of the field and of the specificities of their biodiversity and the French team is embarked in the field of ancient DNA, parasitism and infectious disease since more 20 years. It will be useful at that time to develop the program on a wide scale with the participation of partners specialised in climatic changes and/or palaeo environmental conditions to precise the association that we were able to suspect during the last 9 years.

We can propose a first idea of the program which will be of course discussed between the different partners and adjusted, but we think that it prove our capacity to have very quickly fundamental results with an implication in public health.

The first year of the program:

In the field :

- Sampling of well defined present day populations in arctic and subarctic areas for seroepidemiology studies of zoonoses and for identification and genotyping of Mycobacterium tuberculosis complex.
- Precising the epidemic tuberculosis in nineteen century in the Arctic (sampling).
- The climatologic team will define it's program in association with Russian and French team to try to understand relation between man and environments. *In laboratories*:
- Identification and genotyping of Mycobacterium tuberculosis complex species by use of a SNaPshot Minisequencing-based assay in ancient and present day samples (in Russia or in France, the French team is at the origins of one of the test Bouakaze *et al.*, <u>J Clin Microbiol.</u> 2010.)
- Genomic analysis of ancient samples to diagnose ancient epidemic diseases.





	- Study of the evolution of the frequency of the SNP associated to susceptibility to tuberculosis in the human genom from 15 th century until present day.
	Climatologic team : to define.
	The second year of the program:
	Only laboratory and synthesis or only some precisions in the field.
	Last 6 month: publications.
Description of scientific expertise offered	Genetic, palaeogenetics, parasitism, evolution, tuberculosis. 8 years of experience in north Siberia.
Description of technical expertise offered	Palaeogenetics and palaeogenomics methods, parasitology, evolution of tuberculosis
Description of requested partner scientific expertise	Climatology, palaeoenvironmentalists, settlement pattern
Description of requested partner technical expertise	Specialist from the field for parasitism studies, excavations, ecology
Potential partners (name, organisation, address)	In Siberia: - Krasnoyarsk: Interdepartmental Laboratory of integrative anthropology of Krasnoyarsk State Medical University (Pr. Valerian NIKOLAEV or pdt Yvan ARTUKHOV) - Yakutsk: Interdisciplinary Laboratory of Evolution of Nature and Man in the North of North-East Federal University (Pdt Anatoly ALEXEEV)





Dr Gediminas Jonusauskas

TARTICIPANT								
Gender	🖸 Mr	🖸 Ms			Title	Dr		
First name	Gedimin	as						
Last name	Jonusaus	cas						
Position	Senior re	searcher i	n the CNRS					
ODCANICATION	ADETAILS							
Organisation name		1 univers	eitv					
Street *		s de la Li	-					
ZIP * 33405		City *	Talence				Country *	FRANCE
	, 4000 6198	City	Taleffee		Fax	<u> </u>	000 6970	FRANCE
	uskas@loma.	ıı_bordeaı	ıv1 fr		Web		ma.cnrs.fr	
Ellian g.jonusa	iuskas@ioiiia.	u-bordeat	13.11	10.50		W W W .101	ilia.Cili 5.11	
Employees	1-10			10-50	U	⊠ 50-	-250	250 +
Organisation type	Higher	Education	n Institution	Resear Institution		Industry	SME	other
Department	Laboratoire	Ondes e	t Matière d'A	Aquitaine (LO	OMA) –	UMR CN	IRS 5798	
Short description of your company or organization LOMA is a multidisciplinary physics laboratory employing more than 50 researchers, professors and assistant professors. The principal research topics are laser and THz physics, ultrafast optical, acoustic and thermal spectroscopies, nano and microfluidics, molecular films, etc LOMA scientific production: 100 articles, 80 conferences and 30 invited conferences last year.								
TOPICS OF INT	EREST REGA	ARDING	THE CALL	IN "COLLA	BORAT	TIVE S&	T Projec	CTS"
Sub-topic of exerc								
1. Innovative mat ultrahigh-power las intelligent material quantum optics	ser sources and nanomate		echnological _l	processes				
2. Environmental biodiversity and ed climate change in Material sciences	ophysiology of the artic and sul	natural ecc partic regio	osystems 🔲 ons 🔲	orage 🔲				
3. Research on se viral infections: HIV auto-immune disea neurodegenerative	/ and Hepatitis ases		blems					
4. Contemporary	socio-econom	ic studies						





Social security systems and welfare state (in the context of globalization)						
Labour, labour market, and employment						
Transformation of the educational system						
Areas of activity (<i>Free keywords</i>) Molecular photodynamics and electronics, chemical sensors, molecular machines, ultrafast spectroscopies, ultrafast lasers						

PROJECT IDEA(S)	
Short description of project	Tentative title: Nanostructured Inorganic-Organic Hybrid Materials and Photonic Devices for Chemical Sensing in Liquid and Gas Media Objective of this project is the bottom-up development of novel inorganic-organic hybrid sensor devices with tailored properties that allow the selective optical detection of ecologically and biologically relevant analytes. To achieve this goal, a consortium of chemists and physicists will develop probe molecules which may allow the qualitative and quantitative detection of environmentally and biologically relevant analytes, such as SO ₂ , NOx, calcium, arsenic, cadmium, chromium, copper, lead, mercury, silver, uranium/plutonium, PAHs, or CFCs, and integrate them into the optical sensor platforms. The probe molecule or a probing assembly of molecules, both of which may react with or bind to the target analyte, will be embeded or attached to the inorganic-organic hybrid material which will be incorporated into a 3D nano/microstructured polymer support / photonic device ensuring the optimal optical responses of Lab-on-Chip or microfluidic sensor arrangements.
Description of scientific expertise offered	Ultrafast spectroscopical studies (femtosecond transient absorption and time resolved fluorescence) will give the information about the molecular photophysics and photochemistry involved in chemical sensing process, which can lead to propositions about improvements in sensor chemical structure and the 3D photonic device design in order to enhance the selectivity and/or sensitivity of analyte detection.
Description of technical expertise offered	
Description of requested partner scientific expertise	Synthesis of molecular probes, 3D nano/microstructuring of polymers
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Olga Fedorova - Synthesis of molecular probes - Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences, Vavilova str., 28, 119991, Moscow, Russia, voice: +7 (499) 135-80-98, e-mail: fedorova@ineos.ac.ru Roaldas Gadonas - 3D nano/microstructuring of polymers - Laser Research Center of Vilnius University, Sauletekio ave. 10, LT-10223 Vilnius, Lithuania, voice: +370 5 2366017, e-mail: roaldas.gadonas@ff.vu.lt





Dr Jean Jouzel

PARTICIPANT						
Gender	Male	☑ Ms		Title	Dr	
First name	Jouzel			•		
Last name	Jean					
Position	Senior So	cientist at LSCE Saclay (I	Director of	f Researc	h at CEA)	
ORGANISATION	N DETAILS					
Organisation name	: CEA					
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Phone 01 690877	13 or 0684759	0682		Fax 01	69087716	
Email * jean.jouze	l@lsce.ipsl.fr			Web		
Employees	1-10		11 - 5	50	51 - 250	250 +
Organisation type	Higher	Education Institution =	Researce		Industry SME	other
Department						
Short description of your company or organization						
TOPICS OF INTI	EREST REGA	ARDING THE CALL IN	"COLLA	BORATI	VE S&T P ROJEC	CTS"
Sub-topic of exerc	Sub-topic of exercise					
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics						
2. Environmental research and climatic change biodiversity and ecophysiology of natural ecosystems ☐ climate change in the arctic and subarctic regions ☑ Material sciences connected with energy conversion and storage ☐						
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases						





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neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	The project will primarily aim to improve our knowledge of the water and carbon cycles (both climate related) in the sub arctic largely based on the establishment, in collaboration with Dr Zakharov' team, of permanent sampling sites where both greenhouse gases and their isotopes will be continuously measured as well as water isotopes (in water vapor and precipitation). We will aim to optimally combine carbon and water isotopes with dedicated modelling. Other complementary aspects, we are interested in, include paleoclimate studies from isotopes (carbon, hydrogen and oxygen) and permafrost studies.
Description of scientific expertise offered	We have expertise both in water (team of Valérie Masson - Delmotte) and carbon isotopes (team of Philippe Ciais), both teams being associated with this project, and with isotope modeling (both for water and carbon isotopes). On the experimental side, we are running greenouse gases and carbon isotopes measurements in numerous sites (Amsterdam Island, Mace head in Ireland, Greenland,) and we are establishing stations for measurements of water isotopes in Arctic sites as part of an Arctic network. LSCE/IPSL is at the forefront of isotope modeling both for water and carbon isotopes.
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
	Professor Vyacheslav I. Zakharov
	Head of Global Ecology & Remote Sensing Lab
Potential partners	Department of Physics
(name,	The Ural State University
organisation, address)	51 Lenin Ave., Ekaterinburg city
ĺ	620083, Russia Phone / Fax: 7-343-261 67 78
	E-mail: v.zakharov@remotesensing.ru





Professor Vladimir V. Vasin Head of Department of Ill-Posed Problems and Application Institute of Mathematics and Mechanics RAS 16 S.Kovalevskaya street

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Prof. Mioara Mandea

PARTICIPANT						
Gender	🔲 Mr	Ms		Title	Professor	
First name	Mioara					
Last name	MANDEA	Α				
Position	deputy-di	irector of CEARC				
ORGANISATION	DETAILS					
Organisation name	European	Center for the Arctics (CEARC)			
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Phone * +331 80	28 55 09			Fax	<u> </u>	
Email * mioara.	mandea@uvs	sq.fr		Web w	ww.mioara-mandea	ı.eu
Employees	1 -10		11 - 9	50	51 - 250	250 +
Organisation type	Higher	Education Institution	Resear Institution		Industry SME	other
Department						
Short description of your company or organization Created in 2009, European Center for the Arctic is a public research laboratory at the University of Versailles Saint-Quentin-en-Yvelines. CEARC research is based on multidisciplinary approach and covers different fields: geo- and environmental sciences, interaction between manenvironment, social sciences and humanities						
TOPICS OF INTE	REST REGA	ARDING THE CALL IN	"COLLA	BORATI	IVE S&T PROJE	CTS"
Sub-topic of exercis	se					
1. Innovative mater	rials and cutti	ng edge technological p	rocesses			
ultrahigh-power lase	er sources 🔲]				
intelligent materials and nanomaterials						
quantum optics						
2. Environmental research and cl						
matic changebiodiversity and ecophysiology of natural ecosystems						
climate change in the artic and subartic regions 🖂						
Material sciences connected with energy convergion and storage						
3. Research on ser viral infections: HIV auto-immune diseas	and Hepatitis	nealth problems				
auto-infillurie diseas	nc2					





	FROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords) climate change, environment, data analysis, socio-economic dynatecology	mics, human

PROJECT IDEA(S)	
Short description of project	The proposed project focuses on the Arctic region and proposes to study the polar irregular patterns through the implementation of new mathematical tools in data. Algorithms based on Scale-Space Information Flux Approach are proposed to be developed and implemented, and they can be applied to all available data offered by two different regions: Spitzberg, and north of Siberia (from Yakutsk to Tiksi, along the Lena river). The geo-science data analysis may crosscorrelate with knowledge provided by people in northern Yakutia with respect of their own perception of climate change.
Description of scientific expertise offered	CEARC is a very new research lab, but proposes a very broad field of activities, covering a large spectrum of relations between research, education, commercial and industrial activity, governance, society and intercultural mediation to favour sustainable and acceptable development of the Arctic, which requires an integrated approach. Expertise in geophysics and signal processing are offered for this specific project.
Description of technical expertise offered	Members or associated members of CEARC have been involved in Arctic expeditions, have a large experience in implementing geophysical observatories, and in satellite data exploitation.
Description of requested partner scientific expertise	The success of the project needs partners involved in geophysical studies, Arctic environment, data processing. An important part of the project will need development of new mathematical algorithms and their implementation.
Description of requested partner technical expertise	The project might demand the installation of new observational stations.
Potential partners (name, organisation, address)	North-Eastern Federal University Geophysical Institut of Russian Academy of Sciences (Moscow)





Prof. Sylvain Marque

PARTICIPANT							
Gender	☐ Mr	☐ Ms		Title	Profess	eur	
First name	Sylvain						
Last name	MARQUE	<u>C</u>					
Position							
ORGANISATION	N DETAILS						
Organisation name	Université	e de Provence					
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Employees	1 -10		11 - 5	50	51 -	250	250 +
Organisation type	Higher		Research		Industry	SME	other
Department	Scienced of MAtter						
Short description of your company or organization Department gathering chemist and physicist							
TOPICS OF INTI	EREST REGA	ARDING THE CALL IN				Γ Projec	CTS"
Sub-topic of exerc	Sub-topic of exercise Sub-topic of exercise Sub-topic of exercise Synthesis of supramolecular objects- Nitroxides - EPR						
ultrahigh-power las intelligent materials quantum optics 2. Environmental biodiversity and ecclimate change in the	er sources and nanomate research and cophysiology of rhe artic and subsonnected with erious human h	el matic change natural ecosystems partic regions energy convergion and stora					





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neurodegenerative diseases		
4. Contemporary socio-economic stu	dies	
Social security systems and welfare sta	te (in the context of globalization)	
Labour, labour market, and employmen	_	
Transformation of the educational syste	m 🔲	
Areas of activity (Free keywords) DNP – spin-trapping	Organic synthesis – nitroxides – free radical chemistry – EPR – spin labeling –	

PROJECT IDEA(S)	
Short description of project	Development of supramolecular fluorescent quencher based on nitroxide attached cyclodextrines
Description of scientific expertise offered	Synthesis of supramolecular entities – EPR investigation - Nitroxides
Description of technical expertise offered	EPR and synthesis
Description of requested partner scientific expertise	EPR – NMR-Fluorescence – material application
Description of requested partner technical expertise	High field EPR – liquid and solid state fluorescence – material preparation
Potential partners (name, organisation, address)	Prof. Bagryanskaya, International Tomography Center, Institutskaya 3A, Novosibirsk, RUSSIE.





Dr Jacques Ranger

auto-immune diseases

PARTICIPANT							
Gender	X Mr	Ms		Title	Dr		
First name	RANGEI	₹		1			
Last name	Jacques						
Position	Senior Sc	eientist					
ORGANISATIO							
Organisation nam	e INRA						
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Email * ranger	nancy.inra.fr			Web h	nttp//ww	ww.nancy.inr	a.fr
Employees	1-10		11 - 50	0	5 1	- 250	> 250 pers
Organisation type	Higher	Education Institution	Research Institution	I:	ndustry	SME	other
Department	EFPA (Eco	ology of Forest, Meadows	and aquation	e systems	s)		
Short description of your company or organization	food and a	onducted at INRA is detenutrition, agriculture and novations for the good of . This mission adopted by	the environment the society and	onment. I providi	It conting insig	tributes to inght to decision	ncreasing knowledge, on-makers, both public
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLAB	BORATI	VE S&	T Projec	TS"
Sub-topic of exerc							
1. Innovative mat ultrahigh-power las intelligent material quantum optics	ser sources 🔲 s and nanomate		cesses				
climate change in	cophysiology of i the artic and sub	natural ecosystems x	ge 🔲		XX	XXXXX	
3. Research on se							





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neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords) Forest, soils, geochemistry, nutrient cycles,	

PROJECT IDEA(S)	
Short description of project	How climatic changes impact the vegetation equilibrium? How climatic changes impact the soil carbon storage? The objectives are to identify the soil changes, to characterize the mecanisms and the and to formalize the results in models in order to simulate the processes and to predict the changes.
Description of scientific expertise offered	INRA research teams have the expertise in forest science, soil science, microbiology and ecophysiology necessary for developing joint collaborations with Russian partners.
Description of technical expertise offered	INRA has numerous technical experience from classical methodologies to cutting age techniques (isotopy, labelling, molecular biology, dendrochronology). INRA projects lean on long term monitored experimental natural ecosystems sites for climate, vegetation and soils.
Description of requested partner scientific expertise	The requested partner expertise concerns soil science, plant ecophysiology and modeling.
Description of requested partner technical expertise	Database on long term vegetation and soil ; sampling strategy ; model development
Potential partners (name, organisation, address)	Institute of physico-chemical and biological problems in soil science of the Russian Academy of Science Moscow (Dr E BLAGODATSKYA) Sate Academy of Forestry Engineering Voronezh Russia Institute of soil science and agrochemistry of the Russian Academy of Sciences at Novosibirsk (P. Barsukov) And many others





Dr Dominique Raynaud

TARTICIPANT							
Gender	M Mr	□ Ms		Title	Dr.		
First name	Dominiq	ue					
Last name	Raynaud						
Position	Directeur	r de Recherche Emerite C	NRS				
ORGANISATIO	N DETAILS						
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Email * raynaud@)lgge.obs.ujf-ဥ	grenoble.fr		Web			
Employees	1-10		11 - 5	0	5 1 -	- 250	250 +
Organisation type	Higher	Education institution =	X X Reso	_	Industry	SME	other
Department	LGGE						
Short description of your company or organization	fields. LG0	a gouvernent-funded rese GE is a laboratory located nmental studies with a spe	d in the Gi	renoble a	area and	devoted to	glaciological, climatic
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLA	BORATI	IVE S&	Γ Projec	CTS"
Sub-topic of exerc							
1. Innovative mat ultrahigh-power las intelligent materials quantum optics	ser sources 🔲 s and nanomate	ing edge technological pro erials	cesses				
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions X X Material sciences connected with energy convergion and storage							
	3. Research on serious human health problems viral infections: HIV and Hepatitis						





		PROGRAMME
neurodegenerative diseases		
4. Contemporary socio-economic stu	ıdies	
Social security systems and welfare sta	te (in the context of globalization)	
Labour, labour market, and employmen	t 🔲	
Transformation of the educational syste	em 🔲	
Areas of activity (Free keywords)	Climate, ice sheets, Greenland	

PROJECT IDEA(S)	
Short description of project	The Greenland ice core record provides a wealth of climatic and environmental information about the past condition prevailing at high northern latitude as well as the changes in the ice sheet over the last 100,000 years. The project aims to improve and apply an original and new method to date in a most accurate manner the long Greenland paleoclimatic record and to infer the past change in the volume of the ice sheet and their influence on the sea level. Such information is relevant to the understanding of the impact of a partial melting of the Greenland ice sheet in the future.
Description of scientific expertise offered	The LGGE is one of the leading laboratory at the international level for ice core studies and interpreting the paleorecord covering the last million of years. He has also a leading position in the field of the modeling the response of the ice sheet to a climatic change.
Description of technical expertise offered	The LGGE, together with the Artic and Antarctic Research Institute (AARI) in Saint Petersburg, has developed an original and most precise method to measure the amount of air entrapped in the polar ice cores. This property is a powerful lool to improve the chronology of the ice cores and an indicator of the past changes in the surface elevation of Greenland.
Description of requested partner scientific and technical expertise	AARI will provide, together with LGGE, the expertise on air content measurements and the method to interprete it as a dating tool and an indicator of the past changes in ice sheet. LSCE will provide another information for improving the ice chronology based on measurements of the O2/N2 ratio and the isotopic oxygen composition of the air entrapped in the ice The Niels Bohr Institute is the main institution responsible for the NEEM ice core project which provide the Greenland ice core under study. This Institute has the leadership in most of the Greenland ice core recoveries and studies and is very well known for modeling the ice sheet and studying the past climatic record in Greenland
Description of requested partner technical expertise	see section above
Potential partners (name, organisation, address)	 Arctic and Antarctic Research Institute (AARI), Roshydromet, Beringa street, Saint Petersburg, Russia LSCE, CEA, CNRS, UVSQ, Gif- sur-Yvette, France Niels Bohr Institute, Center for ice and climate, University of Copenhagen, Copenhagen, Denmark





Germany

Prof. Dr Horst Hanusch

PARTICIPANT						
Gender	Mr.			Title Pro	of. Dr.	
First name	Horst					
Last name	Hanusch					
Position	Professor 1	Emeritus in Economic	S			
ORGANISATION	DETAILS					
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Employees			C 11 - 5	50	51 - 250	250 +
Organisation type	X Higher E	Education Institution	Resear Institution		stry SME	other
Department	Departmen	nt of Economics and Bu	usiness Admi	nistration Univ	versity of Augsl	ourg
Short description of your company or organization						
TOPICS OF INTE	REST REGA	ARDING THE CALL	IN "COLLA	BORATIVE	S&T Projec	CTS"
Sub-topic of exercis	se					
1. Innovative mater ultrahigh-power lase intelligent materials a quantum optics	r sources 🔲	ing edge technological erials	processes			
climate change in the	physiology of r e artic and sub	natural ecosystems 🔲	storage 🔲			





3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system X
Areas of activity (Free keywords) Institutional development in knowledge-based economies

PROJECT IDEA(S)	
Short description of project	In a Neo-Schumpeterian framework the educational system is a main pillar for the development of a knowledge-based economy, driven by innovations in firms and by regional as well as national characteristics. The project, thus, will concentrate on theoretical considerations and empirical data on the firm as well as the regional level, looking especially on the advanced requirements and the transformational needs concerning the educational system in a knowledge-based economic and social environment.
Description of scientific expertise offered	Research in Neo-Schumpeterian institutional economics and innovation economics based on elements like learning, skills and knowledge, creativity, risk taking, etc.
Description of technical expertise offered	No technical expertise needed for this project
Description of requested partner scientific expertise	Expertise based on research in knowledge-based institutional economics, innovation and development economics
Description of requested partner technical expertise	Requested partners do not need technical expertise

PARTNERS	
Partners' names, organizations and addresses	Prof. Dr. Evgeny Popov Head of the Economical Theory Department, Institute of Economics, UB of RAS Moskovskaya str., 29, Ekaterinburg, Russia Dr. Natalia Maehle Researcher Norwegian School of Economics and Business Administration Stolabakken 41, 5307 Ask, Bergen, Norway





Dr. Pekka Sutela

Head, Institute for Economies in Transition, Bank of Finland, Kluuvikatu 7, P.O. Box 160, 00101 Helsinki, **Finland**

Prof. Dr. Canan Balkir Jean Monnet Chair in European Economic Integration Graduate Department of EU Studies Dokuz Eylül University Cumhuriyet Bulvarı 144 35210 Alsancak, Izmir, **Turkey**





Dr.-Ing. Uwe Reichel

PARTICIPANT			
Gender	☐ Mr	☐ Ms	Title DrIng.
First name	Uwe		
Last name	Reichel		
Position	Scientist,	Project manager	

O RGANISATION	DETAILS							
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Email * uwe.reio	chel@ikts.fra	ınhofer.de	e		Web	www.i	kts.fraunhofer	:.de
Employees	☐ 1-10 ☐ 11 - 50 ☐ 51 - 250 ☐ 250 +			250 +				
Organisation type	Higher I	Higher Education Institution X Research Institution Industry SME other						
Department	Oxide ceran	Oxide ceramic components and systems						
Short description of your company or organization	Fraunhofer is Europe's largest application-oriented research organization. Our research efforts are geared entirely to people's needs: health, security, communication, energy and the environment As a result, the work undertaken by our researchers and developers has a significant impact or people's lives. We are creative. We shape technology. We design products. We improve methods and techniques. We open up new vistas. In short, we forge the future. The Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden and Hermsdorff covers the complete field of advanced ceramics, from basic research to applications. Our services include the development and application of modern advanced ceramic materials, the development of industrial powder metallurgical technologies, and the manufacturing or prototypical components. Structural ceramics, functional ceramics and cermets set up the priorities with emphasis on innovative complex systems which are applied in many industry sectors.							

