

EXPERTS' PROFILES BROCHURE

Innovation Projects

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Germany

M.A. Helene Olesja Betuch

Dr. Michael Bunge

Dr. Michael Fedorov

Mr. Jürgen Fehmer

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Prof. Mikhail Ignatev

Prof. Vladimir Katanaev

Dipl. Ing. Siegfried Kraus

Dr. rer.nat Dieter Peschen

Prof. Dr. Uwe Pfüller

Prof. Peter Schwarz

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MBA Elena Wenzler

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PARTICIPANT						
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Position	Research F	ellow				
ORGANISATION DETAILS						
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ORGANISATION DET	ΓAILS						
Organisation name	Organisation name Fraunhofer Center for Central and Eastern Europe MOEZ						
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Employees	1-10	11 -	50 51 - 250		250 +		
Organisation type	Higher E Institution	⊠ Re Institu	esearch ution	[Company	other	
Department	Innovative '	Transfer System	ıs				
Short description of your company or organization	The Fraunhofer Center for Central and Eastern Europe (MOEZ) is the strategic partner of industry, research, and politics for networking and collaborations with policy makers in Central and Eastern European growth markets. As experts for innovation and network management, strategy						

TOPICS OF INTERES	T REGARDING THE CA	ALL FOR "INNOVATI	ON PROJECTS"		
Sub-topic of	ICT	Materials	Health	Environment and Climate	Production Technologies
expertise	Biotechnology	Energy	Space	Transport	Optical Technologies







Other (Free keyword	s)			

PROJECT IDEA(S)	
PROJECT IDEA(S)	
Short description of project	Value creation of capabilities of German and Russian knowledge and technology transfer organizations. The main goal is to develop approaches for the strategic S&T cooperation in the areas of environment and sustainability (eco-innovations).
Description of scientific expertise offered	Our interdisciplinary team links business, policy, and social science know-how together with distinctive regional expertise regarding Central and Eastern Europe. These skills provide the foundation for our continual analysis of markets and innovation systems in Central and Eastern Europe thus creating a reliable basis of information concerning these dynamically developing economic regions. We analyze national and — with a special focus on Central and Eastern Europe — transnational transfer strategies and systems as well as their specific implementation particularly in the areas of environmental technologies and sustainability from an economic and political science perspective. In this process, we develop innovative, effective, and efficient transfer systems on the basis of the latest findings.
Description of technical expertise offered	
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
Potential partners (name, organisation, address)	Kazan (Volga region) Federal University, Hochschule Harz und Universität Leipzig.







PARTICIPANT									
Gender	🔲 Mr	<u>□</u>	s	Title	Dr.				
First name	Michael	1ichael							
Last name	t name Bunge								
Position	Senior Scie	ntist							
ORGANISATION DI	TAILS								
Organisation name	e University	of Gie	essen						
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Employees	1 -10		11 - 50)	5	1 - 250	2 50 +		
Organisation type	⊠Higher I Institution	Educati	on	⊠ R Instit	esearch ution	l	Company	other	
Department			ed Microbiol or BioSyste	- .	d Use,	and Nutritio	n (IFZ)		
Short description of your company or organization	University								
TOPICS OF INTERES	ST REGARDING	THE C	ALL FOR "II	NNOVA	TION P	ROJECTS"			
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TOPICS OF INTERES	T REGARDING THE CA	ALL FOR "INNOVATI	ON PROJECTS"		
Sub-topic of expertise	ICT Biotechnology	⊠ Materials □ Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keyword	(s) Nano(bio)ted	chnology, Environme	ental Microbiology	, Microbial Ecology	







PROJECT IDEA(S)

Short description of project

Metal nanocatalysts can be synthesized on microbial interfaces. Such biologically produced nanoparticles may exhibit advantageous catalytic or antimicrobial properties compared to their chemically synthesized counterparts. We have recently reported on the reductive formation of noble metal nanocatalysts on microbial interfaces and have demonstrated their superior catalytic properties in a number of advanced reactions in synthetic organic chemistry including Suzuki-Miyaura and Mizoroki-Heck reactions. Our acquired expertise for the synthesis and characterization of nanosized noble metal catalysts afford the opportunity to test them in alternative catalytic assays and will form the basis for design and manufacturing of further exceptional metal nanoparticles on microbial surfaces, including metal hybrids.