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes
ultrahigh-power laser sources X
intelligent materials and nanomaterials X
quantum optics
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems
climate change in the artic and subartic regions





Material sciences connected with energy convergion and storage X	
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords) Ceramic materials, Nanostructured ceramics, Transparent- and Op	otoceramics

Dromorros (a)	
PROJECT IDEA(S)	
Short description of project	Development of functional, structural nanostructured ceramics and coatings. The aim of the project is development of methods providing manufacturing the parts from nanostructured functional, structural ceramics and coatings having required shapes, structures and properties. Targeted nanoceramics: substrates for high-frequency electronics, armor ceramics, optical transparent ceramics; seals for pump lines, etc.
Description of scientific expertise offered	 For the project we have a Vision to develop nanostructured ceramic materials and coatings with improved properties. We offer the scientific expertises on the field of Nano-Technologies as follows: Characterize and processing of sub-μm- and nano-Powders Mixing, homogenizing and coating of nano-Powders with organic temporary additives and development of surface modified powders Development of nanostructured ceramics and coating materials for special applications Industrial processing technologies for forming and thermal technology Ceramic materials with improved properties: strength, hardness, reliability, thermal and chemical resistance, functional for electronics and optics
Description of technical expertise offered	The Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden and Hermsdorf, covers the complete field of advanced ceramics, from basic research to applications. Our services include the development and application of modern advanced ceramic materials, the development of industrial powder metallurgical technologies, and the manufacturing of prototypical components. Structural ceramics, functional ceramics and cermets set up the priorities with emphasis on innovative complex systems which are applied in many industry sectors. One of the main emphasis at the Hermsdorf branch of the institute is the development of high-performance oxide ceramics, transparent ceramics and ceramics based on nanopowders and the manufacturing technology for it. We are equipped with the complete ceramic technology for powder processing, moulding, sintering and machining.
Description of requested partner scientific expertise	Experience in the development of ceramic nano-powders and coating materials with special properties; Experience in testing and application of nano and functional materials
Description of requested partner technical expertise	Know-how in nanopowder synthesis, nanoceramics manufacturing and functional coating deposition on fine ceramics; Experience in testing and quality control





	1.	TPU	Nano-Centre	(Prof.	Oleg	Kha	sanov;	khasa	anov@tpu.ru;
Potential partners	<u>http</u>	://portal.tp	u.ru/departments/co	<u>entre/nano/e</u> i	<u>ng</u> ; 30,	Lenin	Ave.,	Tomsk	Polytechnic
(name,	Uni	versity, To	msk, 634050, Russ	sia. Tel./fax -	+7(3822)4	27242).			
organisation,	2. F	Holding J	SC "NEVZ-Soyı	ız" (Mrs.	Anastasi	ya Me	dvedko;	market	ing@nevz.ru;
address)	http://	ru.nevz.ru/	; 220 Krasnyi pros	pect, Novosi	ibirsk, 630	049, Ru	ssia. Tel.	+7(383)2	2106284; Fax
	+7(38	33)2258275)						





Norway

Dr Natalia Maehle

3. Research on serious human health problems

PARTICIPANT					
Gender	Ms	Title Dr.			
First name	Natalia				
Last name	Maehle				
Position	Freelance researcher				
ORGANISATION					
Organisation name		ics and Business Administration			
	lleveien 30				
ZIP * 5045	City * Bergen	Country * Norway			
Phone * +47 559		Fax			
Email * natalia.ı	maehle@nhh.no	Web www.nhh.no			
Employees	1 -10	☐ 11 - 50 ☐ 51 - 250 ☐ 250 +			
Organisation type	☐ Higher Education Institution	Research Industry SME other			
Department	Department of Strategy and Man	nagement			
Short description of your company or organization	f your company institutes SNF and AFF, constitutes the largest concentrated centre for research and study in the				
TOPICS OF INTE	DEST DECADDING THE CALL	L IN "COLLABORATIVE S&T PROJECTS"			
Sub-topic of exercise		7EV COLLABORATIVE S& I I ROJECTS			
ultrahigh-power lase intelligent materials quantum optics 2. Environmental references and the second seco	and nanomaterials				





viral infections: HIV and Hepatitis		
auto-immune diseases 🔲		
neurodegenerative diseases		
4. Contemporary socio-economic stu	dies	
Social security systems and welfare sta	te (in the context of globalization)	
Labour, labour market, and employmen	t 🗍	
Transformation of the educational syste	_	
	_	
Areas of activity (Free keywords)	Knowledge Economy Institutions	
, , , , , , , , , , , , , , , , , , ,		

PROJECT IDEA(S)	
Short description of project	The elaboration of economic institutional models for the purpose of innovative development of firms and regional systems is the aim of the project. The analysis of firms' and regional systems' activities in the Knowledge Economy will constitute the main experimental data of the project. As a result the project will provide the advanced requirements for transformation of the educational system.
Description of scientific expertise offered	This project offers scientific expertise in Knowledge Economy and Institutional Economics Theory.
Description of technical expertise offered	The technical expertise of this project is not needed.
Description of requested partner scientific expertise	The requested partners should have scientific expertise in Knowledge Economy and Institutional Economics Theory.
Description of requested partner technical expertise	The technical expertise of requested partners is not needed.
Potential partners (name, organisation, address)	Prof. Dr. Evgeny Popov Head of the Economical Theory Department, Institute of Economics, UB of RAS, Moskovskaya str., 29, Ekaterinburg, Russia Prof. Dr. Horst Hanusch Vice-President, University of Augsburg, Universitaetsstr. 16, D-86135 Augsburg, Germany Dr. Pekka Sutela Head, Institute for Economies in Transition, Bank of Finland, Kluuvikatu 7, P.O. Box 160 FIN-00101 Helsinki, Finland





Mr Lasse Herbert Pettersson

PARTICIPANT				
Gender	Title Mr.			
First name	Lasse Herbert			
Last name	PETTERSSON			
Position	Director International cooperation/ Leading Scientist			
ORGANISATION	DETAILS			
Organisation name	Nansen Environmental and Remote Sensing Center			
Street *	Thormoehelnsgate 47			
ZIP * 5006	City * Bergen Country * NORWAY			
Phone * + 47 552	205800 Fax +47 55205801			
Email * admin@	nersc.no Web http://www.nersc.no			
Employees	51 - 250			
Organisation type	Higher Education Institution Research Institution Industry SME other			
Department				
Short description of your company or organization	The Nansen Center generate interdisciplinary scientific knowledge in Earth system environmental and climate research, satellite remote sensing, ocean modeling and data assimilation.			
TOPICS OF INTE	REST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"			
Sub-topic of exercis	se e			
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics				
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems ☐ climate change in the artic and subartic regions ☑ Material sciences connected with energy convergion and storage ☐				
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases				





	PROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (<i>Free keywords</i>): Marine research, arctic research, climate and environmental research, satellit modeling and data assimilation, training and education of PhD students	e remote sensing,

PROJECT IDEA(S)	
Short description of project	 Studies and modeling of climate change processes in the Arctic by integrated use of field observations, satellite remote sensing and numerical modeling. Development and validation of sea ice parameters derived from satellite remote sensing, including sea ice extent, sea ice types and sea ice thickness. Implications of and conditions for increased shipping activities in Arctic waters.
Description of scientific expertise offered	Extensive experience in sea ice process and climate studies, remote sensing algorithm development and validation, as well as ocean and sea ice modeling.
Description of technical expertise offered	Algorithms for processing of sea ice parameters. Ocean and sea ice models, including iceberg drift model.
Description of requested partner scientific expertise	Arctic sea ice and climate studies. Sea ice process studies.
Description of requested partner technical expertise	Field observations of ice parameters - historical and new data records.
Potential partners (name, organisation, address)	Nansen International Environmental and Remote Sensing Center, St. Petersburg , Russia, and the network of Russian partners established through this center





Dr Matthias Zielke

PARTICIPANT						
Gender	• Mr	○ Ms	Title	Dr.		
First name	Matthias					
Last name	Zielke					
Position	Research	ner				

ORGANISATION DETAILS							
Organisation name Bioforsk – Norwegian Institute for Agricultural and Environmental Research							
Street *	Street * Fredrik Dahls vei 20						
ZIP * N-1432	City *	Ås	C	ountry * Norway			
Phone * +47 40	60 41 00		Fax +47 77 65	5 51 43			
Email * post@bi	ioforsk.no		Web www.biofo	orsk.no			
Employees	O1-10	O 11-50	O 51-250	● 250+			
Organisation type	☐ Higher Education Institution ☐ Res. Institution ☐ Industry ☐ SME ☐ other						
Department	Arctic Agriculture and	d Land Use Division, N-	9269 Tromsø				
Short description of your company or organization	Bioforsk conducts applied and specifically targeted research linked to multifunctional agriculture and rural development, plant sciences, environmental protection and natural resource management. International collaboration is given high priority. Bioforsk is a national R&D institute under the Norwegian Ministry of Agriculture and Food with 500 employees. Our head office is located in Ås, near Oslo but research divisions are represented in all major regions in Norway.						

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
In ovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials
quantum optics
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems
climate change in the artic and subartic regions
Material sciences connected with energy convergion and storage
2. Decearsh an eariers human health arablema
3. Research on serious human health problems viral infections: HIV and Hepatitis
auto-immune diseases





neurodegenerative diseases	
4. Contemporary socio-economic stu	
Social security systems and welfare sta	e (in the context of globalization) 🔲
Labour, labour market, and employmen	
Transformation of the educational syste	_
Transformation of the cadeational syste	·· 📙
	cology of boreal ecosystems, biodiversity, climate change, plants, ogeochemistry of boreal soils

PROJECT IDEA(S)	
TROJECT IDEA(S)	
Short description of project	 Characterization of the most important plant communities in boreal and mountain ecosystems and study how natural and anthropogenic factors may affect these ecosystems. Studying how abiotic and biotic parameters affect the ecophysiology indicator plants. Finding and studying links between plant communities and biogeochemical processes (e.g. carbon turn over, nitrogen fixation and mycorhiza-plant intercation) and links between plant communities and animals/humans (e.g. wild berries as important resource for birds, bears and humans).
Description of scientific expertise offered	 Phenology as measure for ecosystem change on community, species and specimen level Biodiversity and taxonomy of subarctic and arctic plants Biodiversity and ecophysiology of wild berries Soil microbiology, biogeochemical cycles, plant-microbe interactions Adaptogenes Biodiversity assessment and analysis
Description of technical expertise offered	- Phytotron (climate laboratory/advanced green house) - Analysis of phytoecdysteroids - GIS
Description of requested partner scientific expertise	Several (depending on the implementation and content of the proposed project)
Description of requested partner technical expertise	Several (depending on the implementation and content of the proposed project)
PARTNERS	
Partners' names,	
organizations and addresses	Several (depending on the implementation and content of the proposed project)





Poland

Prof. Henryk Dyja

PARTICIPANT					
Gender	☐ Mr	☐ Ms	Title Prof	:	
First name	Henryk				
Last name	Dyja				
Position	Prof. and	Dean of Faculty			
ORGANISATIO	N DETAILS				
Organisation nam	e Czestoch	owa University of Technology			
Street *	Dabrow	skiego 69			
71D * 42.20	10	C'+ C + 1		C + * D 1 1	

URGANISATION DETAILS						
Organisation name						
Street * Dabrowskiego 69						
ZIP * 42-200	City * Czestochow	ra		Country *	Poland	
Phone * +48 34 783	3250 784, +48 34 3250 684, +48	34 3250	Fax +48 34 3250 714			
Email * dyja@w	rip.pcz.pl		Web htt	p://www.wip.pcz.j	<u>pl/</u>	
Employees	1 -10	11 -	50	5 1 - 250	250 +	
Organisation type	Higher Education Institution	Resear		lustry SME	other	
Department	Faculty of Materials Processing T	echnology a	nd Applied F	Physics		
Short description of your company or organization	Faculty of Materials Processing Technology and Applied Physics The faculty is a part of Czestochowa University of Technology and it is involved in research and development activities which are meant to make the economy of the country more competitive and innovative as well as to establish wide cooperation strategy with many leading research centres and engineering institutions in Europe, Asia and America. In all aspects of its activity, the Faculty meets the EU requirements and standards. The results of the theoretical studies find their practical applications in many branches of industry such as steelmaking plants, foundries, automobile factories or power plants. The Faculty has developed strategic partnerships with many regional businesses, for example Arcelor Mittal Steel, CMC Zawiercie S.A., Buczek Steel Mill, ISD Częstochowa Steel Mill, Małapanew S.A. Steel Mill in Ozimek, CF Gomma Częstochowa, Pronovum in Katowice. The results of cooperation with businesses are published in the world-recognised magazines and academic journals and they are also presented during many national and international conferences that the Faculty convenes regularly.					

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"			
Sub-topic of exercise			





1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics quantum optics
2. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
Areas of activity (<i>Free keywords</i>) nanostructure, nanomaterials, grain refinement, plastic deformation, numerical and physical modelling, ultra fine-grained steels, rolling, extrusion, forging, ECAP, ARB, FEM

PROJECT IDEA(S)	
Short description of project	The aim of the project is to investigate deformation and thermal-speed parameters of hot and cold plastic deformation providing nano-structured state of steel with grain size less than 300 nm and determine the possible using of these parameters at rolling the equipment of industrial plants. The test subjects are low-carbon micro alloyed steels, aluminium, magnesium and zirconium alloys, strength and mechanical properties of metals, metal structure. Task of the project: determine of hot and cold plastic deformation parameters providing nano-structured state of metals; production of nano-structured using Max-strain module of the test table Gleeble 3800 by Equal Channel Angular Pressing (ECAP), Accumulative Roll Bonding (ARB), hot and cold rolling, extrusion and forging; determination of mechanical properties of deformed nano-crystalline materials, computer modelling of investigated processes.
Description of scientific expertise offered	From the many years experience of our research team point of view both numerical modelling and range of investigated research are the chances for obtaining proper and interesting results. The confirmation of achieved purposes of earlier research, projects and grants are numerous publication achievement and many industry applications in range of investigated metal forming processes.
Description of technical expertise offered	New and modern scietific equipement: rolling mill, physical simulator Gleblee3800, dilatometer - plastometer Bahr 805 A/D, many testing machines (Zwick, Instron), hydraulic presses, microscopes and computer software based on FEM.
Description of requested partner scientific expertise	Experience in research of ECAP and ARB processes and their numerical modelling. Three high-skew rolling process experience. Cold and hot rolling, extrusion and forging processes. Cold and hot metal forming of low-carbon micro alloyed steels, aluminium, magnesium and zirconium alloys.
Description of requested partner technical expertise	Three high-skew rolling mill, equipment for cold and hot rolling, extrusion and forging processes.
	Prof. DrIng. Bernd-Arno Behrens , Institute of Metal Forming and Metal-Forming Machines,





Potential partners	Leibniz Universität Hannover, An der Universität 2, 30823 Garbsen, Germany; Prof. DrIng.
(name,	Rudolf Kawalla, Institute of Metal Forming, TU Bergakademie Freiberg, Bernhard-von-Cotta-
organisation,	Straße 4, Germany; Prof. Sergey Ionov, Prof. Alexandr Zinoviev, National University of Science
address)	and Technology "MISIS" (MISIS), 119049, Moscow, B-49, Leninsky prospect, 4, Russia; Prof.
·	Andrey I. Rudskoy, Prof. Alexander Zolotov, St. Petersburg State Polytechnical University, 29
	Polytechnicheskaya st. St. Petersburg, 195251 Russia.





Dr Zbigniew Olejniczak

PARTICIPANT							
Gender	☑ Mr	C Ms		Title	doctor		
First name	Zbi	gniew		•			
Last name	Olej	niczak					
Position	mai	nager of shoe departme	ent				
ORGANISATIO	N DETAILS						
Organisation nam	e Institute o	f Leather Industry					
Street *	Zgierska	73					
ZIP * 48 42	657 62 75	City * Łódź			C	Country *	Poland
Phone * 48 422	536108			Fax	48 426570	6275	
Email * dyr-ip	s@ips.lodz.pl			Web	www.ips.l	lodz.pl	_
Employees	1-10		11 - 9	50	51 -	250	250 +
Organisation type	Higher	Education Institution	x Research		Industry	SME	other
Department	footw	rear					
Short description of your company or organization	polymeric s		nstitute is to				ring cooperations with ologies into SME and
TOPICS OF INT	EREST REGA	RDING THE CALL I	IN "COLLA	BORAT	IVE S&T	PROJEC	TS"
Sub-topic of exerc	cise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials x quantum optics							
2. Research on s viral infections: HI' auto-immune dise neurodegenerative	V and Hepatitis						





Areas of activity (Free keywords) leather, footwear, testing, micro climate,

PROJECT IDEA(S)	
Short description of project	The project will be concerning the possibility of using intelligent materials in the footwear. The modern textile technologies makes possible to obtain materials for different parts of shoe upper, with possibility to react for changes of environment conditions. Till now, the best material is natural leather, buy it seems to be possible to improve also several parameters of leather. It will be obtained by preparing "intelligent leather". The project concerning new, intelligent materials as footwear parts, which changes the properties of footwear. Specially it will be concerning with the footwear used during long time, with no intervals. That problem is specially dedicated for footwear used in heavy conditions.
Description of scientific expertise offered	Several research project about textile materials and footwear micro climate preparing for polish SME and scientific organization.
Description of technical expertise offered	All standards for testing materials, shoe components and ready made footwear, specially safety and work. Artificial foot, newest generation for testing micro climate.
Description of requested partner scientific expertise	Expertise in the textile and leather(footwear)sector. Experience in testing the relations between human s body and environment conditions. Experience in testing materials.
Description of requested partner technical expertise	Testing and modification of footwear and footwear elements. Equipment for testing the influence of footwear and environment condition for human s body
Potential partners (name, organisation, address)	Kyiv Pollytechnic Institute, Bauman Moscow State Technical Universitety





Prof. Jacek Ulański

neurodegenerative diseases \boldsymbol{X}

PARTICIPANT						
	☐ Mr	Mr Title Prof.				
First name	Jacek					
Last name	Ulański					
Position	Head of I	Department of Molecular	Physics; C	Coordinate	or of the ECBNT	
		•				
ORGANISATION	DETAILS					
Organisation name	European	Centre of Bio- and Nano	technology	y (ECBNT	() at Technical Univ	ersity of Lodz
Street *	Żeromskieg	go 116				
ZIP * 90-924	1	City * Łódź			Country *	Poland
Phone * +48 42	631 32 16			Fax -	+48 42 631 32 18	
Email * cbnt@p	o.lodz.pl			Web 1	nttp://www.cbnt.j	p.lodz.pl/
Employees	1-10		11 - 5	50	51 - 250	<u>X 250+</u>
Organisation type	X Higher E		Researd		ndustry SME	other
Department	Departmen	t of Molecular Physics an	d Europea	n Centre o	of Bio- and Nanotec	hnology
Short description of your company or organization	ECBNT is an interfaculty research consortium at Technical University of Lodz unifying research groups from 6 faculties of Technical University of Lodz.					
TOPICS OF INTE	EREST REGA	ARDING THE CALL IN	"COLLA	BORATI	VE S&T PROJEC	TS"
Sub-topic of exerci	se					
1. Innovative mate ultrahigh-power lase intelligent materials quantum optics	er sources 🔲 and nanomate	ing edge technological pro	cesses			
2. Research on serviral infections: HIV auto-immune disease	and Hepatitis					





Areas of activity (*Free keywords*) Biotechnology, Nanochemistry, Nanomaterials, Nanostructured Polymers and nanocomposites, Biomaterials, Genomics & Proteomics, Biorafinery Processes, Environmental Protection, Nanoelectronics, Organic Electronics, Biocatalysis and Biotransformation,

PROJECT IDEA(S)				
Short description of project	The ECBNT Consortium at Technical University of Lodz has expertise in three platforms: ENERGY, HEALTH and ENVIROMENTAL PROTECTION.			
Description of scientific expertise offered	Nanostructured polymers and nanocomposites Nanostructured Biomaterials and Biochemicals Inorganic and Hybrid Nanomaterials Molecular Dynamics and Modelling			
Description of technical expertise offered	System Biotechnology Nanotechnology for Electronics and Opto-electronics Biosensors Food Authentication Nanotechnology in Textile Industry			
Description of requested partner scientific expertise	Expertise in biotechnology and in nanotechnology			
Description of requested partner technical expertise	Application of biomaterials in medicine; Applied Biocatalysis and Biorefinery Processes; Technology of Inorganic and Organic Electronics			
Potential partners (name, organisation, address)	Institutes of RAS in Moscow (Prof. Alexei R Khokhlov) and in Chernogolovka (Prof. E. Yagubskii),			





Mr Bogdan Wendler

Participant					
Gender	☐ Mr		Title	Associate Professor	
First name	Bogdan				
Last name	Wendler				
Position	Head Mas	ter of the Coatings' Engineering Dept			

ORGANISATION DETAILS						
Organisation name Technical University of Lodz						
Street * Stefanowskiego 1/15						
ZIP * 90-924	City * Lodz		Country * Poland			
Phone * 501 29 29	22	Fax +48 42	Fax +48 42 636 67 90			
Email * bogdan.we	endler@p.lodz.pl	Web www.l	Web www.hardcoating.eu			
Employees			250 +			
Organisation type	X Higher Education Institution					
Department	Faculty of Mechanical Engineering					
Short description of your company or organization	The Coatings' Engineering Dept. makes use of its high technology and unique high vacuum equipment for the research and implementation activity related to the synthesis and deposition of modern complex coatings systems onto the surface of any solid (metalic, ceramic or polymer) substrate. These include among others: ↑ Elaboration of modern superhard, low friction, wear resistant, nanocomposite coatings on sintered carbides, ferrous and non-ferrous alloys for numerous tools and machine elements; ↑ Elaboration of modern super-low friction, wear and corrosion resistant nanocomposite coatings' systems MeC/C(:H) and MoS₂(Me1, Me2) coatings on diffusion strengthened titanium alloys for applications to multiple machine elements (where Me denotes a transition metal).					

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"

Sub-topic of exercise

- 1. Innovative materials and cutting edge technological processes
- intelligent materials and nanomaterials X
- 2. Research on serious human health problems

Areas of activity (Free keywords) CVD & PVD techniques, high density gas pulse plasma magnetron sputtering, nanocomposite coatings, functional coatings, hard & super-hard coatings, coatings with low and super-low friction, coatings resistant to adhesive and abrasive wear, coatings resistant to high-temperature corrosion, coatings resistant to electrochemical corrosion; all these types of coatings on sinters, ferrous alloys and non-ferrous alloys (e.g., onto Ti-





alloys)

PROJECT IDE	A(S)
Short description of project	Deposition of innovative superhard nanocomposite coatings by means of a new high density gas pulse plasma method based on application submitted to the Polish Patent Office in 2010
Description of scientific expertise offered	Coatings' Engineering Division has about thirty years of experience in deposition of functional coatings by CVD and PVD methods. During the last years it developed a series of modern nanocomposite hard and superhard wear and corrosion resistant, as well as super-low friction coatings on tools and machine parts from sinter carbides, ferrous and non-ferrous alloys as for example anti-wear, low friction, superhard, high temperature and electrochemical corrosion resistant coatings.
Description of technical expertise offered	A team of Coatings' Engineering Division has a direct access to unique high vacuum equipment, which is permanently developed. The workshop is equipped with one industrial hybrid PVD unit with Filtered Cathodic Arc Deposition and Reactive Magnetron Sputtering methods and two semi-industrial units. Each one of the two latter consists of four independent magnetrons with 12 kW power current sources for each magnetron. Also, there is one hybrid laboratory unit for magnetron sputtering/Radio Frequency PA CVD deposition of coatings onto micro- and nano-powders. Besides these, the Materials Science and Engineering Institute is well equipped with a number of modern tools for materials investigations as, e.g., nanohardness tester (MTS, USA); AFM (Vecco, USA) and SEM (Hitachi, Japan) microscopes with EDS (NORAN Instr., USA); XRD (Siemens, Germany) with novel attachements for texture and stress measurements; THT high-temperature pin-on-disk tribometer (CSM, Switzerland).
Description of requested partner scientific expertise	A partner is searched interested in developing of modern super-hard coatings deposition on cutting tools and machine parts from sinters and tool steels for high speed machining of hard-to-machine materials (such as titanium alloys and cobalt or nickel superalloys). It would be appreciable to know mechanisms of friction and wear of machining tools. On the other hand, requested partner could have interest in high density gas pulse plasma diagnostics.
Description of requested partner technical expertise	Requested partner should have access to investigations in industrial or semi-industrial conditions of machining hard-to-machine materials (such as, titanium alloys, cobalt or nickel superalloys). On the other hand, requested partner should have access to plasma diagnostics equipment.
Potential partners (name, organisation, address)	 Prof. Vladimir G. Konakov, Saint Petersburg State University, Dept. Physical Chemistry, Universitetskiy Pr. 26, Peterhof, 198504 St. Petersburg, Russia Prof. Alla V. Nojkina, MGGU Moscow State University of Mining, Chair Materials Machining, Leninskiy Pr. 6, 119049 Moscow, Russia Prof. Petr Louda, Liberec Technical University, Mechanical Engineering Faculty, Dept. of Materials Science, 46117 Liberec 1, Halkova St. 6, Czech Rep.





Russia

Dr Anatoly Astakhov

PARTICIPANT	1	VIr _	_					
Gender	√ • '	*'' E	☑ Ms		Title	Dr		
First name	Anatoly	•			1			
Last name	Astakhov							
Position	deputy di	rector						
ORGANISATION								
Organisation name		acific Oc	eanological Insti	tute (PO	(I)			
Street * Baltiyskay	ra, 43	T					T	
ZIP * 690041		City *	Vladivostok				Country *	Russia
Phone * 7-4232-3							310694	
Email * astakho	v@poi.dvo.ru				Web ht	<u>tp://wv</u>	ww.poi.dvo.ru	T
Employees	1 -10			11 - 5	50	5	1 - 250	√
Organisation type	Higher Education Institution Higher Education Higher			other				
Department	Marine geo	logy and	geophisycs					
Short description of your company or organization The POI is the research institution of the Russian Academy of Sciences. Main field of the studies are: - comprehensive hydrophysical, hydrochemical and hydrobiological studies of water masses in seas and oceans, their physical fields (acoustic, optical, electromagnetic, temperature), some parameters (sea wave, ocean currents, vortices, internal waves, ice cover, etc.) energy-mass exchange and the interaction of the ocean and atmosphere, marine ecosystems state; - studies of geology, geophysics and geochemistry of the Pacific and Arctic Oceans and its mineral resources; paleooceanology; - development of new methods and creation of technical means to study the ocean and atmosphere, development and application of the remote control methods, creation and analysis of the oceanography data bases.								
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS" Sub-topic of exercise: 2. Environmental research and cl matic change: climate change in the arctic and subartic regions								
1. Innovative materials ultrahigh-power las intelligent materials quantum optics	er sources 🔲		echnological pro	cesses				





2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions + Material sciences connected with energy convergion and storage	
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords) marine sedimentation, geochemistry, micropaleontology paleoceanology, ice sheet, recent geological processes	,

PROJECT IDEA(S)	
Short description of project	We plan to study the East sector of Russian Arctic to reveal the environmental changes at the past which can throw light on the fast enhanced sea ice-cover degradation at this region during last decades. Such specific characteristics of the surface and dated core sediments (glacial-interglacial cycles) from the Chukchi and East-Siberian Seas and its borderland will be studied as geochemical and mineralogical content as well as microfossils (diatoms, foraminifera, and pollen). The Late Holocene sections and sediments accumulated during Historical time will be studied in detail. The role of the main factors (climatic, geological, paleooceanological) leading to environmental changes at the past will be determined as well as probable conditions of the rapid ice-cover degradation at present will be established. To reconstruct high resolution changes of surface waters, productivity, sedimentation and climate for the Late Quaternary and especially during abrupt climate changes such as glacial terminations, Younger Dryas events, and the Holocene. The sea ice cover is a more sensitive indicator of the regional surface water conditions, so detailed documentation of its changes and ways of migrations in the past are also important. Study the development and interaction of basins of the Arctic and Pacific oceans through the Bering Strait including hydrology, sea-ice and sedimentation in relation to global changes of climate and sea level. There are sedimentology including study of ice rafted debris, clay and clastic mineralogy, eolian material, magnetic susceptibility), oxygen and carbon isotopic composition of planktonic and benthic foraminifera and micropaleontological methods (diatoms, silicoflagellates, radiolaria, foraminifera etc.), geochemical methods (carbonate, organic carbon and opal content in sediments) and so on.
Description of scientific expertise offered	The institute employees are experts in sedimentology, micropaleontology, paleooceanology. We have the wide experience in conducting organization of the marine expeditions in the Arctic and the North Pacific in collaboration with Swedish Polar Research Secretariat (ISSS-08), IFM-GEOMAR (KOMEX, KALMAR), and AWI (Alfred-Wegener-Institute) (INOPEX).
Description of technical expertise offered	We have the collection of the surface and core sediment samples from the Chukchi, East-Siberian and Laptev Seas as well as from the certain Arctic deep-sea regions. The samples are partly studied (grain size analysis, geochemistry, biogenic element content, diatom analysis). The institute has vessels which can work at the Arctic up to 75° North, modern geophysical and





	oceanological equipment, equipment for core and surface-sediment sampling (gravity cores, box-corer, grabs) as well as for water and surface-sediments chemical analysis.
Description of requested partner scientific expertise	We plan to collaborate with organization experienced in the Arctic field of sedimentology, paleooceanology, Quaternary stratigraphy, radiochronology for carrying out complex paleoenvironmental analysis according to oceanological, sedimentological and geological conditions.
Description of requested partner technical expertise	We need an opportunity for radioisotope dating (AMS ¹⁴ C, ²¹⁰ Pb, ¹³⁷ Cs) for creation of high-resolution age models, precise dating of regional paleoenvironment changes and there correlation with the global events, isotope analysis of C, N, O, Si from biogenic matter and possibility to obtain additional sediment cores from the deep-sea East-Siberian and Chukchi Sea borderlands.
Potential partners (name, organisation, address)	 Martin Jakobsson and Jan Backman - Department of Geology and Geochemistry, Stockholm University, 106 91 Stockholm, Sweden (martin.jakobsson@geo.su.se) Leif Anderson - Department of Chemistry, Göteborg University, Göteborg, Sweden (Phone: +46(0)31-772 2774, E-mail: leifand@) N. Nørgaard Pedersen - Geological Survey of Denmark and Greenland, DK-1350 Copenhagen, Denmark Henk Brinkhuis – Prof., Laboratory of Palaeobotany & Palynology, Department of Biology, Utrecht University, 3584 DC Utrecht, The Netherlands (Phone: +31 30 253 7691 Email: h.brinkhuis@uu.nl) Michael Kaminski - Department of Earth Sciences, University College London, London WC1E 6BT, UK (m.kaminski@ucl.ac.uk) Ruediger Stein - Alfred Wegener Institute Foundation for Polar and Marine Research, D-27515 Bremerhaven, Germany (rstein@awi-bremerhaven.de) Dirk Nürnberg and Martin Frank - Leibniz-Institute of Marine Sciences, IFM-GEOMAR, 24148 Kiel, Germany (dnuernberg@ifm-geomar.de) Emmanuelle Pucéat - Université de Bourgogne 21000 Dijon France Tel: 33 (0)3 80 39 63 81 Email: emmanuelle.puceat@u-bourgogne.fr





Dr Alexander Chentsov

PARTICIPANT						
Candar	X Mr	□ Ms		Title	Dr., PhD.	
First name	Alexande	r		1		
Last name	Chentsov					
Position	Research	er				
ORGANISATION						27.1
Organisation name		insky Institute for Problem	ms in Mec	hanics of	the Russian Acader	ny of Sciences
	ernadskogo p	1				ъ :
ZIP * 119520		City * Moscow			Country *	Russia
Phone * +74954					+74954343527	
Email * goldst@	jipmnet.ru			Web	www.ipmnet.ru	T
Employees	1-10		11 - 5	50	51 - 250	X 250 +
Organisation type	Higher	Fallcation institution =	Researd		Industry SME	other
Department	Laboratory	on Strength and Fracture	of Materia	als and St	tructures	
Short description of your company or organization	Leading institute in mechanics in the Russian Academy of Sciences					
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"						
Sub-topic of exercise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics intelligent materials and nanomaterials represented in the search and climate change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions material sciences connected with energy convergion and storage materials.						
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases						





	TROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (<i>Free keywords</i>) Discrete-continuum modeling, deformation, loss of stability, stren fracture, nanostructured particles, nanotubes, nanowires, graphene layers	igth and

PROJECT IDEA(S)	
Short description of project	Discrete-continuum modeling of mechanical behavior (deformation, loss of stability, strength and fracture) of nanostructured materials, composites filled with nanoscale and microscale nanostructured particles, elements of components designed from nanostructured objects (like nanotubes, nanowires, combinations of nanotubes and graphene layers)
Description of scientific expertise offered	Mechanics of nano- and microstructural materials and components, fracture mechanics, numerical and analytical modeling in solid mechanics
Description of technical expertise offered	Development of schemes for testing deformation and fracture characteristics of nanostructured materials, mechanical testing of thin films, fibers, etc.
Description of requested partner scientific expertise	Physical chemistry of materials. Fundamental basis for material design
Description of requested partner technical expertise	Experience and facilities for preparing samples of nanostructured materials and/or composites with nanoparticles filling
Potential partners (name, organisation, address)	No special preference





Mrs Elena Cherenkova

PARTICIPANT						
Gender	🔲 Mr	☑ Ms		Title	PhD	
First name	Elena			•		
Last name	Cherenko	va				
Position	Research	er				
ORGANISATION	DETAILS					
Organisation name	Institute of	Geography Russian Acad	emy of Sc	iences		
Street *						
ZIP *		City * Moscow			Country *	Russia
Phone *				Fax -	+7 495 9590033	
Email *				Web	http://igras.ru/	
Employees	1-10		11 - 5	50	51 - 250	250 +
Organisation type	Higher	Education Institution	- Research		Industry SME	other
Department	Laboratory	of Climatology				
Short description of your company or organization	IG RAS					
TOPICS OF INTE	REST REGA	ARDING THE CALL IN	"COLLA	BORAT	IVE S&T PROJEC	CTS"
Sub-topic of exerci						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics						
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems + climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases						





Social security systems and welfare sta	4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment				
Areas of activity (Free keywords)	climate change, drought, desertification				

PROJECT IDEA(S)	
Short description of project	Climate change, drought risk and desertification: impacts to society and the environment
Description of scientific expertise offered	
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	





Mr Maxim Chirkov

PARTICIPANT				
Gender	γ □ Mr	☐ Ms		Title
First name	Maxim			
Last name	Chirkov			
Position	senior lec	eturer		
0				
ORGANISATION		to I Iniconsite		
Organisation name Street * Lenin,		te University		
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	2667584	City · Baillaui		Fax +7 3852 667626
Email * rector@				Web www.asu.ru
Ellian lectore	asu.iu			web www.asu.ru
Employees	1-10		11 - 5	50 Σ 51 - 250 Σ 250 + γ
Organisation type	Higher		Researce Institution	ch
Department	Internation	al institute of economy, m	nanagemen	at and information systems
Short description of your company or organization	of your company out under 108 licensed programs of the higher vocational training which include programs of			
TOPICS OF INTE	EREST REGA	ARDING THE CALL IN	"COLLA	BORATIVE S&T PROJECTS"
Sub-topic of exerci	ise			
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics				
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage				
3. Research on serious human health problems viral infections: HIV and Hepatitis				





		FROGRAMME		
auto-immune diseases 🔲				
neurodegenerative diseases				
4. Contemporary socio-economic stu	idies			
Social security systems and welfare state (in the context of globalization)				
Labour, labour market, and employment				
Transformation of the educational syste	_			
Transformation of the caacational syste	···· L			
Areas of activity (Free keywords)	Labor market, Regional economy, Social-economic development	, Tax policy		

PROJECT IDEA(S)	
Short description of project	The project is directed on the analysis and working out of alternative forms of maintenance of employment of the population in a transformed society
Description of scientific expertise offered	The analysis of models of behavior of individuals on a local labor market
Description of technical expertise offered	
Description of requested partner scientific expertise	The offer of forms of state regulation of supply and demand new to Russia on a labor market Search of resources of nonstate sector for the decision of problems of employment of the population
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	





Mr Valery Davydov

PARTICIPANT						
Gender	X Mr	☐ Ms	Title	PhD, Physical Chemistry		
First name	Valery					
Last name	Davydov					
Position	Senior Re	search Scientist				

ORGANISATION DETAILS							
Organisation name: Institute for High Pressure Physics, Russian Academy of Sciences,							
142190, Troitsk, M	142190, Troitsk, Moscow Region, Russian Federation						
Street * Kaluzhsko	oe shosse 14						
ZIP * 142190		City * Troitsk				Country *	Russia
Phone * 7 496 75	510738			Fax 7	496 751	10012	
Email * vdavydo	v@hppi.troit	sk.ru		Web v	www.hp	pi.troitsk.ru	
Employees	X 1-10		□ 11 - 50 □ 51 - 250			250	250 +
Organisation type	Higher Education Institution Research Institution Industry SME other						
Department	Laboratory of Advanced Materials						
Short description of your company or organization	L.F. Vereshchagin Institute for High Pressure Physics is the leading institution of Russian Academy of Sciences in the field of high-pressure investigation. The original equipment and technologies, developed in the Institute, formed the basis of diamond industry in Russia. At present, the scientific mission of the Institute consists in investigations of substance properties in conditions of strong static compression that can be divided in two major parts: (1) fundamental investigations of the structure, electronic properties, stability and phase transformations under pressure in various substances, (2) high pressure synthesis of new materials and investigation of their properties. The part (2) covers the synthesis of new crystalline and amorphous nanosized forms of carbon.						

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"				
Sub-topic of exercise				
Innovative materials and cutting edge technological processes				
ultrahigh-power laser sources				
intelligent materials and nanomaterials 🗵				
quantum optics				
2. Environmental research and cl matic change				
biodiversity and ecophysiology of natural ecosystems				
climate change in the artic and subartic regions				
Material sciences connected with energy convergion and storage				





3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (Free keywords) Physics and Chemistry of high pressures, synthesis of new carbon and heterocarbon materials, Physics and Chemistry of nanosized forms of carbon (fullerenes, nanotubes, nanodiamonds, onions) and materials on their basis.

PROJECT IDEA(S)	
Short description of project	The proposed research is motivated by the current interest in controlled release of drugs from nanostructured functional materials, especially magnetic nanoparticles on base of iron (INPs). Biomedical applications require core-shell magnetic NPs containing a magnetic core, encapsulated in inorganic coating. Our preliminary studies were shown that high pressure –high temperature (HPHT) decomposition of ferrocene leads to formation of carbon-encapsulated iron carbide of very homogeneous dimensions of about 15 nm able to be used in medicine and biology. The present project will focus: 1) on synthesis of carbon-encapsulated iron carbide nanoparticles (superparamagnetic) by high pressure –high temperature decomposition of ferrocene 2) on covalent surface functionalization of INPs by aminoacids (glycine), sacharides (amikacin), and chemotherapeutical agents (doxorubicin) 3) investigation of bio-functionalized INPs by microscopy imaging of living cell morphology and by studies of effects of INPs on biochemical dynamic processes in living cells involving intracellular intake, binding, transport and controlled release of NPs in relation to targeted drug delivery applications.
Description of scientific expertise offered	High-pressure high-temperature synthesis of nanoparticles (NP) of carbon-encapsulated iron carbide with determinate properties. Characterization of synthesized materials by XRD, scanning electron microscopy and Raman spectroscopy. Optimization of method of NP synthesis.
Description of technical expertise offered	Currently, our laboratory possesses a unique set of high-pressure devices necessary for the proposed work. Our Lab has (i) a low-gradient high-pressure apparatus «Maksim» for synthesis of large volume samples (up to 25000 mm³) under pressures up to 2.5 GPa and temperatures up to 1500° C, (ii) a high-pressure apparatus «Chechevitsa» capable of handling sample volumes up to 8000 mm³ and operating at pressures up to 5.0 GPa and temperatures up to 1700 °C, (iii) a set of "Toroid"-type apparatus with reaction zone volumes ranging from 20 to 15000 mm³ for materials syntheses at pressures up to 13 GPa and temperatures up to 2000 °C. The IHPP also has X-ray powder diffractometer, scanning electron microscope /JEOL JSM 6390LV/ and Raman spectrometer /TriVista spectrometer (Princeton Instruments)/.
Description of requested partner scientific expertise	Characterization of synthesized materials by TEM and HREM methods. Surface functionalization of INPs with bio-organic molecules in order to create new, tunable materials (drugs) with interesting biological properties. Study of solubility, separation and sorting by size of functionalized NPs. In-vitro studies of cell culture endocytosis with f-NPs by confocal and TEM microscopy.





Description of requested partner technical expertise	Transmission Electron Microscopy (TEM). Organic synthesis , nanoparticle surface functionalization, characterization of physico-chemical and biological properties of f -NPs
Potential partners (name, organisation, address)	1. Prof. V. Agafonov, L.E.M.A., UMR CNRS-CEA 6157 - LRC CEA M01, Université F. Rabelais, av. Monge 31, Tours, 37200, France; tel. +33 247367170, email: agafonov@univ-tours.fr
	2. Dr. Anke Krüger, Otto-Diels-Institut für Organische Chemie, Christian-Albrechts-Universität Kiel, Otto-Hahn-Platz 3, 24098 Kiel, Germany, tel.: +49-(0)431-880-1179, email: akrueger@oc.uni-kiel.de





Prof. Dr Efim Frisman

viral infections: HIV and Hepatitis

PARTICIPANT						
Gender	x Mr	☐ Ms		Title	Prof., Dr.	
First name	Efim		•			
Last name	Frisman					
Position	Director					
ORGANISATION						
Organisation name Sciences	Institute for	Complex Analysis of Reg	gional Proble	ms Far	Eastern Branch Ru	ssian Academy of
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ZIP * 679016		City * Birobidzhan			Country *R	ussian Federation
Phone * +7 426	2220405		F	ax +	7 4262261362	
Email * <u>frisman</u>	n@mail.ru		V	Veb <u>ht</u>	tp://icarp.ru/	
Employees	1-10		11 - 50		x 51 - 250	2 50 +
Organisation type	Higher		x Research Institution		ndustry SME	other
Department						
Short description of your company or organization	of your company development for natural and nature-economic regional systems; investigating the character o					
TOPICS OF INTI	EREST REGA	ARDING THE CALL IN	"COLLABO	RATI	VE S&T PROJEC	CTS"
Sub-topic of exerc	ise					
ultrahigh-power las intelligent materials quantum optics 2. Environmental biodiversity and ecclimate change in t	er sources and nanomate research and ophysiology of the artic and sul	erials				





	1 ROGIO MINIE
auto-immune diseases	
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	Modern state and scenario for development of natural ecosystems in regions with mixed floristic and faunistic zones in conditions of climate change. Comparison of processies in different regions and optimisation of environmental management in case of negative effect.
Description of scientific expertise offered	Investigation of a role of intraspecific and interspecific competition in forming and developed stratified forest cenosis stable in time with the help of the stand dynamics individually-oriented model. Analysis of game animal species natural habitat and their seasonal arrangement for certain regional ecosystems. Evaluation of dynamics in fodder reserves effecting a reproduction, survival and seasonal migration for game animal species in changing climatic conditions. Analysis of the present-day composition of small mammals in the region with use of genetic characteristics as a part of taxonomic investigation. Assessment of formation and development of dynamic regimes in the dynamics models for a limited population with age and sex structure.
Description of technical expertise offered	Development of base dynamic model for study of interspecific interactions in the wood stratified coenosis, computational experiments with a set of basic forest-forming species of the Middle Amur Region in Russia (humid), Germany (humid and semi-arid) and Izrael (arid) regions with different and changing climatic conditions. Elaboration of dynamic models for a limited population with age and sex structure. Analysis of synchronization mechanisms in fluctuation of biological population systems connected with migrations. Assessment of game influence on the populations' development and its optimization for environmental management. Estimation of mechanisms for spatial synchronization on the example of models for spatial-temporal dynamics of heterogeneous metapopulation.
Description of requested partner scientific expertise	Estimation of biodiversity and ecophysiology of natural ecosystems in regions with mixed floristic and faunistic zones in Germany and Izrael in conditions of climate change. Comparison of processies in different regions and optimisation of environmental management in case of negative effect.
Description of requested partner technical expertise	Elaboration of dynamic models for main species in regions with mixed floristic and faunistic zones in changed climate, their verification and evaluation.
Potential partners (name, organisation, address)	Prof. Pedro Berliner, Director, the Jacob Blaustein Institutes for Desert Research (BIDR), Sede Boqer Campus 84990, Israel Tel: 972-8-6596700, Fax: 972-8-6596703 email: dirbidr@bgu.ac.il, http://www.bgu.ac.il/BIDR Prof. Dr. Ralf Meissner, Department Bodenphysik Lysimeter Station Falkenberg, Helmholtz Centre for Environmental Research – UFZ, Dorfstrasse 55, 39615 Falkenberg, Germany Tel: +49 3918109771, Fax: +49 341235459771 email: ralf.meissner@ufz.de, http://www.ufz.de





Prof. Dr Vitaly Gorokhov

☑ Mr	☐ Ms	Title	Prof., Dr.	
Vitaly				
Gorokho	OV			
senior s	cientist, chief of the chear			
ORGANISATION DETAILS				
	Vitaly Gorokho senior s	Vitaly Gorokhov senior scientist, chief of the chear	Vitaly Gorokhov senior scientist, chief of the chear	

ORGANISATION	DETAILS						
Organisation name							
Street *	reet * Volkhonka 14						
ZIP * 11999)1	City * Moscow				Country *	Russia
Phone * 8916883	34816			Fax	+74956	5099350	
Email * vitaly.go	orokhov@ma	nil.ru		Web			
Employees	1 -10		11 - !	50	5 2	1 - 250	250 +
Organisation type	xHigher Education Institution X Research Institution Industry Ind						
Department	Interdisciplinary Problems of the Scientific and Technological Development of the IPhRAS; chear for philosophy of science and technology of the GAUGN						
Short description of your company or organization	for philosophy of science and technology of the GAUGN The Institute of Philosophy of the Russian Academy of Sciences (IPhRAS) is the principal institute in Russia for academic research in this field. Academic study of the highest quality is pursued here, covering all the main thematic areas and current problems of contemporary philosophy. The integration of academic work and education is successfully realized: faculties of philosophy and politics have been created within the Institute, as well as an Oriental department within the Faculty of Philosophy in the State University for the Humanities (GAUGN).						