The applicant is uniquely positioned to establish or support an internationally leading research project on the biological production of industrially important metal nanoparticles, their application for catalyzing transformation reactions, as well as studying microbenanoparticle interactions.

Michael Bunge is an environmental microbiologist who has received his Ph.D. in 2004 from the University of Halle, Germany. After a postdoctoral period at ETH Zurich, Switzerland, and the Interdisciplinary Nanoscience Centre (iNANO) at Aarhus University, Denmark, he is now conducting and leading research in the group of *Nanobiotechnology & Bioremediation* at the Institute of Applied Microbiology at Giessen University. He has major expertise in the field of microbial transformation of environmentally relevant organohalogen compounds (dioxins, PCBs, chlorobenzenes, chlorinated ethenes) in highly organohalogen-polluted aquatic sediments, aquifers at hotspot-contaminated sites, and reductively dehalogenating microbial cultures. Michael Bunge and his collaborators have published extensively on cultures containing inimitably specialized bacteria that use organohalogen compounds for energy conservation in a process called dehalorespiration (*e.g.*, by *Dehalococcoides* spp.). During a guest scientist stay at Innsbruck University, Austria, the applicant has been involved in the development and exploitation of innovative PTR-MS (proton transfer reaction mass spectrometry) techniques for ultrasensitive *real-time* detection of

microorganisms by analyzing the dynamic emission patterns of specific volatile organic

multidisciplinary nanobiotechnology and nanotoxicology projects, among others they have worked on the microbial recycling of Pd for catalyzing advanced reactions in synthetic organic chemistry. This work has been recently extended to simultaneous recovery and precious metals nanoparticle formation from industrial waste. The applicants have extensively studied the effects of engineered metal nanoparticles (Ag, Pd, Zn, Ce, Cu, Ti,

compounds (VOCs). Michael Bunge and his partners have successfully completed

and their oxides) on environmentally important microorganisms.

Description of scientific expertise offered







Description of technical expertise offered	The techniques available at JLU comprise standard and advanced microbiological methods for cultivation and diagnostics of microorganisms (including novel cultivation techniques for anaerobic and fastidious bacteria), techniques in analytical chemistry (RDA, GC-MS, IR-GC-MS, HPLC, HPLC-MS, AAS, ICP-OES), molecularbiological methods (quantitative real-time PCR, DNA/RNA-fingerprinting [t-RFLP, SSCP, D/TGGE], microarrays, fluidic chips), advanced techniques in microscopy (<i>in situ</i> hybridization [FISH und CARD-FISH], epifluorescence microscopy, confocal laserscanning microscopy, electron microscopy).
Description of requested partner scientific expertise	
Description of requested partner technical expertise	
	Justus Liebig University of Giessen, Germany, Research Centre for BioSystems, Land Use and Nutrition (IFZ), Rolf-Alexander Düring
Potential partners (name, organisation,	Tomsk Polytechnic University, Russia, Division of Nanomaterials and Nanotechnologies, Anna Yu. Godymchuk and Vladimir An
address)	University of Innsbruck, Austria, Institute for Ion Physics & Applied Physics, Atmospheric Chemistry and Indoor Air Chemistry, Armin Wisthaler







PARTICIPANT			
Gender	☐ Mr	Ms Ms	Title Dr.
First name	Michael		
Last name	Fedoro	v	
Position	Project manager		

ORGANISATION DE	ΓAILS						
	Laser-Forsc	hungslabor/L	IFE cent	er, Hosp	ital of th	e Ludwig-Maxii	milians-University of
Munich							
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Employees	1 -10	□ 11 - 5	50	51 - 3	250	250 +	
Organisation type	Higher Edu Institution	ucation	☐ Re Institu	esearch ution	I	Company	other
Department	Laser-Forsch	hungslabor at	LIFE-C	enter			
Short description of your company or organization	Campus Großhadern. The research and development focuses on clinical Biophotonik and						