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise





	PROGRAMME
Innovative materials and cutting edge technological processes	
ultrahigh-power laser sources	
intelligent materials and nanomaterials x	
quantum optics	
2. Environmental research and cl	
matic change	
biodiversity and ecophysiology of natural ecosystems	
climate change in the artic and subartic regions	
Material sciences connected with energy convergion and storage	
A Barrant and the state of the state of	
3. Research on serious human health problems	
viral infections: HIV and Hepatitis	
auto-immune diseases	
neurodegenerative diseases	
4 Contemporary accio accumula studios	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system x	
Areas of activity (Free keywords) technology assessment, nanotechnoscience, nanoethics, knowl	edge society,
nanotechnological revolution	

PROJECT IDEA(S) The goal of the project is the exchange of experience and coordination of scientific research in the sphere of social and humanitarian problems of nanotechnological modernization and creation of conditions for experts' preparation on the basis of optimization of research activity. The first task of this project to optimize of international research activity in the sphere of social and humanitarian problems of nanotechnological modernization and to create favourable conditions for worlds level experts preparation in the sphere of social and humanitarian problems of nanotechnological modernization on the basis of optimization of the international research activity. For this goal we need to investigate the paradigmatic change in the sphere of science production especially in the nanotechnoscience, to reveal development directions of research knowledge around nanotechnological modernization, and to prepare the analytical reviews of the Short description of target issus. Series of articles on theoretical and methodological substantiations of conditions and project mechanisms of experts' preparation of the international standard on the basis of optimization of joint research will be prepared. This is important for the preparation of the international level experts in the sphere of social and humanitarian problems of nanotechnological modernization for the purpose of development of knowledge' directions in the Russian and German education system and activation of scientific research in this area. The questions under investigation are there: research of epistemic bases of nanotechnological revolution; the analysis of social and humanitarian problems and an interdisciplinary appraisal of social, ecological etc. consequences of nanotechnologies introduction and nanoethics; research of transdisciplinary problems of nanotechnological modernization; the analysis of problems of scientific and technical policy in the sphere of nanotechnological modernization. Description of scientific expertise





offered	
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Institute for Technology Assessment and Systems Analysis of the Karlsruhe Institute of Technology, Germany





Mr Konstantin Grasmik

PARTICIPANT						
Gender	<u>Mr</u>	□ Ms			Stimulation of creating versities	ng spin-off companies
First name	First name Konstantin					
Last name	Grasmik					
Position	Assistant p	rofessor				
ORGANISATION						
Organisation name		ate University by F.M.Dos	stoevsky		_	
Street Prospect M	ira, 55a*	_				
ZIP 644077*		City Omsk*			Country Ru	.ssia*
Phone (3812) 67-0		_			12) 67-37-99	
Email grasmikki@	omsu.ru*		T	Web w	ww.fmb.omsu.omsk	reg.ru
Employees	1 -10		11 - 5	50	51 - 250	250 +
Organisation type	Higher		Researd		Industry SME	other
Department	Faculty of	International Business				
Short description of your company or organization						
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLA	BORATI	IVE S&T PROJEC	CTS"
Sub-topic of exerc						
ultrahigh-power las intelligent materials quantum optics	ser sources s and nanomate		cesses			
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						
3. Research on se viral infections: HIV auto-immune disea	/ and Hepatitis					





	PROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords) Innovaton, research university, spin-off	

PROJECT IDEA(S)	
Short description of project	It is supposed to research factors, influencing the creation and development of spin-off companies in universities.
Description of scientific expertise offered	I already made sociological research of innovation activity os high-tech SME of Omsk, Russia (two rounds in 2006 and 2010 y). The relations in triangle "scholar-university-investor" were also explored.
Description of technical expertise offered	I have unlimited free access to Internet, to databases of articles (www.elibrary.ru, EBSCO, Sage, C+ - Russian legislature and others). Also I can work with SPSS.
Description of requested partner scientific expertise	It should have experience in carring out sociological research and executing econometric analysis.
Description of requested partner technical expertise	Access to Internet, scientific and statistical databases.
Potential partners (name, organisation, address)	1. Center for Research on Activity, Development and Learning P.O Box 26 (Teollisuuskatu 23-25) FI-00014 University of Helsinki, Finland phone: +358 9 191 44275 2. Einar Rasmussen Bodø Graduate School of Business N-8049 Bodø Norway Email: einar.rasmussen@hibo.no 3. Kathrin Müller Centre for European Economic Research) Mannheim, Germany Email: info@zew.de Phone: +49/621/1235-01 Fax: +49/621/1235-224 Postal: L 7,1; D - 68161 Mannheim





Dr Elena Grigorieva

PARTICIPANT						
Gender	☐ Mr	Ms		Title Dr.		
First name	Elena					
Last name	Grigorieva	a				
Position	Scientific	Secretary				
ORGANISATIO						
Organisation name Sciences	e Institute for	Complex Analysis of Reg	gional Probl	ems Far Easte	ern Branch Rus	ssian Academy of
Street * Sholom-	Aleikhem St., 4	4				
ZIP * 679016	5	City * Birobidzhan			Country *R	ussian Federation
Phone * +7 426	2220543			Fax +7 426	2261362	
Email * eagrig	or@yandex.ru		7	Web http://io	carp.ru/	
Employees	1-10		11 - 50		51 - 250	250 +
Organisation type	Higher		x Researd	ch Indust	ry SME	other
Department						
Short description of your company or organization	developmen	ctions of scientific act nt for natural and nature between nature and socie	e-economic	regional sys		
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLAB	ORATIVE S	&T Projec	CTS"
Sub-topic of exerc	eise					
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics 2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems x climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						
3. Research on so viral infections: HIV auto-immune disea	/ and Hepatitis					





	TROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	Modern state and scenario for development of natural ecosystems in regions with mixed floristic and faunistic zones in conditions of climate change. Comparison of processies in different regions and optimisation of environmental management in case of negative effect.
Description of scientific expertise offered	Investigation of a role of intraspecific and interspecific competition in forming and developed stratified forest cenosis stable in time with the help of the stand dynamics individually-oriented model. Analysis of game animal species natural habitat and their seasonal arrangement for certain regional ecosystems. Evaluation of dynamics in fodder reserves effecting a reproduction, survival and seasonal migration for game animal species in changing climatic conditions. Analysis of the present-day composition of small mammals in the region with use of genetic characteristics as a part of taxonomic investigation. Assessment of formation and development of dynamic regimes in the dynamics models for a limited population with age and sex structure.
Description of technical expertise offered	Development of base dynamic model for study of interspecific interactions in the wood stratified coenosis, computational experiments with a set of basic forest-forming species of the Middle Amur Region in Russia (humid), Germany (humid and semi-arid) and Izrael (arid) regions with different and changing climatic conditions. Elaboration of dynamic models for a limited population with age and sex structure. Analysis of synchronization mechanisms in fluctuation of biological population systems connected with migrations. Assessment of game influence on the populations' development and its optimization for environmental management. Estimation of mechanisms for spatial synchronization on the example of models for spatial-temporal dynamics of heterogeneous metapopulation.
Description of requested partner scientific expertise	Estimation of biodiversity and ecophysiology of natural ecosystems in regions with mixed floristic and faunistic zones in Germany and Izrael in conditions of climate change. Comparison of processies in different regions and optimisation of environmental management in case of negative effect.
Description of requested partner technical expertise	Elaboration of dynamic models for main species in regions with mixed floristic and faunistic zones in changed climate, their verification and evaluation.
Potential partners (name, organisation, address)	Prof. Pedro Berliner, Director, the Jacob Blaustein Institutes for Desert Research (BIDR), Sede Boqer Campus 84990, Israel Tel: 972-8-6596700, Fax: 972-8-6596703 email: dirbidr@bgu.ac.il, http://www.bgu.ac.il/BIDR Prof. Dr. Ralf Meissner, Department Bodenphysik Lysimeter Station Falkenberg, Helmholtz Centre for Environmental Research – UFZ, Dorfstrasse 55, 39615 Falkenberg, Germany Tel: +49 3918109771, Fax: +49 341235459771 email: ralf.meissner@ufz.de, http://www.ufz.de





Dr.Sc. Ivan Kalugin

PARTICIPANT							
Gender	☐ Mr	☑ Ms		Title	Dr. Sc.		
First name	Ivan						
Last name	Kalugin						
Position	Lead rese	earcher					
ORGANISATION	N DETAILS						
Organisation name	e Institute	of Geology and Mineral	ogy Russian A	Academ	y of Scie	ences, Siber	ian Branch
Street *	Prospekt a	kademika Koptyuga, 3					
ZIP * 63009	0	City * Novosibirsk				Country *	Russia
Phone * +7 383	333-31-12		I	Fax -	+7 383 3	33-27-92	
Email * ikalugi	n@uiggm.nsc	e.ru	V	Web			
Employees	1-10		11 - 50	1	5 1	- 250	250 +
Organisation type	Higher	Education Institution	Research Institution		Industry	SME	other
Department	Sedimento	logy Geochemistry					
Institute of Geology and Mineralogy Russian Academy of Sciences, Siberian Branch, was established in 1957. Basic lines of theoretical and applied research are tectonics, magmatism, fluid regime and metallogeny, as well as environmental and nature management, environment monitoring, environmental geochemistry of natural and cultural landscapes, climate studies and reconstructions of paleoclimates and Cenozoic deposition. Analytical centre provided modern equipment is functioning within IGM. IGM provides oportunities for PhD programms in fields listed above.							
TOPICS OF INT	EREST REG	ARDING THE CALL I	N "COLLAB	ORATI	IVE S&	T PROJEC	CTS"
Sub-topic of exerc	ise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics							
climate change in t	ophysiology of the artic and su	natural ecosystems	rage 🔲				
3. Research on se							





auto-immune diseases neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (<i>Free keywords</i>) analytical microstratigraphy – scanning X-ray flourescence analy Synchrotron radiation (XRF SR) with associated methods for lake sediments: field works, lithology, phy properties measurements, counting of annual layers, isotope dating; multi-proxy climate reconstructions.,	ysical

PROJECT IDEA(S)	
Short description of project	In order to reconstruct the last millennium climate in the Khibini mountains and surrounding subartic regions we will use the multi-proxy approach. We will sample and analyze trees and sub-fossil wood (tree width, density and stable isotopes), lake sediments and glacial moraines (lichenometry, 14C, 10Be). All these proxies are independent sources of climatic information. The advantage of this multi-proxy approach is the opportunity to reconstruct different climatic parameters, forcing the climatic signals in varies proxies. Using this approach we will be able to assess the high to low frequency climatic variability and to provide high resolution reliable regional climate reconstruction for the Khibini mountains and surrounding subartic regions useful for improving existing global climatic reconstruction and for further modeling experiments.
Description of scientific expertise offered	Research group deals of high resolution paleoclimatic reconstructions by lake sediments in Central Asia. Our group within lab Cenozoic Geology and Paleoclimate specializes on the lithological-geochemical analysis of recent lake sediments and quantitative reconstructions of climate variability on annual-decadal scale for the Holocene. Annually laminated sediments are preferable objects during the last time.
Description of technical expertise offered	Our research group consists of 4 research scientists, 3 student and 1 qualified technicians. We can select sediment cores and completely to process and analyse it, including scanning XRF SR, gamma spectrometry, preparing of solid preparates, optical and SE Microscopy, measurements of physical properties – magnetic, density, grin size etc. We have experts in lithology e.g. analytical geochemistry, We also have necessary equipment for coring (box-corer, gravity and piston corers).
Description of requested partner scientific expertise	For success of this project we require partners with expertise in radiocarbon dating, in paleoclimatology as well.
Description of requested partner technical expertise	We need to include in project a laboratory to process radiocarbon dating by AMS,
Potential partners (name, organisation, address)	Dr. Tatjana Boettger UFZ, Helmholtz Centre for Environmental Research–UFZ, Department of Isotope Hydrology, Theodor-Lieser-Strasse 4, D-06120 Halle, Germany. phone +49 3345 5585 227 / fax +49 3345 5585 449 tatjana.boettger@ufz.de





Dr. Michael Friedrich

Institute of Botany (210), Hohenheim University, Garbenstrasse 30, D-70593 Stuttgart, Germany Tel. +49 (0)711 459-22196, Fax +49 (0)711 459-23355

Michael.Friedrich@uni-hohenheim.de

Dr. Jomelli Vincent Laboratoire de Geographie Physique, CNRS, UMR 8591 1 place A. Briand 92195 Meudon, France

Tel. 33 1 45 07 55 81, 33 4 67 83 95 41





Prof. Oleg Khasanov

PARTICIPANT				
Gender	√ Mr	☑ Ms	Title Professor	
First name	Oleg			
Last name	Khasanov			
Position	Director of Nano-Centre of Tomsk Polytechnic University;			
Head of Department "Nanomaterials and Nanotechnologies" of TPU				

ORGANISATION DETAILS						
Organisation name	Organisation name National Research Tomsk Polytechnic University					
Street * 30, Lenin A	ve.					
ZIP * 634050		City * Tomsk			Country	* Russia
Phone * +7(3822)42	27242			Fax +7(3822)426936	
Email * khasanov@	<u>tpu.ru</u>				w.tpu.ru/eng/nartal.tpu.ru/depa	nnoc.htm rtments/centre/nano/eng
Employees	1 -10		11 - 5	50 √	51 - 250	250 +
Organisation type	√ Higher Education Institution					
Department	Nano-Centi	re of TPU; Department "I	Vanomate	rials and N	lanotechnologie	s" of TPU
Short description of your company or organization	Nano-Centre of TPU; Department "Nanomaterials and Nanotechnologies" of TPU TPU Nano-Centre is participant of the Russian National Nanotechnology Network; it is in the "Top 100 of Russian Organizations. Science. Innovations. R&D" in 2010. The pilot processing line for manufacturing articles from bulk functional and structural nanostructured ceramics has been established using modern equipment, devices, installations for processing/testing nanopowders and bulk nanoceramics. The technology is based on the developed and patented (in Russia, USA, Europe, S.Korea, Ukraine, etc.) new methods of compacting of dry nano- and poly-disperse powders under powerful ultrasound action and by the "collector" technique. In 2010 TPU Nano-Centre and Holding JSC "NEVZ-Soyuz" (Novosibirsk) were awarded by the Russian Ministry of Education and Science in result of Russian competition of projects according to the Government Decree #218 "Support of high-tech enterprises established in cooperation of universities with industry". TPU Nano-Centre, University of Kassel (Germany), Tomsk City Administration have organized the German-Russian Forum "Nanophotonics and Nanomaterials" to identify topics which might lead to joint R&D clusters or project groups (http://tpu.ru/php/news/events.php?n=3130 ; http://twww.owwz.de/index.php?id=882 ; Sept. 16-17, 2010, Tomsk).					

,	TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
;	Sub-topic of exercise
	Innovative materials and cutting edge technological processes ultrahigh-power laser sources
	intelligent materials and nanomaterials $$ quantum optics





2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems ☐ climate change in the artic and subartic regions ☐ Material sciences connected with energy convergion and storage √
3. Research on serious human health problems viral infections: HIV and Hepatitis
auto-immune diseases
neurodegenerative diseases
4. Contemporary socio-economic studies
Social security systems and welfare state (in the context of globalization)
Labour, labour market, and employment 🔲
Transformation of the educational system
Areas of activity (Free keywords) Nanoceramics, metal coatings, grains, interfaces

PROJECT IDEA(S)						
Short description of Project	Development of functional, structural nanostructured ceramics and coatings. The aim of the project is development of methods providing manufacturing the parts from nanostructured functional, structural ceramics and coatings having required shapes, structures and properties. Targeted nanoceramics: substrates for high-frequency electronics, armor ceramics, optical transparent ceramics; seals for pump lines, etc.					
Description of scientific expertise offered	Experience of 30 years, since 1980, in investigation of synthesis and properties of nano (ultra-dispersed) powders and ceramics, nano- and poly-dispersed powders compaction and consolidation, methods providing formation of nanostructure in the ceramics.					
Description of technical expertise offered	Pilot series of parts from different kinds of nanostructured structural and armor tough, wear-proof, high-strength ceramics; functional optical, ferroelectric, piezo-,electro-ceramics (ZrO ₂ -Y ₂ O ₃ ; Al ₂ O ₃ ; ZrB ₂ ; Nd-Y ₂ O ₃ ; Nd:Y ₃ Al ₅ O ₁₂ ; (Ba,Sr)TiO ₃ ; Ba-W-Ti-O; Pb(Zr,Ti)O ₃ ; etc.) have been developed for applications in automobile, cable, nuclear power industries, electronics, telecommunications.					
Description of requested partner scientific expertise	Experience in high resolution TEM for investigation of nanoscaled interfaces and grains in the ceramic structure; nanotribology.					
Description of requested partner technical expertise	Know-how in nanopowder synthesis, nanoceramics manufacturing and metal coating deposition on fine ceramics.					
Potential partners (name, organisation, address)	1. TPU Nano-Centre (Prof. Oleg Khasanov; khasanov@tpu.ru ; http://portal.tpu.ru/departments/centre/nano/eng ; 30, Lenin Ave., Tomsk Polytechnic University, Tomsk, 634050, Russia. Tel./fax +7(3822)427242). 2. Holding JSC "NEVZ-Soyuz" (Mrs. Anastasiya Medvedko; marketing@nevz.ru ; http://ru.nevz.ru/ ; 220 Krasnyi prospect, Novosibirsk, 630049, Russia. Tel. +7(383)2106284; Fax +7(383)2258275). 3. Fraunhofer IKTS Institutsteil Hermsdorf (DrIng. Uwe Reichel; uwe.reichel@ikts.fraunhofer.de ; www.ikts.fraunhofer.de ; Michael-Faraday-Str. 1, 07629 Hermsdorf, Germany; Telefon +49(36601)9301-3931; Fax +49(36601)9301-3921).					





Mrs Nataliya Kondratyeva

PARTICIPANT				
Gender	☐ Mr	X Ms	Title	Candidate in Economy Sciences
First name	Nataliya			
Last name	Kondratye	eva		
Position	Head of e	economic integration centre		

ORGANISATION	DETAILS							
Organisation name	Institute o	f Europe	e, Russian Acade	emy of Sci	ences			
Street *	Mokhov	aya st., 1	1-3"B"					
ZIP *		City *	Moscow				Country *	Russia
Phone * +7 903	779-16-55				Fax	629-92	-96	
Email * nkondra	tieva@inbox	.ru			Web	www.ie	ras.ru	
Employees	1 -10			1 11 -	50	5 2	₋ - 250	250 +
Organisation type	Higher Education Institution			X Resear		Industry	SME	other
Department	Department of European Integration Research							
Short description of your company or organization	research of	multifac		in conter				ss-discipline academic e works on economic,

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases





	TROGRAMME				
neurodegenerative diseases					
4. Contemporary socio-economic stu	dies				
, ,	Social security systems and welfare state (in the context of globalization) ${f X}$				
Labour, labour market, and employment					
Transformation of the educational system	m 🔲				
Areas of activity (Free keywords)	Socio-economic models of development, social and economic modernisation				

PROJECT IDEA(S)	
Short description of project	The project is designed to elaborate on experience of socio-economic models of development in different categories of European countries, including Russia, particularly on the experience of "welfare states", to assess results and prospects of these models in the sphere of integration policies including multiculturalism, assimilation, etc.
Description of scientific expertise offered	The Institute of Europe has an extensive expertise and well-established reputation in Russia and abroad as a source of numerous studies on social security systems, welfare states, labour markets, etc. in Europe.
Description of technical expertise offered	
Description of requested partner scientific expertise	Institute of Europe has numerous partners – think tanks, universities, research centers in many European countries. It is in the process of choosing its partners for this particular project.
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	National Centre for Scientific Research (France)





Prof. Nikolay Korovkin

PARTICIPANT				
Gender	Mr		Title	Professor
First name	Nikolay			
Last name	Korovkin			
Position	Head of o	chair "Electical Engineering"		
ORGANISATION	DETAILS			
Organisation name	St-Petersl	ourg State Polytechnical Uni		
Street *	Polytechn	icheskava 20		

ORGANISATION	DETAILS							
Organisation name	St-Petersbur	g State	Polytechnical U	ni				
Street *	Polytechnich	eskaya	, 29					
ZIP * 195251	(City *	St-Petersburg				Country *	Russia
Phone * +7 (812)	297-16-16,552	2-62-40			Fax	+7 (812) 552-60-80		
Email *					Web	www.sı	bstu-eng.ru/	
Employees	1 -10			11 - 5	50	□ 51	L - 250	250 +
Organisation type	I IXI Higher Education Institution —		Researd	ch	Industry	SME	other	
Department	Electromechanical							
Short description of your company or organization	See, pls, site o	of Uni <u>v</u>	www.spbstu-eng	.ru/				

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials 🖂
quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems
viral infections: HIV and Hepatitis
auto-immune diseases 🔲
neurodegenerative diseases 🔲





	SEVENTH FRAMEWORK PROGRAMME
Social security system Labour, labour market	cio-economic studies as and welfare state (in the context of globalization) t, and employment educational system
Areas of activity (Fre	e keywords)
PROJECT IDEA(S)	
	Context
	Obtaining more efficient electromagnetic shielding is a constant need in today's society, in particular in the aeronautics and electronic industries, given the increasing demands on the reliability of electronic devices in an electromagnetically polluted environment. Based on recent developments, especially from the characterization point of view in the field of nanotechnology and more particularly in nanofiller production, new opportunities have been created to provide lighter shields (cost-weight) without creating any limitation for structural designers and offering better adhesion, corrosion and oxidation resistance, recyclability, gasket compatibility and durability.
	Aim of the Study
Short description of	Nanofillers in the form of metallic particles, single-wall carbon nanotubes (SWCNs), or multi-walled carbon nanotubes (MWCNs) have been recently used by different research groups for

project

electromagnetic shielding. However, the interaction mechanisms between nanoparticles and EM waves are not fully understood. For example, some studies have shown that a composite material having a conductive particle of small unit size would be more effective in terms of shielding effectiveness than one having conductive particles with a large unit size of the particles. Furthermore, most of the studies on the shielding effectiveness of nanoparticles are carried out in the radiofrequency and microwave range. It is not clear how effective nanoparticles are in shielding low frequency electromagnetic fields.

The objective of the study is twofold: (a) to develop the theoretical foundation for the characterization of the electromagnetic shielding behavior of polymer-matrix composite (PMC) with nanoparticles, and (b) to evaluate the influence of the PMC structure and the nanofillers size, density and distribution on the electromagnetic shielding efficiency for frequencies ranging from tens of kHz up to the GHz region.

Description of scientific expertise offered	
Description of technical expertise offered	





Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Otto-von-Guericke Uni Magdeburg, Germany, EPFL, Lausanne, Switzerland, Institute of Microtechnology, University of Neuchâtel, Switzerland, Information and Communications Technology Institute of the HEIG-VD





Prof. Boris Krylov

PARTICIPANT							
Gender	☑ Mr Mr	☑ Ms		Title	Profe	ssor	
First name	Boris			1			
Last name	Krylov						
Position	Deputy I	Director					
_							
ORGANISATION		on on o		6.0 :			
		tute of Physiology Russian	n Academ	y of Scien	ices		
Street * nab. Maka	rova, 6	C:4- * C-:4 D-41				C*	Describe F. Lentier
ZIP * 199034 Phone * +7911299	2507	City * Saint-Petersburg		Fax 812	2200		Russian Federation
Email * krylov@i						ww.infran.ru	
Eman · Krylov@i	mmam.ru			web iii	ιρ.//w\ 	ww.iiiiiaii.iu	
Employees	1 -10		11 - 9	50 51 - 250		1 - 250	250 +
Organisation type	Higher	Higher Education Institution			other		
Department							
Short description of your company or organization	Pavlov Institute of Physiology of the Russian Academy of Sciences originates from the Physiological Institute of the USSR Academy of Sciences, which was founded in 1925 on the base of the Physiological Laboratory. At present, Pavlov Institute of Physiology is one of the largest multi-profile physiological institutions of the country. Working in its 33 laboratories, sectors and groups are more than 250 researchers, including about 200 Doctors and Candidates of Sciences.						
TODICS OF INTE	DECT DEC	ADDING THE CALL IN	6COLLA	DODATE	VE C	₽T DDOIEC	ran
TOPICS OF INTE	TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS" Clinical application of						
Sub-topic of exercise laser devices for chronic pain relief							
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources + intelligent materials and nanomaterials quantum optics intelligent materials and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions material sciences connected with energy convergion and storage stora							





	FROGRAMME
auto-immune diseases	
neurodegenerative diseases +	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords) Neurophysiology, Ionic channels of excitable membranes, pain relief, infrar	ed laser
irradiation	

PROJECT IDEA(S)	
Short description of project	Responses of rat dorsal root sensory neuron cell membrane to the influence of infrared (IR) low-power irradiation were investigated using whole-cell patch-clamp method. As a very sensitive physiological indicator of membrane response, the effective charge transfer in the activation gating system of the tetrodotoxin-resistant (TTXr, Nav1.8) sodium channels which are responsible for pain sensation is measured. In this case, it is found using patch-clamp method that the threshold value of low-power IR irradiation was equal to the energy carried of 200 photons. Energy carried by 2000 photons (the wave length was equal to 10.6 mkm) lead to heating of the membrane. These values determine the energy range that should be used in clinical practice for pain relief. Our results indicate that the low-power IR irradiation that leads to the physiological effects under consideration is spectral selective. Low-power irradiation of wave lengths equal to 1.05 and 3.39 mkm were ineffective. But the change-over of the wave length from 10.57 mkm to 9.24 mkm results in existence and conservation of the physiological effect under consideration. We predict that ATP molecules are excited not only due to excitation of P-O-P bond (10.57 mkm) but also C-O-P bond (9.24 mkm). As a result, the transducer function of Na, K- ATPase should be activated. This fact, in turn, leads to the decrease in excitability of TTXr channels and to pain relief. This result is confirmed by the behavioral experiments on rats ("Formalin test"). The data obtained have clinical implications. The characteristics of medical device are formulated. These characteristics determine the efficiency of clinical application of the new-made laser device. Different forms of pain syndrome are incurable up-to-now. As a result millions of patients are suffering from chronic pain. Our preliminary impressions from clinical trials of the method are promising. The new results in the field of skin laser therapy show their effectiveness for pain relief. The aim of the project is the d
Description of scientific expertise offered	The scientific expertise has been done in 2008. This part of this work was supported by of Russian Foundation of Basic Research by the grant N 08-04-90029-Bel-a Recent publications on the topic were presented in Russian Journal "Sensory Systems" and Belarus Journal of Applied Spectroscopy in 2010.
Description of technical expertise offered	The standard procedure of technical expertise of the new medical laser device should be done in the certified State Institute of Medical Technique (Moscow).
Description of requested partner scientific expertise	The developed device should be tested PRACTICALLY in clinics. Positive results as pilot data have been obtained.





Description of requested partner technical expertise	
Potential partners (name, organisation, address)	At present an interested support of this Project is obtained by Professor Joergen Schwarz, Center of Molecular Neurobiology Hamburg (ZMNH) (Germany). Juergen Schwarz juergen.schwarz@zmnh.uni-hamburg.de Prof. Juergen R. Schwarz University Medical Center Hamburg-Eppendorf ZMNH Institut fuer Neurale Signalverarbeitung Falkenried 94 20251 Hamburg Germany Tel.:040 - 7410 - 55083 Fax::040 - 7410 - 56643





Prof. Yuri Kulchin

PARTICIPANT			
Gender	Mr	☐ Ms	Title Prof
First name	Yuri		
Last name	Kulchin		
Position	Director		

ORGANISATION	DETAILS				
Organisation name Institute of Automation and Control Processes, Far Eastern Branch of Russ. Acad. of Sci					
Street *	5, Radio				
ZIP * 690041	City * Vladivostok		Country *	Russia	
Phone * +7-4232	2-268890	Fax	Fax +7-4232-310452		
Email * kulchin(@iacp.dvo.ru	We	eb http://www.iacp.dvo.	.ru/	
Employees	1 -10	11 - 50	51 - 250	2 50 +	
Organisation type	I I Higher Education Institution	Research Institution	Industry SME	other	
Department	Optoelectronics				
Short description of your company or organization	R&D projects (basic, applied and innovative) in the fields of quantum electronics, laser physics, fluid & gas dynamics, surface physics, information & computer science technology, automatized control systems, World Ocean & Earth atmosphere monitoring.				

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials
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quantum optics 🖂
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems
, , , , , , , <u> </u>
climate change in the artic and subartic regions
Material sciences connected with energy convergion and storage
3. Research on serious human health problems
_ `
viral infections: HIV and Hepatitis
auto-immune diseases





	TROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords) nanometrology, optical & fiber-optical sensors, nano-materials	

PROJECT IDEA(S)	
Short description of project	Development of bio-photonics sensors based on natural and artificial nano-structures and nano-materials.
Description of scientific expertise offered	laser physics, quantum electronics, optoelectronics, fiber & non-linear optics
Description of technical expertise offered	fiber-optical sensors & measurement systems, natural materials for photonics, nano-composites, structural health monitoring
Description of requested partner scientific expertise	optics & photonics
Description of requested partner technical expertise	photonic crystals, photonic materials, meta-materials, nano-sensors, bio-sensors
Potential partners (name, organisation, address)	Alexei Kamshilin, University of Eastern Finland (Kuopio, Finland); Nikolaos Vainos, National Hellenic Research Foundation (Athens, Greece); Optoinspection Oy (Joensuu, Finland); Karsten Buse, University of Bonn (Bonn, Germany)





Mr Vladimir Molchanov

I ARTICIPANT						
Gender	X Mr			Title P	Phd	
First name Vladin	nir					
Last name Molc	hanov					
Position						
ORGANISATION	N DETAILS					
•		ogical Institute, FEB o	f RAS,			
	ospect 100-letya				,	
ZIP * 690022		City * Vladivostok			Country *	Russia
Phone *8 4232 31					232 317847	
Email * vpmol@i	nail.ru			Web V	VWW.fegi.ru	1
Employees	1 -10		11 - 5	50	51 - 250	2 50 +
Organisation type	Higher Ed	Higher Education Institution Research Institution Industry SME other				
Department	Far Eastern Branch Russian Academy of Sciences					
Short description of your company or organization	suburb north of Recently an A sophisticated of rocks and in The Institute's Member of the recognized for its history the Moiseenko an I. Ya. Nekraso FEGI is a complaboratories with geochemistry, The Geology, little studies of the Metallogeny Environment	ninerals, including the first Director was Eka e USSR Academy of S r her decisive role in or Institute has been head d A.D. Scheglov, and o	stitute inchreated, fur treated, fur tical Cente delineation tterina Ale. sciences, an rganizing a ded by rend Correspondation the most and geoecontific active agmatism a to transition to environman	udes seven nished with or conducts n of light in xandrovna nd a Hero and development sci- ding Mem gical resear difficult at ology of the ities fall in and metan n zone even nents; the atmosp	nteen research labor th up-to-date precisis the full range of an isotopes and rare ea a Radkevich who was of Socialist Labor. Deping FEGI's basic rentists, including Amber of the Russian American institution equipand complex issues of the Russian Far East not three main research orphism within the plution;	ratories and a museum. ion apparatus and nalytical investigations rth elements. as a Corresponding Director Radkevich is research. Throughout cademicians V.G. Academy of Sciences oped with up-to-date of geology, arch areas: Earth's crust, and

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"





Sub-topic of exercise	
1. Innovative materia ultrahigh-power laser intelligent materials ar quantum optics	_ _
biodiversity and ecoph climate change in the	earch and cl matic change nysiology of natural ecosystems artic and subartic regions nected with energy convergion and storage
3. Research on serio viral infections: HIV ar auto-immune diseases neurodegenerative dis	
Social security system Labour, labour market	cio-economic studies as and welfare state (in the context of globalization) , and employment educational system
Areas of activity (Fre	e keywords)
PROJECT IDEA(S)	
Short description of project	Investigation of properties of nanostructures in carbon from gold, platinum and graphite-bearing rocks of the southern Far East Russia. Encresed concentrations of gold and platimun group metals have been recently established in the graphitized rocks of the southern Far East. Investigation of graphite microstructures resulted in finding out of several types of carbon nanostructures: fullerites, fibroid carbon nanotubes and nanofilms. It is established that carbon nanoforms are in close correlation with gold microglobulars and nanospeeroids. The central purpose of the project in this connection is the usability of gold, platinum and graphite-bearing rocks as a source of carbon- and gold-bearing nanomaterials. A revealing of forms of possable presence of precious metalls in carbon micronanostructures is very actual for development of efficient technology for their industry extracting.
Description of scientific expertise offered	1
Description of technical expertise	-

offered





Description of requested partner scientific expertise	
Description of requested partner technical expertise	-
Potential partners (name, organisation, address)	-





Dr Ilya Mordvintsev

biodiversity and ecophysiology of natural ecosystems 🖂

PARTICIPANT						
Gender	Mr	Ms Ms	Tit	tle Dr.		
First name	Ilya					
Last name	Mordvint	sev				
Position	Senior re	Senior research scientist				
ORGANISATION						
Organisation name		ertsov Institute of Ecology	and Evolution	of the Russian Acaden	ny of Sciences	
Street * 33, Lenin	skiy prospect			ſ		
ZIP * 119071		City * Moscow		Country *	Russia	
Phone * +7-926-			Fax	+7-495-135-99-71		
Email * ilia.moi	rdvintsev@gr	nail.com	Web	www.sevin.ru		
Employees	1-10		11 - 50	51 - 250	250 +	
Organisation type	Higher		Research nstitution	Industry SME	other	
Department	Laboratory for biodiversity concervancy and bioresources use					
Short description of your company or organization The Institute of Ecology and Evolution of the Russian Academy of Sciences established in 1934 by academician A.N. Severtsov is one of the leading biological institutes of Russia. The Institute is a scientific research centre on ecology, biological diversity, ethology, evolutionary morphology and nature conservation. The principal directions of studies are: - structural and functional organization, dynamics and evolution of populations, communities and ecosystems; - ecology of organisms and mechanisms of adaptation; - ecological and evolutionary aspects of animal behavior and communications; - morphological regularities and mechanisms of animal evolution; - biological diversity and sustainable use of biological resources; - fundamental problems of nature conservation.						
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS" Sub-topic of exercise Improvement of the system of the methods for evaluation of the state and monitoring (including satellite remote sensing) of the objects of animal world, including the species registered in the Red Data Books of various rank, and also of their environment. Sea ice dynamics and multiyear variability in framework of global climate changes. 1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics quantum optics						
2. Environmental r	2. Environmental research and cl matic change					





climate change in the artic and subartic regions 🛛	
Material sciences connected with energy convergion and storage	
3. Research on serious human health problems	
viral infections: HIV and Hepatitis	
auto-immune diseases	
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords) Russian Arctic, sea ice habitats, arctic ecosystems, polar bear, Argos se	atellite
tracking	

PROJECT IDEA(S)	
Short description of project	Polar bear satellite tracking in the Russian Arctic Regions
Description of scientific expertise offered	Remote sensing (satellite and aerial) for habitat studies. Polar bear ecology.
Description of technical expertise offered	Remote sensing satellite systems (radar (SAR), passive microwave).
Description of requested partner scientific expertise	Alaska Science Center, USGS USA
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	David C. Douglas Research Wildlife Biologist USGS Alaska Science Center Biology and Geography Sciences, Juneau Office, 3100 National Park Road Juneau, AK 99801 U.S.A.





Prof. Dr Andrei Naumov

PARTICIPANT						
Gender	☐ Mr	Ms		Title	Prof. Dr.	
First name	Andrei					
Last name	Naumov					
Position	Scientific	vice-director, head of de	partment			
ORGANISATIO	N DETAILS					
Organization nam	e Institute f	for Spectroscopy, Russian	Academy of	of Science	es	
Street * Fiziches	kaya Str., 5					
ZIP * 142190		City * Troitsk, Mosco	w region		Country *	Russia
Phone * +7(910)4706703			Fax +	7(496)7510886	
Email * naumo	v@isan.troitsl	c.ru		Web w	ww.isan.troitsk.ru	
Employees	1-10		11 - 50)	51 - 250	250 ±
Organisation type	Higher		Research		dustry SME	other
Department	Direction,	Molecular Spectroscopy I	Department			
Short description of your company or organization	gases, liqui	The Institute's activity covers practically all kinds of spectroscopies: atomic, molecular, plasma, gases, liquids, condensed matter, disordered solids, crystals, nanostructures, polymers, biological systems; as well as related fields, R&D, and education.				
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLAB	ORATIV	/E S&T PROJEC	CTS"
Sub-topic of exerc	eise					
1. Innovative mat ultrahigh-power las intelligent material quantum optics	ser sources 🛛 s and nanomate	ng edge technological pro	cesses			
climate change in	cophysiology of a the artic and sul	natural ecosystems 🔲	ige 🖂			
3. Research on so viral infections: HIV auto-immune disea	V and Hepatitis					





PROGRAMME
ļ
gnostics, tructures,

PROJECT IDEA(S)	
Short description of project	Spectroscopy and imaging of single quantum objects (quantum dots, molecular complexes, dye molecules embedded into condensed matter). Spectral nanodiagnostics of structure and dynamics of disordered solids by single-molecule spectromicroscopy.
Description of scientific expertise offered	Single-molecule spectroscopy and imaging, nanoparticle detection, photon echo, low-temperature glass and polymer dynamics, theoretical quantum optics, Raman scattering, automatic images recognition.
Description of technical expertise offered	Equipment for single-molecule spectromicroscopy and photon echo in condensed matter doped with emitting nanoprobe centers in a broad range of low temperatures (from 1,5K to room temperature) at normal and high (upto 30 kbar) hydrostatic pressure.
Description of requested partner scientific expertise	Physics and physical chemistry of single quantum objects (organic dyes, molecular complexes, quantum dots, nanocrystals). Dynamics of disordered solids (relaxations, glass transition).
Description of requested partner technical expertise	Synthesis of dyes, macromolecules, polymers, molecular complexes; equipment for single-molecule spectroscopy, imaging, atomic-force microscopy, cryogenic researches; equipment for researches of disordered solids dynamics.
Potential partners (name, organisation, address)	Prof. J. Koehler, Prof. L. Kador, Prof, E. Roessler, Bayreuth University, Germany; Prof. M. Orrit, Leiden University, The Netherlands; Prof. T. Basche, University of Mainz, Germany





Dr. Sc. Andrey Oleynik

PARTICIPANT					
Gender	Mr	☐ Ms	Title Dr.Sc. (Eng)		
First name	Andrey				
Last name	Oleynik				
Position	Dep. dire	ctor			

ORGANIZATION DETAILS								
Organization name	Organization name Establishment of the Russian Academy of Sciences Institute for Informatics and Mathematical Modelling of Technological Processes, Kola Science Center RAS (IIMM KSC RAS)							
•		esses, Ko	la Science Cent	ter RAS (I	IMM K	SC RAS)	
Street * Fersman	st., 24a							
ZIP * 184209	1	City *	Apatity (Murm	ansk regio	on)		Country *	Russian Federation
Phone * +7(81555)	79602				Fax	+7(815	55)74050	
Email * administ	tration@iimn	n.kolasc.n	et.ru		Web	www.ii	mm.ru	
Employees	1 -10			2 11 - 9	50	5 2	1 - 250	250 +
Organisation type	Higher l	Education	Institution	Resear Institution		Industry	y SME	other
Department	Department of nano- and information technologies of the Russian Aca			ian Academy	of Sciences			
Short description of your company or organization	Modelling of founded on informatics scientific ar Scientific 1 Presidium: 1. Developing researches a	Establishment of the Russian Academy of Sciences Institute for Informatics and Mathematical Modelling of Technological Processes of the Kola Science Centre RAS (IIMM KSC RAS), was founded on January 31st, 1989 by the decision of the Presidium of AS USSR. The department for informatics, computer engeneering and automation AS USSR (RAS) was put in charge of scientific and methodical management of the Institute. Scientific research directions were determined by the decision 17/03/98 N92 of the RAS Presidium: 1. Development of integrated information systems for regional management, integrated scientific researches and education. 2. Advanced technological systems and processes modelling in mining and chemical industries.						