TOPICS OF INTERES	T REGARDING THE CA	ALL FOR "INNOVATION	ON PROJECTS"		
Sub-topic of expertise	ICT Biotechnology	Materials Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keyword	s)				







PROJECT IDEA(S)	
Short description of project	Development of novel solid-state lasers (based on Tm- and Ho-doped crystals and fibers) at wavelength of 2 µm for endoscopic approach to use in several medical disciplines such as urology, gynaecology, cardiology. Optimization maximum output power and high conversion efficiency the laser elements and the cavity. Development of this high efficient laser as a medical product. Optimization of the cutting and coagulation effects with tunable wavelength and modes and different tissues.
Description of scientific expertise offered	Investigation of cutting and coagulation effects with ex-vivo tissue models. Laser light tissue interaction experiments with und without optical fiber. The distance between fiber end and tissue surface will be changed. Expiration time of the laser beam and modes will be change as well. During cutting experiments the fiber will move along the tissue by means of computer driven stepping motor and a velocity of 1mm/s. Especially important is the output power of laser radiation. Gross evaluation of the cutting quality with classifying the induced tissue effects in color of the interaction surface, carbonization, induced crater depth, superficial crater width, complete affected superficial tissue diameter, and total affected tissue depth. Integration of detections features (photoacoustic) for blood vessels in the laser system.
Description of technical expertise offered	Development of high-efficiency and compsact solid-state lasers (based on Tm-doped and Ho-doped laser crystals) at wavelength of 2 μ m which are capable to generate in cw or Q-switch regimes the high-quality beams. A variant of the created laboratory prototype of Ho:YAG laser is pumped by the radiation of the innovative Tm:YLF laser. The active rod of the Ho:YAG laser shows 25 mm in length with a undoped diffusion bonded end-cap. The laser cavity forms by a flat mirror with high reflectivity, flat 45° dichroic mirror with high reflectivity at the wavelength of λ = 2100nm and high transmission at the pump wavelength of λ =1909 nm, and a concave output coupler. To obtain maximum output power the pump beam diameter inside the active element expands from 0.53 to 0.8 mm, the output-coupler curvature is varied from 150 to 300 mm. The physical resonator length is varied during the optimization process from 5 to 25 cm. The created Ho:YAG laser is capable to generate both in cw and Q-swithched regimes with average power up to 15 W. The radiation at 2100 nm is coupled in a quartz fiber for delivery to a surgical zone.
Description of requested partner scientific expertise	We search partners for the integration of detections features for the blood vessels in the laser prototype, evaluation on the phantoms and application (or optimization) of the laser sources in the medical product.
Description of requested partner technical expertise	Industrial partner for production of the medical devise and certification, or use the laser device for clinical trials.
Potential partners (name, organisation, address)	







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Last name	Fehmer						
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Employees	1-10	11 -	50	5 1 - 250	250 +		
Organisation type	Higher Education Research Institution Company other					other	
Department	Sales Depa	rtment for Beha	vior, Meta	abolism and Inhala	tion Instrumentatio	on	
Short description of your company or organization	TSE Systems is a leading supplier of sophisticated research instrumentation in the global life science market. With over 120 years experience, we provide total customer solutions including expandable, integrated hard- and software platforms for in-vivo studies in neuroscience, phenotyping, drug screening and toxicology.						
TOPICS OF INTERES	ST REGARDING	THE CALL FOR	"INNOVA	TION PROJECTS"			
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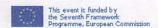
TOPICS OF INTERES	T REGARDING THE CA	ALL FOR "INNOVATION	ON PROJECTS"		
Sub-topic of expertise	ICT Biotechnology	Materials Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies
Other (Free keyword	(s)				