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"			
Sub-topic of exercise			
1. Innovative materials and cutting edge technological processes			
ultrahigh-power laser sources			
intelligent materials and nanomaterials 🔲			
quantum optics 🔲			
2. Environmental research and cl matic change			
biodiversity and ecophysiology of natural ecosystems			
climate change in the artic and subartic regions			
Material sciences connected with energy convergion and storage			





3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (Free keywords) global security, regional development support, information technologies and systems, mathematical modeling, simulation, system dynamics

PROJECT IDEA(S)	
Short description of project	Project title: Cognitive information technologies for information and analytical support of safety management in the development of Arctic regions of Russia in the context of globalization. Project goal: Research and development of cognitive models, methods and technologies for information and analytical support of safety management in regional development to improve stability of a regional economical system and ensure favourable conditions for efficient growth of intelligent, innovation, industrial and socio-economic potential of the region in the context of globalization. Theoretical novelty and practical importance of the project implementation outcomes lies in the development of a cognitive methods complex, tools and technologies forming an open expandable information and analytical environment. The environment ensures safety control in the development of a regional socio-economic system, and serves to form favourable conditions for implementation of an acceptable risks conception, information support of organizational structures providing safety in the functioning of regional subsystems, as well as step-by-step building of a complex safety system to protect territories, population and objects of crucial importance for national security in Arctic zone of the Russian Federation from hazard of natural and man-caused emergencies.
Description of scientific expertise offered	Under development
Description of technical expertise offered	-
Description of requested partner scientific expertise	Under development
Description of requested partner technical expertise	-





Potential partners (name, organisation,	Popkov Yu.S., Establishment of the Russian Academy of Sciences Institute for System Analysis of RAS (ISA RAS), Russia, 117312, Moscow, pr. 60-letiya Oktyabrya, 9 Smirnov A.V., Establishment of the Russian Academy of Sciences, St. Petersburg Institute for Informatics and Automation of RAS (ISA RAS), Russia, 199178, St. Petersburg, 14 line, 39. Jukka Aaltonen, Olli-Pekka Kaurahalme, Tytti Kurtti, University of Lapland, Rovaniemi,
organisation, address)	Finland Atle Melkild, Kola Science Center Norway AS, Tromso, Norway





Mr Roman Omelchuk

PARTICIPANT						
Gender	☐ Mr		Title	Mr		
First name	Roman					
Last name	Last name Omelchuk					
Position						
ORGANISATION	DETAILS					
Organisation name	The East-Sil	berian State Ac	ademy of	Education		
Street *	9, Suhe-Ba	ntora				
ZIP * 664003	(City * Irkutsk		Country	* RUSSIA	
Phone * (3952)2410	97			3952)240559		
Email * mail@igpt	u.ru		Web ww	w.igpu.ru		
Employees					250 +	
Organisation type	☐Higher Edu Institution	ucation	☐ Re Institu	esearch ation	Company	other
Department	Faculty of Hu	ımanities				
Short description of your company or organization	The State edu	The State educational institution of higher education, "East Siberian State Academy of Education"				
TOPICS OF INTE	REST REGAR	DING THE C	ALL FOR	a "Innovation	ON PROJECTS"	
Sub-topic of expertise	ICT Biotechnol	Materia Energy	ls	Health Space	Environment a Climate Transport	nd Production Technologies Optical
						Technologies
Other (Free keyword	ds) Belief,	Education, Ph	llosophy			
PROJECT IDEA(
	I Ontology of	halief nercon	al and coo	io-cultural mech	vanieme of euccession	n of values. Department of





	PROGRAMME
Short description of project	Cultural Relations
Description of scientific expertise offered	Ontology of Belief
Description of technical expertise offered	Creating intercollegiate cultural movement in Eastern Siberia
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	All Universities





DrSc. Vladimir Putilov

PARTICIPANT			
Gender	Mr	☐ Ms	Title Dr.Sc. (Eng)
First name	Vladimir		
Last name	Putilov		
Position	Director		

stablishment o	of the Russian Acade								
	of the Russian Acade		ORGANIZATION DETAILS						
1 D	Organization name Establishment of the Russian Academy of Sciences Institute for Informatics and Mathematical								
cai Processes,	Modelling of Technological Processes, Kola Science Center RAS (IIMM KSC RAS)								
Street * Fersman st., 24a									
City	* Apatity (Murm	nansk region) Country *			Country *	Russian Federation			
2			Fax +7(81555)74050						
n@iimm.kolas	sc.net.ru		Web	www.ii	mm.ru				
1-10		2 11 - 5	50	5 2	1 - 250	250 +			
Higher Educat	tion Institution I			Industry	y SME	other			
Department of nano- and information technologies of the Russian Academy of Sciences									
Establishment of the Russian Academy of Sciences Institute for Informatics and Mathematical Modelling of Technological Processes of the Kola Science Centre RAS (IIMM KSC RAS), was founded on January 31st, 1989 by the decision of the Presidium of AS USSR. The department for informatics, computer engeneering and automation AS USSR (RAS) was put in charge of scientific and methodical management of the Institute. Scientific research directions were determined by the decision 17/03/98 N92 of the RAS Presidium: 1. Development of integrated information systems for regional management, integrated scientific researches and education.									
	City 2 n@iimm.kola 1-10 Higher Educa partment of na ablishment of delling of Technical on Januar ormatics, compension and the control of	City * Apatity (Murm 2 n@iimm.kolasc.net.ru 1-10 Higher Education Institution Deartment of nano- and information ablishment of the Russian Acade delling of Technological Process anded on January 31st, 1989 by the prince of the computer engeneering entific and methodical management entific research directions were sidium: Development of integrated informations and education.	City * Apatity (Murmansk region 2	City * Apatity (Murmansk region) 2	City * Apatity (Murmansk region) 2	City * Apatity (Murmansk region) Country * Fax +7(81555)74050 Meb www.iimm.ru 1-10 Research Institution Research Industry SME Deartment of nano- and information technologies of the Russian Academy ablishment of the Russian Academy of Sciences Institute for Informated delling of Technological Processes of the Kola Science Centre RAS (Inded on January 31st, 1989 by the decision of the Presidium of AS USS parmatics, computer engeneering and automation AS USSR (RAS) we centific and methodical management of the Institute. Development of integrated information systems for regional management of regional managem			

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions





Material sciences connected with energy convergion and storage	
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (<i>Free keywords</i>) global security, regional development, information technologies and s system dynamics, simulation	ystems,

PROJECT IDEA(S)	
Short description of project	Project title: Cognitive information technologies for information and analytical support of safety management in the development of Arctic regions of Russia in the context of globalization. Project goal: Research and development of cognitive models, methods and technologies for information and analytical support of safety management in regional development to improve stability of a regional economical system and ensure favourable conditions for efficient growth of intelligent, innovation, industrial and socio-economic potential of the region in the context of globalization. Theoretical novelty and practical importance of the project implementation outcomes lies in the development of a cognitive methods complex, tools and technologies forming an open expandable information and analytical environment. The environment ensures safety control in the development of a regional socio-economic system, and serves to form favourable conditions for implementation of an acceptable risks conception, information support of organizational structures providing safety in the functioning of regional subsystems, as well as step-by-step building of a complex safety system to protect territories, population and objects of crucial importance for national security in Arctic zone of the Russian Federation from hazard of natural and man-caused emergencies.
Description of scientific expertise offered	Under development
Description of technical expertise offered	-
Description of requested partner scientific expertise	Under development
Description of requested partner	-





technical expertise	
Potential partners (name, organisation, address)	Popkov Yu.S., Establishment of the Russian Academy of Sciences Institute for System Analysis of RAS (ISA RAS), Russia, 117312, Moscow, pr. 60-letiya Oktyabrya, 9 Smirnov A.V., Establishment of the Russian Academy of Sciences, St. Petersburg Institute for Informatics and Automation of RAS (ISA RAS), Russia, 199178, St. Petersburg, 14 line, 39. Jukka Aaltonen, Olli-Pekka Kaurahalme, Tytti Kurtti, University of Lapland, Rovaniemi, Finland Atle Melkild, Kola Science Center Norway AS, Tromso, Norway





Mr Valery A. Rasskazov

PARTICIPANT				
Gender	☐ Mr	☐ Ms	Title	Ph.D.
First name	Valery A			
Last name	Rasskazov	,		
Position	osition Deputy Director			
ORGANISATION DETAILS				
Organisation name: Pacific Institute of Bioorganic Chemistry of Far Eastern Branch of RAS				
G				

ORGANISATION	DETAILS			
Organisation name: Pacific Institute of Bioorganic Chemistry of Far Eastern Branch of RAS				
Street * Prospect S	Stoletya 159a	•		
ZIP * 690022	City * Vladivostok	Country * Russian Federation		
Phone * +7(4232)	31-14-30	Fax * +7(4232) 31-40-50		
Email * raskaz@p	piboc.dvo.ru	Web http://www.piboc.dvo.ru/		
Employees	1-10	□ 11 - 50 □ 51 - 250 □ 250+		
Organisation type	Higher Education Institution	Research Industry SME other		
Department				
Short description of your company or organization	Pacific Institute of Bioorganic Chemistry conducts researches in the field of bioorganic chemistry, biochemistry, molecular immunology, marine microbiology and biotechnology. Objects of the researches are the marine organisms (including microorganisms) of Ocean and unique forests plants of the Far East of Russia. Many chemical compounds studied in Institute have been shown to possess a powerful physiological activity towards cancer cells and pathogenic viruses and bacteria, that has created the basis for production of the novel medicines and food additives for treatment and prophylaxis of the different human diseases.			

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials 🔲
quantum optics
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems
climate change in the artic and subartic regions
Material sciences connected with energy convergion and storage
3. Research on serious human health problems





	FROGRAMME
viral infections: HIV and Hepatitis	
auto-immune diseases neurodegenerative diseases	
neuroucycherative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (Free keywords)	
Natural compounds, marine invertebrates, marine microorganisms, algae, structure, biological activity, effect, antifungal activity, antioxidants, antiviral activity, immunostimulator, cancer-preventive activity,	
against fungal, parasitic, bacterial, and viral diseases.	

PROJECT IDEA(S)	
Short description of project	Searching for novel bioregulators among the marine organisms, including microorganisms, studying their structure and biological activity and working out the novel technologies to obtain the novel medicines and valuable biochemical preparations for diagnostics and treatment such diseases as cancer, viral, autoimmune, cardiovascular and neurodegenerative etc.
Description of scientific expertise offered	 We would need scientific expertise to this project who: would carry out the investigations in field of the natural compounds chemistry and would carry out the investigations in field of natural compounds bioassaying; would have the experience of the creation of the novel medicines to treat such diseases as cancer, viral, autoimmune, cardiovascular and neurodegenerative;
Description of technical expertise offered	We would need technical expertise to this project who: - would have the experience in field of working out the novel technological methods for preparations of the novel medicines; - would have the experience in assessment of market prospects for novel medicines
Description of requested partner scientific expertise	 We would need scientific expertise requested partner to this project who: would carry out the investigations in field of the natural compounds chemistry and would carry out the investigations in field of natural compounds bioassaying; would have the experience of the creation of the novel medicines to treat such diseases as cancer, viral, autoimmune, cardiovascular and neurodegenerative;
Description of requested partner technical expertise	We would need technical expertise requested partner to this project who: - would have the experience in field of working out the novel technological methods for preparations of the novel medicines; - would have the experience in assessment of market prospects for novel medicines
Potential partners (name, organisation, address)	 Proteome Center Rostock, University of Rostock, Schillingallee 69, D-18057 Rostock, Germany; Institute of Immunology, University of Rostock, Schillingallee 68, D-18057 Rostock, Germany; AstraZeneca Global; Novartis Institutes for Biomedical Research; Pharma Research and Early Development, Roche;





Dr Roman Romashko

PARTICIPANT				
Gender	☑ Mr	☐ Ms	Title Dr	
First name	Roman			
Last name	Romashko)		
Position	Senior Re	esearcher		

ORGANISATION	DETAILS			
Organisation name	Institute of Automation and Contro	l Processes, Far	r Eastern Branch of Russ	. Acad. of Sci.
Street *	5, Radio			
ZIP * 690041	City * Vladivostok		Country *	Russia
Phone * +7-4232	2-555174	Fax	+7-4232-310452	
Email * romashk	ko@iacp.dvo.ru	Wel	b http://www.iacp.dvo.	.ru/
Employees	1-10	11 - 50	51 - 250	□ 250 +
Organisation type	I I Higher Education Institution	Research Institution	Industry SME	other
Department	Optoelectronics			
Short description of your company or organization	R&D projects (basic, applied and in fluid & gas dynamics, surface physic control systems, World Ocean & Ear	cs, information	n & computer science tec	

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials
quantum optics 🖂
2. Environmental research and cl matic change
biodiversity and ecophysiology of natural ecosystems 🔲
climate change in the artic and subartic regions 🔲
Material sciences connected with energy convergion and storage
3. Research on serious human health problems
viral infections: HIV and Hepatitis 🔲
auto-immune diseases





	TROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords) nanometrology, optical & fiber-optical sensors, holography, interf	erometry

PROJECT IDEA(S)	
Short description of project	Development of high-sensetive mesurement systems for ND inspection of novel materials and novel-materials-based structures.
Description of scientific expertise offered	laser physics, quantum electronics, optoelectronics, fiber & non-linear optics
Description of technical expertise offered	fiber-optical sensors & measurement systems, dynamic holography, digital holography, adaptive interferometry
Description of requested partner scientific expertise	optics & photonics
Description of requested partner technical expertise	MEMS, NEMS, NDT, laser ultrasound, photoacoustic imaging, bio-sensors
Potential partners (name, organisation, address)	Alexei Kamshilin, University of Eastern Finland (Kuopio, Finland); Nikolaos Vainos, National Hellenic Research Foundation (Athens, Greece); Optoinspection Oy (Joensuu, Finland); Karsten Buse, University of Bonn (Bonn, Germany)





Prof. Andrey Rudskoy

PARTICIPANT				
Gender	☐ Mr	☐ Ms	Title	Prof.
First name	Andrey			
Last name	Rudskoy			
Position	Prof. and	Vice-rector for research		

ORGANISATION DETAILS							
Organisation name St. Petersburg State Polytechnical University							
Street *	Polytechn	nicheskaya 29					
ZIP * 195251		City * St. Petersburg				Country *	Russia
Phone * +7 812 5	52 67 57, +7	812 552 9714		Fax	+7 812	552 9714	
Email * <u>vicer</u>	ector.sc@sp	bstu.ru		Web	http://w	ww.spbstu.ru	<u>ı/</u>
Employees	1-10		11 - 5	50	5 1	L - 250	2 50 +
Organisation type	Higher E	ducation Institution	Researd		Industry	SME	other
Department	Faculty of m	naterial science and techn	nology				
Short description of your company or organization	Materials science and new technologies are based on the fundamentals of physics, chemistry, mathematics and the theory of control. The Faculty scientists develop new promising materials and carry out researches in wide areas of materials science introducing new physicochemical methods; mathematical simulation of various technological processes; solution of new technologies ecological problems; elaboration of new technologies such as modern casting methods for industrial and art articles; unique methods of laser, plasma-arc and electron-beam welding, hardening and coating; production of powder, amorphous and optical materials as well as precision alloys with special properties and materials for electronic devices. The Faculty has established national and international partnerships almost in all spheres of its activities. The results of the theoretical studies find their practical applications in many branches of industry such as steelmaking plants, foundries, automobile factories or power plants. The Faculty has developed strategic partnerships with many regional businesses, for example Severstal, OMZ Special Steels, Federal state unitary enterprise Central research institute of structural materials "PROMETEY". The results of cooperation with businesses are published in the world-recognised magazines and academic journals and they are also presented during many						

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"			
Sub-topic of exercise			
Innovative materials and cutting edge technological processes			





ultrahigh-power laser sources Intelligent materials and nanomaterials Intelligent materials Intelligent materi
quantum optics
2. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
Areas of activity (<i>Free keywords</i>) nanostructure, nanomaterials, grain refinement, plastic deformation, numerical and physical modelling, ultra fine-grained steels, rolling, extrusion, forging, ECAP, ARB, FEM

PROJECT IDEA(S)	
Short description of project	The aim of the project is to investigate deformation and thermal-speed parameters of hot and cold plastic deformation providing nano-structured state of steel with grain size less than 300 nm and determine the possible using of these parameters at the rolling equipment of industrial plants. The test subjects are low-carbon micro alloyed steels, aluminium, magnesium and zirconium alloys, strength and mechanical properties of metals, metal structure. Task of the project: determine of hot and cold plastic deformation parameters providing nano-structured state of metals; production of nano-structured using Max-strain module of the test table Gleeble 3800 by Equal Channel Angular Pressing (ECAP), Accumulative Roll Bonding (ARB), hot and cold rolling, extrusion and forging; determination of mechanical properties of deformed nano-crystalline materials, computer modelling of investigated processes.
Description of scientific expertise offered	From the many years experience of our research team point of view both numerical modelling and range of investigated research are the chances for obtaining proper and interesting results. The confirmation of achieved purposes of earlier research, projects and grants are numerous publication achievement and many industry applications in range of investigated metal forming processes.
Description of technical expertise offered	New and modern scietific equipement: rolling mill, physical simulator Gleblee3800, nanohardness testing machine HYSITRON TI 750 UBI, many testing machines (Zwick), hydraulic presses, scanning electronic microscopes and computer software based on FEM.
Description of requested partner scientific expertise	Experience in research of ECAP and ARB processes and their numerical modelling. Three high-skew rolling process experience. Cold and hot rolling, extrusion and forging processes. Cold and hot metal forming of low-carbon micro alloyed steels, aluminium, magnesium and zirconium alloys
Description of requested partner technical expertise	Three high-skew rolling mill, equipment for cold and hot rolling, extrusion and forging processes.
Potential partners (name, organisation,	Prof. DrIng. Bernd-Arno Behrens, Institute of Metal Forming and Metal-Forming Machines, Leibniz Universität Hannover, An der Universität 2, 30823 Garbsen, Germany; Prof. DrIng. Rudolf Kawalla, Institute of Metal Forming, TU Bergakademie Freiberg, Bernhard-von-Cotta-Straße 4, Germany; Prof. Henrik Dyja Czestochowa University of Technology, 42-200,





address)	Dabrowskiego 69, Czestochowa, Poland; Prof. Sergey Ionov, Prof. Alexandr Zinoviev, National
·	University of Science and Technology "MISIS" (MISIS), 119049, Moscow, B-49, Leninsky
	prospect, 4, Russia;





Dr Alexander Savvichev

PARTICIPANT								
Gender	Х	☐ Ms		Title	Dr			
First name	Alexande	er		•				
Last name	Savvichev							
Position	scientific	associate						
ORGANISATION	DETAILS							
Organisation name	Winogradsk	y Institute of Microbiolog	y RAS					
Street * Pr. 60-Let	tiya Oktyabrya	a, 7-2						
ZIP *		City * Moscow			Countr	ry * F	Russia	
Phone * (499) 13	357977			Fax (49	9) 1356530			
Email * savvichev	<u>@mail.ru</u>			Web				
Employees	1-10		11 - 5	50	X		250 +	
Organisation type	Higher	Education Institution	X Researc		Industry SM	/ ИЕ	other	
Department	Russian Ac	eademy of Science						
Short description of your company or organization	of your company							
TOPICS OF INTE	EREST REGA	ARDING THE CALL IN '	"COLLA	BORATI	VE S&T PRO	OJEC	TS"	
Sub-topic of exerci	ise							
1. Innovative mate ultrahigh-power last intelligent materials quantum optics	er sources 🔲 and nanomate	ing edge technological pro	cesses					
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems								
climate change in the Material sciences c		partic regions $old X$ energy convergion and stora	ge 🔲					
3. Research on se viral infections: HIV auto-immune disea	and Hepatitis							





	FROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (Free keywords) Microbial processes of carbon and sulfur cycles in water column and se	ediments of
Arctic Seas	

PROJECT IDEA(S)	
Short description of project	Studying of activity of microbial processes of methane generation and oxidation in coastal water areas of the seas of Arctic regions. Revealing of the factors affect to a flux of methane to atmosphere of the Arctic region. The estimation of influence of organic matter production to rates of methane generation and oxidation. Participation in complex project researches in the seas of Arctic regions.
Description of scientific expertise offered	The applicant of the project together with scientists of laboratory of microbiology and biogeochemistry of water reservoirs Institute of microbiology of the Russian Academy of Sciences has an operational experience in Norwegian, Barents, Kara and Chukchi seas (1993 - 2010 years). Results of researches are published in scientific journals.
Description of technical expertise offered	The scientists of INMI RAS have abundant experience in the Russian American program on research of changes of a climate ("RUSALCA" program (The Joint Russian-American Longterm Census of the Arctic). Researches cover water area of Chukchi Sea and Bering Strait. Similar researches can be spent at Laptev Sea by the Russian and European scientists.
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Prof. Tina Treude, Leader of Group "Marine Geobiology". IFM-GEOMAR, Kiel, Germany, ttreude@ifm-geomar.de Dr. Ingeborg Bussmann Alfred Wegener Institut Meeresstation Helgoland Geb. C Germany Tel. 04725-819-3230 Fax 04725-819-3283 e-mail: ingeborg.bussmann@awi.de Dr. V. Bruchert, Dep. Of Geology and Geochemistry, Stockholm, Sweden





Dr Alexey Shevyakov

auto-immune diseases

PARTICIPANT					
Gender	* Mr	☐ Ms		Title	Dr.
First name	Alexey				
Last name Shevyakov					
Position	Director	of Institute of Social and	Economic	Studies	of the Population, RAS
ORGANISATIO	N DETAILS				
Organisation name	e Institute o	of Social and Economic St	tudies of th	ne Popula	ation, Russian Academy of Science
Street *	32 Nakh	imovskiy Prospekt			
ZIP * 11721	18	City * Moscow			Country * Russia
Phone * +7 095	125 7302			Fax	+7 095 129 0801
Email * shevya	nkov@isesp-ra	s.ru		Web	http://www.isesp-ras.ru/
Employees	1-10		11 - 5	50	***** \$\bigcirc\$ 51 - 250
Organisation type	Higher	Education Institution	***** Res Institution		Industry SME other
Department	Russian Ac	ademy of Science			
Short description of your company or organization	of your company Academy of Science (RAS), specialises in research concerned with the rundamental and theoretical problems of human capital development and potential, and in social problems within				
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLA	BORAT	IVE S&T PROJECTS"
Sub-topic of exerc	eise				
1. Innovative mate ultrahigh-power last intelligent materials quantum optics	ser sources 🔲 s and nanomate		cesses		
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage					
3. Research on serious human health problems viral infections: HIV and Hepatitis					





neurodegenerative diseases

4. Contemporary socio-economic studies

Social security systems and welfare state (in the context of globalization) *****
Labour, labour market, and employment *****

Transformation of the educational system ****

Areas of activity (*Free keywords*) human capital, labour, workforce, inequality, social security, welfare, transfer payments, unemployment, poverty, education, demography

PROJECT IDEA(S)	
Short description of	1. The analysis of the exact structure of government social transfers in Russia and of the profile of the typical recipient of these welfare transfers. An important focus of the study will be the analysis of the unfair availability of social transfers between population groups and the inequality that follows from it, and the subsequent evaluation of the efficiency that different social transfers have on the status of various population groups. The study will allow us to accurately evaluate the effects that social transfer payments have had on the dynamics of income poverty and inequality. In the framework of this analysis, additiona research will be carried out concerning the effects that the social environment (including such factors such as ecological) has on social policy, and how they affect government social security systems and welfare transfers efficiency.
project	 The international financial crisis resulted in an unequal workforce layoff between the different sectors of the economy. The project will carry out a detailed analysis of the labour market and workforce, specifically the dynamics of employment, workforce activity, and the creation of additional jobs in the economy. The research will provide the main priorities, goals, and practical mechanisms for the creation of modern, highly paid job positions in the economy, and suggested regulatory influence by the government required to alleviate the job market problems. We are planning to study the accessibility of higher professional education to different social
	and demographic groups of population under conditions of strong differentiation in the incomes of population and inequality in socio-economic development of the regions of contemporary Russia.
Description of scientific expertise offered	The institute is vastly experienced in research of social and economic problems and welfare state analysis, as well as in the evaluation of the quality of human capital potential and labour workforce. The institute is supported by the Russian State Scientific Fund and by different Russian Ministries (Ministry of Finance, Ministry of Economic Trade and Development, Ministry of Social Development, and otyhers), and numerous experience in working on research projects in this field, funded by said ministries.
Description of technical expertise offered	The projects involves and makes use of the command of modern methods of analysis and evaluation statistical and sociological data processing (regression and cluster analysis), as well as methods of mathematical modeling.
Description of requested partner scientific expertise	All requested partners of the institute have considerable expertise in their respective areas of research and a long history of cooperation with our institute.
	The researchers of the Institute and its partners use contemporary methods of qualitative and