PROJECT IDEA(S)						
Short description of project	Nano-encapsulation or nano-delivery system: therapy using nanotechnology for transport of macromolecules across biological barriers. Development of technologies that promote the application of therapeutically significant payloads of higher molecular weight (>1kDa) pharmaceuticals across complex biological barriers aided by nanotechnology and exhibiting transport rates in such a way that a therapy can be effective. Examples of such biological barriers are blood-brain-barrier, mucosal barriers (e.g., intestinal, nasal, ocular, pulmonary) and epithelial skin barrier. The choice of therapeutic entity should include larger molecules such as proteins, antibodies, nucleic acids or peptide mimics, foldamers.					
Description of scientific expertise offered	Experience in development of individual instrumentation solutions for in-vivo research in field of drug development, drug screening. Consulting, conceptual design and manufacturing of brand new research devices for in-vivo experiments, based of established user-proved equipment. Up-to-date knowledge of European science state in in-vivo behavior, metabolism, inhalation due to permanent contact to scientific user.					
Description of technical expertise offered	Automated, high-throughput instrumentation for inhalation, behavioral analysis, cognitive screening and kinematic quantification. Following tools and technical expertise are available: Inhalation System for animals System for monitoring of drinking, feeding behavior and body weight System for monitoring of home cage activity System to estimate locomotor functions and motivation e.g. running wheel Systems for cognition testing Metabolic system for indirect calorimentry Wireless EEG measurement system System for different conditioning tests (passive avoidance, active avoidance, fear conditioning, learned helplessness, place preference conditioning ect.) System for kinematic analysis					
Description of requested partner scientific expertise	Partners with converging science expertise: physiology, biology, medicine, neurobiology, IT, chemistry, physics and nano research. Expertise in in-vivo research (working with animals) For project 1 additionally: drug development expertise, possible available drug candidates. Expertise for pre-clinical high-throughput screening.					
Description of requested partner technical expertise	Expertise in in-vivo research (working with animals)					
Potential partners (name, organisation, address)	Prof. Konstantin Anokhin, Kurchatov Institute, NBIC Center, Moscow 123182, Academic Kurchatov sc. 1 Prof. Moshkin, Institute of Cytology & Genetics, SB RAS, 10, Lavrentiev Ave. Novosibirsk, 630090					





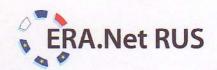
Technologies

Technologies

Optical

Climate

Transport



28 February 2011, Ekaterinburg, Brokerage Event ERA.Net-RUS Pilot Joint Calls Innovation Projects

PROFILE FORM

Sub-topic of expertise

Other (Free keywords)

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Last name	Heinrich						
Position	Vice Presid	ent					
ORGANISATION DE	TAILS						
Organisation name	marcotec	h oHG Marketing	g, Control	ling and Technolog	gy Management		
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	51 836 3410 Fax +49 836 3412						
Email * lothar.he	einrich@mar	cotech.de	Web v	www.marcotech.d	e		
Employees	1-10	C 11-	50	C 51 - 250	€ 250 +		
Organisation type	Higher Education Research Institution X Company other						
Department	R&D						
Short description of your company or organization	ur company industrial partners. The R&D is focused on applied nanotechnology. Additionally, the company						
TOPICS OF INTER	T REGARDING	THE CALL FOR	'INNOVAT	TION PROJECTS"			
	ICT ,	X Materi	als	Health	Environment an	X Production	

Space

Energy

Biotechnology

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 catalysis, 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. Wladimir Reschetilowski, Institute for Industrial Chemistry, Dresden University of Technology, 01062 Dresden (Germany), Prof. Vladimir Erofeev, Tomsk Polytechical University, Laboratory for Processing of Hydrocarbon Raw Materials through Nanotechnologies, Tomsk (Russia)

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Please send this form before 25th January 2011.







28 February 2011, Ekaterinburg, Brokerage Event ERA.Net-RUS Pilot Joint Calls Innovation Projects

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First name	Mikhail			
Last name	Ignatev			
Position	Project Ma	nager	•	

ORGANISATION DET	Organisation details							
Organisation name	IfU GmbH							
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Email * mig@ifu.de				Web v	www.if	u.de		
Employees	C 1-10			50	O 5:	1 - 250	C 250 +	
Organisation type	Higher Education Research Institution Institution				other			
Department	-							
Short description of your company or organization of ospecial conditions of special diagnostic methods and instrument to control in real time industrial material production technologies: thermal spraying, coating deposition, powder parts sintering.								