Description of requested partner technical expertise	quantitive analysis, methods of statistical and mathematical modeling				
	1. Institut National d'Etudes Démographiques				
	133, boulevard Davout 75980 Paris Cédex 20 France; http://www.ined.fr/				
Potential partners	2. Tallinn Institute of Economy and Management of the Republic of Estonia				
(name,	Prof. Baranov Hanon. Erika 7a, 10416, Tallinn				
organisation,					
address)	3. Institute of Economics of Equal Opportunities and Cohesion				
	Prof. O.G. Racauskene. Kodas 300102079 Justiniškių g. 31–13, LT–05121 Vilnius, tel.: (8-				
	5)212				
	63 17, faks.: (8-5)212 63 17, el. paštas: <u>lgsei@lgsei.lt</u>				





Dr Andrey Shmakin

viral infections: HIV and Hepatitis

PARTICIPANT						
Gender	☐ Mr	☐ Ms		Title	Dr.	
First name	Andrey					
Last name	Shmakin					
Position	Head of I	Laboratory of Climatolog	y, Head of change"	Russian	NCP "Environment	and climate
ORGANISATION	NDETAILS					
Organisation name		of Geography, Russian Ac	ademy of	Sciences		
Street *		onetny 29				
ZIP * 11901		City * Moscow			Country *	Russia
Phone * (7-495))959-0032	1 2		Fax	(7-495)959-0033	
Email * info@i	igras.ru, ashm	akin@igras.ru		Web	http://igras.ru/	
Employees	1-10		11 - 5		51 - 250	2 50 +
Organisation type	Higher	Education Institution	X Research Institution		Industry SME	other
Department	Laboratory	of Climatology				
Short description of your company or organization	modern ch Research Research th during the	atory of Climatology of anges in climate and sno methods include hemes include: regional c last millennium; reaction of interaction between land	numerica limate char of snow	and their al mo nge in R cover an	impacts on environments of advance ussia and extreme c d vegetation to clin	nment and human life. d statistics, etc. limatic events now and
T			"Ca		C O T D	
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLA	BORAT.	IVE S& I PROJEC	CTS"
Sub-topic of exerc	eise					
Suc topic of energ						
1. Innovative materials intelligent materials quantum optics	ser sources and nanomate		cesses			
climate change in t	ophysiology of the artic and sul	natural ecosystems 🔲	nge 🔲			
3. Research on se	erious human l	nealth problems				





auto-immune diseases neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	It is planned to study the snow cover and permafrost changes in the Russian North under the contemporary and future climate change. The study will include analysis of regional climate change (mean and extreme variations), and local modeling of the snow-soil-vegetation system.
Description of scientific expertise offered	The team is experienced in advanced statistical analysis of the atmospheric processes (circulation mechanisms, frequency of snowfalls/thaws) and local numerical modeling of heat/water exchange on land, including water freezing/melting, snow transformations, etc.
Description of technical expertise offered	
Description of requested partner scientific expertise	We need partners experienced in downscaling of large-scale future climate projections, including sea ice characteristics, frequency of meteorological extremes, and scenarios for future migration of vegetation zones.
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Hadley Centre for Climate Prediction and Research (the UK Met Office) Laboratoire de Météorologie Dynamique du C.N.R.S. (France) Max Planck Institute for Meteorology (Hamburg, Germany)





Prof. Sergey Smagin

PARTICIPANT							
Gender	☐ Mr	☐ Ms		Title	Professor		
		IVIS		Title	110165501		
First name	Sergey						
Last name	Smagin						
Position	Director						
ORGANISATION	I DETAIL C						
Organisation name		g Center FEB RAS					
Street *		Yu Chena str.,					
ZIP * 68000	-	City * Khabarovsk			Country *	Russia	
	2-227267	1 - 1		Fax	+7-4212-227267		
	@as.khb.ru			Web	www.ccfebras.ru		
Employees	1-10		11 - 5	50	51 - 250	2 50 +	
Organisation type	Higher	Education Institution	Researc	ch	Industry SME	other	
Department	Laboratory	of Numerical Methods	in the Mathe	ematical	Physics		
Short description of your company or organization	of your company						
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"							
Sub-topic of exerc	ise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics 2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage							
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases							





	TROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	The physical properties of nanostructured materials (e.g. Ti and mesoporous SiO ₂) are interesting for technological applications, e.g., micro-electronic, optoelectronic, aerospace and automobile industries. This project is devoted to supercomputer quantum-mechanical computing of the influence of impurity ions on the atomic, electronic structures and elastic properties of Ti and SiO ₂ nanostructures. Therefore, it is interesting to study the effects of the doped oxygen atom on the agglomeration process of titanium clusters. The incorporation of active metals (e.g. Ti, Zr, Fe, Al et al.) into the structure of mesoporous silica makes them very valuable for catalytic applications. Ti is required to investigate the affect of the local environment of the metal center on the band gap. In addition, it is necessary to understand the effect of the doped metals on the interaction of carbon monoxide (CO), carbon dioxide (CO ₂) and methane (CH ₄) with the an mesoporous materials. In this work ab initio computing is based on the density functional theory and pseudopotential theory.
Description of scientific expertise offered	
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	University of Helsinki, Department of Physics, Finland PSIN CP234 Université Libre de Bruxelles Boulevard du Triomphe B-1050 Bruxelles Belgium





Dr Olga Solomina

auto-immune diseases

PARTICIPANT				1			
Gender	Mr Mr	Ms Ms		Title	Dr.		
First name	Olga						
Last name	Solomina						
Position	Deputy I	Director					
ORGANISATIO							
Organisation nam		of Geography Russian Aca	ademy of Sc	eiences			
Street *		netny, 29			T		
ZIP * 1190		City * Moscow	<u> </u>		Country *	Russia	
	125-90-11				+7 495 959-00-33		
Email * olgaso	lomina@yand	ex.ru	1	Web v	www.paleoglaciolog	gy.org	
Employees	1-10		11 - 50)	51 - 250	250 +	
Organisation type	Higher		Research Institution		ndustry SME	other	
Department	Glaciology	Glaciology					
Short description of your company or organization	comprises soil science ring, polle	The Institute of Geogpahy Russian Academy of Sciences (IGRAS) was established in 1918. It comprises 15 departments, including physical ans social geography, paleogeography, glaciology, soil science, biogeopgraphy, cartography, climatology, hydrology etc. Several laboratories (treering, pollen, 14C and electronic miroscopy) are functioning within IGRAS. IGRAS provides oportunities for PhD programms in fields listed above.					
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLAB	ORATI	VE S&T PROJEC	CTS"	
Sub-topic of exerc	cise						
1. Innovative mat ultrahigh-power last intelligent material quantum optics	ser sources and nanomate		cesses				
climate change in	cophysiology of the artic and sul	natural ecosystems 🔲	ige 🔲				
3. Research on se							





		PROGRAMME					
neurodegenerative diseases							
4. Contemporary socio-economic st	udies						
Social security systems and welfare sta	ate (in the context of globalization)						
	Labour, labour market, and employment						
Transformation of the educational system 🔲							
Areas of activity (Free keywords)	multi-proxy climate reconstructions, tree-ring analysis, densitomet and stable isotopes, moraine dating, lake sediments	try					
1		· ·					

PROJECT IDEA(S)	
Short description of project	To cope with the consequences of man-induced recent climatic warming demands reliable information regarding the natural climate variability, response of landscape, vegetation and ecosystems to climatic changes and its influences on the quality of human habitat is essential. It is necessary not only to obtain appropriate data sets from carefully selected key regions, but also to analyze these with modern methods. Climate history of the last c. 1000 years enables us to consider the man-induced changes in landscape during the last 150 years (Recent Global Warming) on the background of the Late Holocene natural climatic trends, particularly the "Medieval Climate Anomaly" (IX-XII centuries). In this project we will focus on the multi-proxy reconstructions in the tree key areas in the Northern European Russia: Kola peninsula, Solovetsky Archipelago, and Vologodsky region. We are going to use the multi-proxy approach to reconstruct the past climate variations and forest ecosystems dynamics sampling and analyzing living trees and sub-fossil wood (ring width, density and stable isotopes), as well as the lake sediments and glacial moraines in the Khibiny Mountains (14C, 10Be, lichenometry). The advantage of this multi-proxy approach consists in the opportunity to reconstruct different climatic parameters, forcing varies proxies in different ways and cross-check the reliability of individual reconstructions as soon as all these proxies are independent sources of paleoclimatic variability and to provide high resolution reliable regional climate reconstructions for the two subarctic and one taiga regions in the North of the European Russia underrepresented in the current network. The results of the project will be useful for the improvement of existing network of global climatic reconstructions and for further climate modeling experiments. They will provide us as well with means to assess anticipated dynamics of forest ecosystems under different climatic scenarios.
Description of scientific expertise offered	Our scientific expertise focuses on tree-ring dating of natural and historical events, tree-ring based paleoclimatic reconstructions, dating of moraines and reconstructions of glacier variations in the past. Recently we have included in our activity the study of lake sediments stratigraphy in order to obtain the climatic signal from these records as well (www.paleoglaciology.org).
Description of technical expertise offered	We can process tree-rings width and optical density measurements, cross-date samples and build chronologies. We have experts in pollen, diatoms, macro-fossils and radiocarbon analyses. We also have equipment and experts in lake sediment coring (Nesje' type borer), pollen and macrofossil analyses and GIS technologies.
Description of requested partner scientific expertise	For the success of this project we require partners with the scientific expertise in stable isotope analysis, cosmogenic isotope dating, the experts in lake sediments analyses, and those in the regional climate modeling.
Description of	The technical expertise lacking is stable isotopes in tree-rings, cosmogenic isotope dating, lake sediments geochemistry.





requested partner technical expertise	
Potential partners (name, organisation, address)	Dr. Tatjana Boettger UFZ, Helmholtz Centre for Environmental Research–UFZ, Department of Isotope Hydrology, Theodor-Lieser-Strasse 4, D-06120 Halle, Germany. phone +49 3345 5585 227 / fax +49 3345 5585 449 tatjana.boettger@ufz.de Dr. Michael Friedrich Institute of Botany (210), Hohenheim University, Garbenstrasse 30, D-70593 Stuttgart, Germany Tel. +49 (0)711 459-22196, Fax +49 (0)711 459-23355 Michael.Friedrich@uni-hohenheim.de Dr. Jomelli Vincent Laboratoire de Geographie Physique, CNRS, UMR 8591 1 place A. Briand 92195 Meudon, France Tel. 33 1 45 07 55 81, 33 4 67 83 95 41 jomelli@cnrs-bellevue.fr Dr. Ivan Kalugin and Dr. Andrey Darin
	Institute of geology and mineralogy RAS
	Kaptiuga, 3, 630090, Novosibirsk, Russsia Tel.: +7 (383) 333-26-00
	Fax: +7 (383) 333-27-92 ikalugin@uiggm.nsc.ru, avd@uiggm.nsc.ru





Dr Alexey Trofimov

PARTICIPANT							
Gender	☐ Mr	☐ Ms		Title	Dr.		
First name	Alexey						
Last name	Trofimov	V					
Position	Head of	the Research Laboratory	for Photo	- and Che	milum	inescence	
ORGANISATIO	N DETAILS						
Organisation name	e Emanuel	Institute of Biochemical F	hysics, R	ussian Aca	ademy	of Sciences	
Street *	ul. Kosygir	na, 4 processes				1	
ZIP * 119334		City * Moscow				Country * I	Russia
Phone * +7 (495)		+7 916 196-47-04	mob	Fax +7 (499) 1	374101	
Email * avt_2003	@mail.ru			Web			
Employees	1-10		11 - 5	50	5	1 - 250	250 +
Organisation type	Higher		Researd] ndustr	y SME	other
Department	Photocher	nistry and Photobiology					
Short description of your company or organization	of your company of your company conversion and storage						
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"							
Sub-topic of exercise							
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics							
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage							
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases							





neurodegenerative diseases	
4. Contemporary socio-economic stud Social security systems and welfare state Labour, labour market, and employment Transformation of the educational system	e (in the context of globalization)
Areas of activity (Free keywords) bioantioxidants;	Physical organic chemistry, photochemistry, chemiluminescence,

PROJECT IDEA(S)	
Short description of project	Conversion of chemical energy into light: Formation of "light depositories" in natural and synthetic materials
Description of scientific expertise offered	Chemistry of high-energy intermediates in organic processes;
Description of technical expertise offered	Developing the chemi- and bioluminescent approaches;
Description of requested partner scientific expertise	Organic chemistry; natural product chemistry;
Description of requested partner technical expertise	Methods of organic synthesis; preparative methods in natural product chemistry;
Potential partners (name, organisation, address)	Miscellaneous





Ms Elena Za	klyazmir	nskaya					
PARTICIPANT							
Gender	☐ Mr	☑ Ms		Title	M.D.	, PhD	
First name	Elena			•			
Last name	Zaklyazn	ninskaya					
Position	Head of	Medical Genetics Labora	atory				
ORGANISATION	N DETAILS						
Organisation name	Russian F	Research Centre of Surge	ery RAMS				
Street *	Street * 2, Abricosovsky per.						
ZIP * 11999	P * 119991 City * Moscow Country * Russian Federation						
Phone * +7 499 2485495 Fax +7 499 2485495							
Email * helenez	zak@gmail.co	<u>om</u>		Web	http://w	ww.med.ru/	
Employees	1-10		11 - 5	50	5 2	1 - 250	250 +
Organisation type	Higher	Education Institution	Researce Institution		ndustry	y SME	other
Department	Medical G	enetics Laboratory					
Short description of your company or organization	of your company neurodegenerative diseases, neurofibromatosis, cardiomyopathies, arrhithmogenic diseases ar				es for patients with mogenic diseases and		

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
Innovative materials and cutting edge technological processes
ultrahigh-power laser sources
intelligent materials and nanomaterials
quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems
viral infections: HIV and Hepatitis
auto-immune diseases





	PROGRAMME
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (<i>Free keywords</i>) Human genetics, DNA diagnostic, cell cultivation, medico-genetic co neuronal, cardiac diseases, transplantation and rejection.	unseling,

PROJECT IDEA(S)	
Short description of project	Genetic and functional analysis of ion channels and CHIPs in patients with neurodegenerative diseases
Description of scientific expertise offered	Molecular genetic analysis of individuals and population
Description of technical expertise offered	Sanger sequencing, PCR, PCR in Real-time
Description of requested partner scientific expertise	Functional analysis of mutations of genes of ion channels
Description of requested partner technical expertise	Cell culture, transfection, patch clamp
Potential partners (name, organisation, address)	Prof. Hugues Abriel, MD PhD Director, Department of Clinical Research Groupleader Ion Channel Research University of Bern Department of Clinical Research MEM H 821 Murtenstrasse 35 3010 Bern Switzerland Phone +41 31 632 09 28 Fax +41 31 632 09 46 E-Mail hugues.abriel@dkf.unibe.ch





Prof. Peter Zavialov

PARTICIPANT							
Gender Male	☐ Mr	☐ Ms		Title		Prof.	
First name	Peter						
Last name	Zavialov						
Position	Deputy D	Pirector					
ORGANISATIO	N DETAILS						
Organisation name	e P.P.Shirs	hov Institute of Oceano	logy				
Street *	36, Nak	himovsky Prospect Ave	•				
ZIP * 11799	97	City * Moscow				Country *	Russia
Phone * (7-499))-124-5994			Fax	(7-499))-124-5983	
Email * peter(aocean.ru			Web	www.o	cean.ru	
Employees	1-10		11 - 5	50	5 2	1 - 250	250 +
Organisation type	Higher	Halication Institution	Researe Researe Restitution	ch	Industry	y SME	other
Department	Physical O	ceanography					
Short description of your company or organization	The largest Russian institute in the field of oceanography focused on interdisciplinary research of the ocean and the inland seas						
TOPICS OF INT	EREST REGA	RDING THE CALL IN	"COLLA	BORAT	TIVE S&	&T Projec	CTS"
Sub-topic of exerc							
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics 2. Environmental research and cl matic change							
biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage							
3. Research on serious human health problems viral infections: HIV and Hepatitis							





	PROGRAMINE
auto-immune diseases	
neurodegenerative diseases	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords) Oceanography, Marine ecosystems, Climate change, Anthropogen	nic impacts,
Continental discharges	

PROJECT IDEA(S)	
Short description of project	An interdisciplinary study of impacts of climate change and anthropogenic pressures on marine ecosystems based on historical and recent in situ data and modeling. Emphasis will be made on the seas of Russia, especially in the Arctic, and the regions of freshwater influence exposed to river discharges
Description of scientific expertise offered	The Institute has a longstanding experience of physical, biological, and other relevant oceanographic research of the seas washing Russia, as well as the World ocean. We have in possession vast data bases on the Russian seas.
Description of technical expertise offered	The Institute operates a fleet of several research vessels equipped with state-of-the-art instruments for oceanographic research. A few teams of the Institute have been involved in collaborative international projects, including at least 3 projects within EU FP7.
Description of requested partner scientific expertise	We are open for a joint effort with any Partner institution whose research interests are relevant to the scope described above.
Description of requested partner technical expertise	_"_
Potential partners (name, organisation, address)	Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany. Geoforschung Zentrum, Potsdam, Germany. University of Girona, Spain. Brunnel University,London, UK.





<u>Spain</u>

Dr. Felix Javier Barrio de Migue

PARTICIPANT						
Gender	x Mr	☐ Ms		Title	Dr	
First name	Felix Javier					
Last name	Barrio de	Miguel				
Position	Head of t	he International relations	and Coope	eration		
ORGANISATIO						
Organisation name		(Center for Energy, Envir	ronment a	nd Techn	ology Research)	
Street *		Complutense 22,				
ZIP * 28040		City * Madrid			Country *	Spain
	3466004			Fax	+34 91 3466082	
Email * felix.b	arrio@ciemat.	es		Web	www.ciemat.es	T
Employees	1-10		11 - 5	50	51 - 250	x [□] 250 +
Organisation type	Higher		Researd Restitution		Industry SME	other
Department	Internation	al Relations And Coopera	tion			
Short description of your company or organization CIEMAT is a Spanish public Research Centre, attached to the Ministry of Science and Innovation. The areas of research cover Energy, Environmental matters, several fields of technological development and some fields of Basic Science research. Especially significant is the role in basic and technological research in renewable energies, with emphasis to the broad exploitation of Concentration Solar Power, where we have one of the most significant installations all over the world, The Solar Platform of Almería.					ields of technological cant is the role in basic broad exploitation of	
TOPICS OF INT	EREST REGA	ARDING THE CALL IN	"COLLA	BORAT	IVE S&T PROJEC	CTS"
Sub-topic of exercise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics						
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						





3. Research on serious human health p viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases	problems
4. Contemporary socio-economic studi Social security systems and welfare state Labour, labour market, and employment Transformation of the educational system	(in the context of globalization)
Areas of activity (Free keywords)	Energy and materials

PROJECT IDEA(S)	
Short description of project	Development of cost effective thermal storage systems for CSP. The motivation is basically to reduce the high costs in existing systems.
	Analysis of the different CSP technologies and definition of their specific requirements concerning thermal storage (temperatures, pressures, sensible or latent heat,). Development of improved thermal storage systems
Description of scientific expertise offered	Ciemat has an important group (more than 100) of scientist working in different aspects of the Concentrated Solar Power systems including the thermal storage.
Description of technical expertise offered	Ciemat has one of the best installations in the world for that studies, the solar platform of Almería. A facility with more than 150 workers where all technologies related to this issue are presented.
Description of requested partner	Knowledge in of different thermochemical reactions to be used in thermochemical storage systems.
scientific expertise	Knowledge for the Development of reactor concepts and designs
Description of	Development of reactor concepts and designs
Description of requested partner technical expertise	Study and definition of optimum operation of the whole plant to optimize the integration into the grid and the electricity production, taking into consideration a possible hybridization with biomass.
Potential partners (name, organisation, address)	UPC (Spain), CIEMAT (Spain), TECNALIA (Spain)





Prof. Vina

PARTICIPANT						
Gender	🖸 Mr	☑ Ms		Title	Prof.	
First name	Luis					
Last name	Vina					
Position	Full Prof	essor of Condensed Matte	er Physcis			
ORGANISATION	DETAILS					
Organisation name		lad Autónoma de Madrid				
	s y Valiente	7 (Facultad de Ciencias, C	24-507)		,	
ZIP *E28034		City *Madrid		,	Country	*Spain
Phone *+3491497					914978579	
Email *luis.vina@	uam.es			Web http	p://www.uam.es/	ultrafast
Employees	1-10		11 - 5	50	51 - 250	2 50 +
Organisation type	Higher		Resear Institution		Industry SME	other
Department	Física de M	lateriales				
Short description of your company or organization	your company Public University					
TOPICS OF INTI	EREST REGA	ARDING THE CALL IN	"COLLA	BORATI	VE S&T PROJ	JECTS"
Sub-topic of exercise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics						
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases						





4. Contemporary socio-economic stu Social security systems and welfare sta Labour, labour market, and employmen Transformation of the educational syste	te (in the context of globalization) t
Areas of activity (Free keywords) ultrafast processes of carriers	Quantum information, quantum optics, semiconductor physics, spectroscopy,

PROJECT IDEA(S)	
Short description of project	Semiconductor nanostructures for quantum optics and quantum information
Description of scientific expertise offered	Group with more than 20 years of experience on electronic properties of semiconductor nanostructures, formed by three subgroups: cw-spectroscopy, time-resolved spectroscopy and theory of condensed matter physics
Description of technical expertise offered	Spectroscopy and advanced techniques of quantum optics as well as computational capabilities to perform simulations
Description of requested partner scientific expertise	Complementary to those offered, with special interest on nanostructures growth and patterning. Also complementary characterization techniques
Description of requested partner technical expertise	Same as above
Potential partners (name, organisation, address)	Ioffe Institut (St. Petersburg), Institut For Solid State Physics, RAS (Chernogolokva), Institute of Semiconductor Physics (Novosibirsk)





Switzerland

Dr Christoph Glauser

PARTICIPANT						
Gender	Mr X	☐ Ms		Title	Dr.	
First name	Glauser					
Last name	Christoph					
Position	Director					
ORGANISATION	DETAILS					
Organisation name		for applied argumentation	research IF.	AAR		
Street *	Mülinen	strasse 3				
ZIP * 3006		City * Berne			Country *	СН
	1 351 02 20				++41 31 351 04 84	
Email *				Web		_
Employees	1-10		11 - 50) _X	51 - 250	250 +
Organisation type	X Higher F		Research		ndustry SME	other
Department	Computer	Science				
Short description of your company or organization	eGovernan developing websites. A engines, e counterpart Christoph world-wide The IFAAI colleges of offers basic IFAAR has variety of evaluation in three di IFAAR, was Research C of research 2.2 – Inforidentity; 6	a co-operative society ce- and web-Research. Society ce- and web-Research. Society ce- and web-Research. Society ce- and web-Research. Society computer-based systems Additionally, the IFAAR Government, web research to search engines. Foun Glauser, the IFAAR and eleading in digital contents Robert does research for nation Robert education, NGOs coresearch and evaluation acquired considerable extensive and complex skills are simultaneously fferent languages In October 1988 (JRC), Seville. The contre (JRC), Seville. The contre (JRC) communication and communication and communication and communication and communication of technical control of technical cont	for digital of conducts arch, websited in 1994 of the research analysis. In all and interest and NPOstompetencial engovernment taught to study ber 2007 the list of series and technologicy (including digital engoration).	the privace content a scientific te analy by the process of the process of the interview process been accepted to gies — Jong huma	ate non-profit research in the basic researc	arch institute has been news, web content and in the field of search find engines, seen as ad media researcher Dr. and at the IFAAR are nistrations, universities, public campaigns and ment and eGovernance. In managing a projects. Most of the versities in Switzerland gumentation Research, pean Commission Joint for the following fields applications in Europe; D. Cyber security and iversities): analysis and

of sustainable development, including structural unemployment. IFAAR is actually leading an





international project funded by the Swiss National Science Foundation SNSF together with the Swis Federal Institute of Technology in Lausanne and with Lomonosov University in Moscow. For more information on IFAAR experiences see www.ifaa.ch/en/conferences.html

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (Free keywords) e-Governance, evaluation of public administrations (PA)

PROJECT IDEA(S)	
Short description of project	Systematic comparative e-Governance benchmarks for Russia and Europe
Description of scientific expertise offered	IFAAR runs an European network of 30 Universities in 27 countries. Its expertise is basically to measure fair benchmarks in e-Governance in all European languages including Russian.
Description of technical expertise offered	The institute has a long term experience in measuring and assessing e-Governance activities of all kind. It is running it's own systems for computer based content analysis and is constantly developing new tools for measuring the online activities of governments and PA's.





Description of requested partner scientific expertise	From several earlier STREP projects IFAAR maintains an exhaustive experts network covering whole Europe. Dr. Glauser from IFAAR has also been appointed as a judge by the European Commission for the EU e-Government Award 2009. From the ongoing SNSF project it also cooperates with EPFL and with University of Moscow (Lomonosov).
Description of requested partner technical expertise	The experts for software engineering are partly available at IFAAR but external partners also provide tools and expertise to the projects depending on the specific needs and skills.
Potential partners (name, organisation, address)	The list of partners will be depending on the projects scope and on the choice of countries under survey. It will be provided in a final version of a proposal.





Dr Mikhailov Serguei

D						
PARTICIPANT						
Gender	☐ Mr	Ms Ms		Title	Dr.	
First name	Mikhailo	V				
Last name	Serguei					
Position	CEO of s	tart-up Creepservice Sarl	l, Professor	HES SC)	
ORGANISATION						
Organisation name						
Street *	Sentier o	lu Ministre 22				
ZIP * 2014		City * Bole			Country * S	Switzerland
Phone * +41329	930145			Fax	+41329302930	
Email * sergue	i@net2000.ch			Web	www.creepservice.c	om
Employees	1-10		11 - 5	50	51 - 250	250 +
Organisation type	Higher	Education Institution	Researce Institution		Industry SME	other
Department						
Short description of your company or organization	of your company Manufacturing of machine for surface treatment					
TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"						
Sub-topic of exerc	ise					
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics intelligent materials and nanomaterials quantum optics intelligent materials and climate change biodiversity and ecophysiology of natural ecosystems intelligent materials and subartic regions intelligent materials and subartic regions intelligent materials and cutting edge technological processes 2. Environmental research and climatic change biodiversity and ecophysiology of natural ecosystems intelligent materials and cutting edge technological processes 2. Environmental research and climatic change biodiversity and ecophysiology of natural ecosystems intelligent materials intelligent mat						
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases						





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neurodegenerative diseases	
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment	
Transformation of the educational system	
Areas of activity (Free keywords)	

PROJECT IDEA(S)	
Short description of project	Development of new methods and technologies for surface treatment and functionalisation, including ion beam and plasma technologies. Industrial application: selflubricationg coatings, biocompatibility
Description of scientific expertise offered	Material and surface sciences.
Description of technical expertise offered	Machine building in the field of surface treatment, ion and plasma treatment
Description of requested partner scientific expertise	Material and surface sciences.
Description of requested partner technical expertise	Machine building
Potential partners (name, organisation, address)	Sverdlovsk University





<u>Turkey</u>

Mr Turgay Dalkara

PARTICIPANT						
Gender	X	□ Ms		Title	MD, PhD	
First name	Turgay			•		
Last name	Dalkara					
Position	Professor					
ORGANISATION	N DETAILS					
Organisation name	Hacettepe	University, Institute of N	Veurologic	al Science	ces and Psychiatry	
Street *	Sihhiye					
ZIP * 06100	1	City * Ankara			Country *	Turkey
Phone * 90 (312	2) 305 2620			Fax	90 (312) 309 3451	
Email * tdalkar	a@hacettepe.e	edu.tr		Web	http://www.norbil.ha	acettepe.edu.tr/
Employees	1-10		X		51 - 250	250 +
Organisation type	XHigher E	diiontion Institution =	X Research Institution	h	Industry SME	other
Department						
Short description of your company or organization	of your company of your company Sciences and Psychiatry is composed of 3 departments organized in 16 work groups covering					
					 -	
TOPICS OF INTI	EREST REGA	ARDING THE CALL IN	"COLLA	BORAT	TIVE S&T PROJEC	CTS"
Sub-topic of exercise						
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics						
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage						
3. Research on serious human health problems						





viral infections: HIV and Hepatitis					
auto-immune diseases 🔲					
neurodegenerative diseases X					
4. Contemporary socio-economic studies					
Social security systems and welfare state	Social security systems and welfare state (in the context of globalization)				
Labour, labour market, and employment					
Transformation of the educational system					
	_				
Areas of activity (Free keywords)	Cerebral ischemia, cell death, migraine, blood-brain barrier				
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PROJECT IDEA(S)	
Short description of project	Basic mechanisms of ischemic cell death and migraine. Neuroprotection and anti-migraine treatments
Description of scientific expertise offered	Organization and infrastructure for translation of basic laboratory findings to clinic
Description of technical expertise offered	Animal models of stroke and migraine.
Description of requested partner scientific expertise	Cutting edge imaging techniques
Description of requested partner technical expertise	Optogenetics, novel fluorescent probes
Potential partners (name, organisation, address)	





Prof. Dr. Umit Erdem

PARTICIPANT			
Gender	$\mathbf{X}^{\square Mr}$	☐ Ms	Title Prof. Dr.
First name	Umit		
Last name	ERDEM		
Position	Director of	Ege University Centre For Environme	ental Studies

ORGANISATION DETAILS						
Organisation name Ege University						
Street * Eg	e University	Campus				
ZIP * 35100				Bornova		
Phone * + 90 232	23112975 - +	90 5323372054		Fax	+90 232 3885952	
Email * umit.erd	lem@ege.edu	ı.tr		Web	http://www.cevreme	erkezi.ege.edu.tr/
Employees	1 -10		11 - 9	50	51 - 250	X 250 +
Organisation type	Higher Education Institution Research Institution Industry SME other			other		
Department	Centre For	Environmental Studies				
Short description of your company or organization						





To support studies on environmental studies publishing, accelerating, share knowledge, informing the public and to do this, establishing educational programs, organizing seminars, courses, conferences, publications and certificating the attendants,

To give education and training, to organize exchanges of scholars within related fields both from abroad and to.

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"
Sub-topic of exercise
1. Innovative materials and cutting edge technological processes ultrahigh-power laser sources intelligent materials and nanomaterials quantum optics
2. Environmental research and cl matic change biodiversity and ecophysiology of natural ecosystems climate change in the artic and subartic regions Material sciences connected with energy convergion and storage ■
3. Research on serious human health problems viral infections: HIV and Hepatitis auto-immune diseases neurodegenerative diseases
4. Contemporary socio-economic studies Social security systems and welfare state (in the context of globalization) Labour, labour market, and employment Transformation of the educational system
Areas of activity (Free keywords)

PROJECT IDEA(S)

Proposed Project Title

Interactions of Tourism, Agriculture and Biodiversity Within the Coastal Zone Management

Summary

Short description of project

Favorable biophysical and climatic conditions, together with the ease of communication and navigation frequently offered by coastal sites, have attracted human activities in coastal areas since prehistoric times. Presently about 40% of the world's population lives within 100 kilometers of the coasts. As population density and economic activity in the coastal zone increases, pressures on coastal ecosystems increase. Land use /land cover changes can be showed one of the most important pressures on coastal ecosystems and this pressure can lead to loss of biodiversity.

Main objectives of the study are;

• To determine land-cover transition rates and location because of tourism and agriculture





To determine affects on and interactions these land use and cover changes with biodiversity. To project alternative future interactions. RESEARCH PROJECTS CARRIED BY EGE UNIVERSITY CENTRE FOR ENVIRONMENTAL STUDIES "AIR QUALITY AND URBAN DEVELOPMENT IN IZMIR-BORNOVA Duration: 1996-1999 Financial Source: Volkswagen Foundation Scientific Coordinator: H. G. BARTH Partners: Hannover University & Stuttgart University & Dokuz Eylul University & Ege University "IMPROVEMENT OF URBAN HABITAT: URBAN FORESTRY/GREENING MASTER PLAN FOR KARSIYAKA MUNICIPALITY, IZMIR-MASTER PLAN AND STRATEGY" Project No:TUR/97/008/A/01/12 Duration: 1999-2001 Financial Source: UNDP-Republic of Turkey Government Project Partners: Karsıyaka Municipality & Ege University "AGRICULTURE AND URBANIZATION IN THE MEDITERRANEAN REGION: ENABLING POLICIES FOR SUSTAINABLE USE OF SOIL AND WATER" Financial Source: European Commission INCO-DC (Dg XII) Scientific Coordinator: Dino BORRI, Contractor: CIHEAM-IAMB Partners: Polytechnic of Bari & Ege University for 2nd International Meeting, 2001. Description of "PLANT COVER S AND LAND DEGRADATION RELATIONSHIP ON AEGEAN scientific expertise COASTAL ZONE" offered Duration: 2001-2003 Financial Source: CIHEAM-MAICh Partners: CIHEAM-MAICh & Ege University & Aristotle University,(continued.) "MICROORGANISMS, PATHOGENS AND SUGGESTED STANDARDS IN VARIOUS WATERS" Duration: 1997-1999 Financial Source: Ege University Research Fund "SEARCHES FOR Yersinia enterocolitica and Aeromonas hydrophila IN PART OF IZMIR TOP WATER DISTRIBUTION NETWORK FED BY SOUTHERN SPRINGS" Duration: 1998-2001 Financial Source: Ege University Research Fund "THE EXAMINATION OF THE EFFECT OF SEVERAL POLYMERS ON MECHANICAL DEWATERING OF ATATÜRK INDUSTRIAL AREA S WASTEWATER TREATMENT SLUDGES AND FILTER DESIGN" Duration: 2000-2001 Financial Source: Ege University Research Fund

"RESEARCHES ON ENVIRONMENTAL CHANGES IN THE CASE STUDY AREA OF EGLENHOCA VILLAGE, OVACIK QUARTER IN KARABURUN PENINSULA"

Duration: 2000-2002





Financial Source: Ege University Research Fund

"EFFECTS OF SEA TRAFFIC ON KUŞADASI COASTAL ECOSYSTEM"

Duration: 2001-2004

Financial Source: Ege University Research Fund

"INVESTIGATION ON IMPACTS OF COASTAL CAGE AQUACULTURE TO AQUATIC

ENVIRONMENTAL IN SIĞACIK (SEFERIHISAR-IZMIR) REGION",

Duration: 2002-2004

Financial Source: Ege University Research Fund

"INVESTIGATION OF RADIOSEZIUM LEVELS IN COASTAL AND AGRICULTURAL

AREAS IN AEGEAN REGION"

Duration: 2002-2005

Financial Source: Ege University Research Fund

"OCEANOGRAPHIC RESEARCH AT ÇEŞME FISHERMAN S REFUGE AND ITS

IMMEDIATE SURROUNDINGS"

Duration: 2002-2006

Financial Source: Ege University Research Fund

"LAND USE DECISIONS WITHIN TOURISM AND RELATION BETWEEN TOURISM

POTENTIAL AND COASTAL ECOSYSTEM ON ÇEŞME PENINSULA"

Duration: 2002-2006

Financial Source: Ege University Research Fund

"THE STUDY OF PRODUCTION OF ACTIVATED CARBONS FROM THE SOLID

WASTES GENERATED BY LEATHER INDUSTRY"

Duration: 2003-2005

Financial Source: Ege University Research Fund

"RESEARCH OF ANIONIC DETERGENT LEVELS IN IZMIR BAY"

Duration: 2004-2006

Financial Source: Ege University Research Fund

"POTENTIAL OF VEGETABLE FRUIT WASTES OF MARKETS IN BORNOVA DISTRICT

OF IZMIR PROVINCE AS ANIMAL FEED"

Duration: 2007-2008

Financial Source: Ege University Research Fund

""UTILIZATION OF PRODUCTS OBTAINED FROM COPYROLOSIS OF OIL SHALE

AND PLASTIC"
Duration: 2008-2009

Financial Source: Ege University Research Fund

LABORATORY FACILITIES OF EGE UNIVERSITY CENTRE FOR ENVIRONMENTAL STUDIES

Description of technical expertise offered

Within our body there are determiners and analysers for air (dissolved oxygen meter, pH/ISE meter, conductivity TDS meter, SO2 analyser, etc.) water (B.O.D tools, BOD incubator, etc.) and noise pollutions (noise determiner).

In environmental planning, GIS (Geographical Information Systems), remote sensing and





	modelling of land use/land cover changes softwares are being used. In our computer lab which is being expanded by international projects, Geo Media Professional 5.1, Image Analyst, Arc Info 9.3.1, are being used for analysing works.
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	





Dr. Seval Korkmaz

PARTICIPANT			
Gender	□ Mr	X Ms	Title Dr
First name	Seval		
Last name	Korkmaz		
Position	Cell Cultu	are and In Vitro Screening Supervisor	

ORGANISATION DETAILS				
Organisation name Abdi Ibrahim Ilac A.S.				
Street * Hosdere Mevkii Tunc Cd. No:3 Esenyurt				
ZIP * 34555	City * Istanbul			
Phone * 90 212 6	5226850	Fax 90	212 6231952	
Email * seval.ko	orkmaz@abdiibrahim.com.tr	Web ww	w.abdiibrahim.co	om.tr
Employees	1-10	11 - 50	3 51 - 250	x [□] 250 +
Organisation type	I I Higher Education Institution =	Research Industritution	ustry SME	other
Department	R&D Center			
Short description of your company or organization	Country : Turkey Founded : 1912 Number of Employees: 3300 State of Ownership : Private Corporate description/mission Abdi Ibrahim (AI) Pharmaceuticals is most established Turkish Pharmaceutical Company with almost 100 years of tradition. From 2003 onwards, Abdi Ibrahim Pharmaceuticals is the leader of the pharmaceutical sector in Turkey in terms of annual turnover (850 million USD in 2010) and the number of boxes sold (> 130 million) with a market share of 7.6 percent in Turkey. Additionally Abdi Ibrahim also exports its products to 15 countries. Abdi Ibrahim is the first and the only Turkish Company, which is amongst the top 100 Pharmaceuticals Company in the world according to the IMS Data. Our aim is to enlarge our current global presence and to continue the growth above the market average – domestic and international. AI currently work almost 40 licensors worldwide with long and established win-win business relationships. We also have in-house developed generics that consist of 40% of company's sales value. In total, we are marketing 150 brands with 250 preparations.		maceuticals is the 850 million USD in 7.6 percent in 8. the top 100 m is to enlarge our ge – domestic and	





AI present in all major therapeutic areas such as; Respiratory, CNS, Muscle-Skeletal, Alimentary and Track Metabolism and Blood & Blood forming organs and growing well in Gastro-intestinal and we aim to strengthen our portfolio in the areas of Oncology, Metabolism/ Endocrinology and Anti-InfectiveS. AI has the highest share of voice with a field force size of > 2.000 sales reps, trained to detail to specialist doctors.

Abdi İbrahim recognizes its R&D capabilities as a vital component of its business strategy that will provide the country as sustainable, long-term competitive advantage. The R&D center is the first stand alone R&D center in Turkish Pharmaceutical Industry accredited by the Ministry of Industry and Trade. 125 scientists from different scientific diciplines have been worked at R&D department of AI.

Internationally we have subsidiaries in Algeria (where we are amongst the top 10 companies), Russia, Kazakhstan, Ukraine, Azerbaijan and Georgia.

OUR VISION: Growing faster than the market, continue to be a preferred and respected company in Turkey and become a Global Player.

OUR MISSION: Strive continuously for a better quality of human life. Be at the service of medica science, humanity.

Abdi Ibrahim Pharmaceuticals is fully committed to satisfy its licensors and partners requests. We are experienced with different partnering models and seek for the best solution to reach a mutual benefit based on a long-term commitment. Our special interest is in In-licensing opportunity for the Turkish territory where we can use our strong position and Marketing experience for rapid penetration as well as for the markets, we are present. Other partnerships like Co-development proposals and Toll manufacturing opportunities are welcome.

Some of our current licensors are:

Allergan, Dompe, Farmaceutici Damor, Dentinox, Gifrer, Grünenthal, HRA Pharma, Italfarmaco, LEO Pharma, LGLS, Madaus, Medinova, Meiji, Molteni, Nycomed, OM Pharma, Orion, Otsuka, Pfizer, Pharmavite, Reckitt Benckiser, , Roha, Rottapharm, Dr. Willmar Schwabe, Seven Seas Healthcare, UPSA Laboratories, Uriach, Vifor

TOPICS OF INTEREST REGARDING THE CALL IN "COLLABORATIVE S&T PROJECTS"	
Sub-topic of exercise	
Innovative materials and cutting edge technological processes	
ultrahigh-power laser sources	
intelligent materials and nanomaterials	
quantum optics	
2. Environmental research and cl matic change	
biodiversity and ecophysiology of natural ecosystems	
climate change in the artic and subartic regions	
Material sciences connected with energy convergion and storage	
3. Research on serious human health problems	
viral infections: HIV and Hepatitis	





	PROGRAMIME
auto-immune diseases	
neurodegenerative diseases 🗵	
4. Contemporary socio-economic studies	
Social security systems and welfare state (in the context of globalization)	
Labour, labour market, and employment 🔲	
Transformation of the educational system	
Areas of activity (Free keywords) Neurodegenerative Diseases, QSAR, Docking, High-throughput S	
Multi-targeted Drug Design, In silico Screening, In Vitro Screening, computer-aided drug design, intesting	nal
permeability, blood-brain barrier	

PROJECT IDEA(S)	
Short description of project	Alzheimer's disease (AD) is the most common neurodegenerative disorder affecting around 15 million people worldwide. Because of the increase in life expectancy already for 2020, the number of cases will rise to about 30 million people worldwide. A sufficient amount of evidence suggests, for example, that antioxidants from the diet can influence the occurrence of neurodegenerative disorders such as AD and Parkinson's disease (PD). In particular, the antioxidant flavanols- catechins have shown great promise. Previous studies have shown that the polyphenol (-)-epi-gallocatechine gallate (EGCG), found in large amounts in green tea, has neuroprotective effects by its properties such as antiamyloidogenic, ion chelating, antioxidant, antiinflamatory, esterases inhibitory, COX inhibitory and its modulatory effects on TAU proteins and several different intracellular mechanisms. In current project it is planned that EGCG structure based new therapeutic group can be designed by in silico methods, synthesized and their effects on Alzheimer mechanisms can be tested by in vitro drug screening methods. Intestinal and blood-brain barrier permeability studies of new synthesized drug candidates will be exerted by in vitro techniques. During the project, in silico methods (QSAR, docking, PASS), synthesis of new molecules and in vitro drug screening methods on neuroprotective/ anti-Alzheimer group can be obtained or at least effectiveness of subtitutions can be better identified at the end of current project. According to our data we will haveobtained at the endof this project, further in vivo and clinical studies will be planned as an other project. Approximately 10.000 new designed molecules will be search and about 50-100 molecules will be synthesized and their in vitro pharmacological effects will be evaluated.
Description of scientific expertise offered	Collaborators of this project should be experienced on those fields; Computer-aided drug design QSAR (Qantitative Structure activity relationship) expertise Expertises for docking: Neuroprotectivemechanisms (like, beta-Amyloid, esterases, BACE, MAO) In silico high-throughput screeing of new designed drug candidates Expertises for PASS (Prediction of biological activity spectra for substances) Pharmaceutical Chemists for synthesis of new molecules Synthesis of neuroprotective drugs High- throughput cell culture methods of neuroprotective mechanisms Expertises for intestinal and blood-brain barrier permeability
Description of	Some technicians who is experienced on scientific details of this project will be employed.





technical expertise offered	
Description of requested partner scientific expertise	Especially it will be needed who works on docking of specific mechanisms of Alzheimer Diseases
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	 Dr. Seval Korkmaz (Abdi Ibrahim Pharmaceuticals, Istanbul, Turkey) Prof. Dr. Anatoli Dimoglo (Gebze Institute of Technology, TURKEY) Assoc. Prof. Dr. Athina Geronikaki (Aristotle University of Thessaloniki, GREECE) Prof. Dr. Bachurin (Russian Academy of Science, RUSSIA) Dr. Fliur Macaev, (Institute of Chemistry, Academy of Sciences, MOLDOVA) Assoc. Prof. Dr. Maria Laura Bolognesi (Bologna University Fac. Of Pharmacy, Department of Pharmaceutical Chemistry) Dr. Manfred Windisch (JSW Life Sciences, Graz, AUSTRIA) Prof. Dr. Romeo Cecchelli (Artois University, FRANCE) Dr. Seval Korkmaz (Abdi Ibrahim Ilac, TURKEY)