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







Other (Free keywords)

PROJECT IDEA(S)	
Short description of project	The Project aims at development and introducing in Powder Metllurgy (PM) industry optical instrument for simultaneous real time control of the main parameters characterized sintering process of production of nanostructured materials by PM technologies (Die Forming-DF, Powder Injection Moulding-PIM, Spark Plasma Syntering-SPS): temperature, dilatation (shrinkage), relation between liquid and solid phases, micro- and nano-grain size, amount of different phases, concentration of elements and Young's modulus.
Description of scientific expertise offered	Modeling and optical diagnostic of condensation and coating growth, materials nanostructure formation and sintering kinetics.
Description of technical expertise offered	Experience in development and introduction on the market of novel optical diagnostic systems: acousto-optical spectrometers, digital vision systems, etc.
Description of requested partner scientific expertise	Partner with R&D experience in study of relationship between desired mechanical macro-properties of end-user final PM parts and bulk material nanostructure using strain-gradient plasticity theory and nanohardness, elastic modulus and toughness characterisation. Creation of physical model for process control and automation
Description of requested partner technical expertise	SME company – manufacturer of PM parts, SME company – manufacturer of diagnostic systems and process automation
Potential partners (name, organisation, address)	The Consortium is under formation now

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Please **do not** publish my profile on ERA. Net RUS website (tick if appropriate)

Please send this form before 25th January 2011.







_							
PARTICIPANT			<u> </u>				
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Last name	Katanaev						
Position	Group Lead	ler					
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Employees	1 -10	□ 1-10 □ 11 - 50 □ 51 - 250 □ 250 +					
Organisation type	☐Higher F Institution	☐ Higher Education ☐ Research ☐ Company ☐ other Institution ☐ Company ☐ other					
Department	Biology						
Short description of your company or organization	of your company The search group (conducting research in the field of cell and developmental biology) at the Biology Department of the University of Konstanz						
TOPICS OF INTERE	ST REGARDING	THE CALL FOR	'INNOVAT	TION PROJECTS"			
Sub-topic of expertise	ICT Biotechn	□ Materi □ Energy	als	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies	
Other (Free keynus		•		-			







PROJECT IDEA(S)	
Short description of project	Development of small molecule- and biologics-based agonists and antagonists of the Wnt/Frizzled signaling as novel therapeutic agents
Description of scientific expertise offered	Broad expertise in cell, developmental, and cancer biology
Description of technical expertise offered	A variety of modern techniques of molecular cell biology and genetics and drug discovery
Description of requested partner scientific expertise	Expertise in protein structural analysis and bioinformatics techniques
Description of requested partner technical expertise	Protein crystallization and structural analysis; cell-free systems of protein expression; molecular docking; bioinformatics
Potential partners (name, organisation, address)	Institute of Protein Research, Russian Academy of Sciences, Pushchino, Institutskaya St. 4, 142290, Moscow region







PARTICIPANT				
Gender	X Mr	Ms Ms	le Dipl. Ing.	
First name	Siegfried			
Last name	Kraus			
Position	Deputy Dire	ector		

ORGANISATION DE	TAILS						
Organisation name	Fraunhofe	Institute Nor	destructive	Testing			
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Employees	1-10		- 50	x 51 - 250	250 +		
Organisation type	Higher Institution	Education	X Instit	Research ution	Company	other	
Department	Method Application and System Engineering						
Short description of your company or organization	At IzfP we develop new nondestructive testing methods for the detection of defects, the determination of material parameters and of the stress state. The developments start with the evaluation of the physical background and are finalized by the built up of respective systems which are designed for the use in rough industrial environment. Furthermore the methods and systems are offered as service in the accredited application center.						

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"						
Sub-topic of expertise	ICT Biotechnology	XX Materials XX Energy	Health Space	Environment and Climate Transport	Production Technologies Optical Technologies	
Other (Free keyword	s) Nondestruct	ive testing, Quality	control			







PROJECT IDEA(S)	
Short description of project	Transfer of Technology, Joint Development of Technology
Description of scientific expertise offered	Well experienced in the physics of the testing methods (Ultrasound, magnetism, X-Ray, Eddy Current, Thermography, Software, Sensors etc) and their evaluation for innovative industrial application
Description of technical expertise offered	Design, Built up and delivery of testing systems for the above mentioned methods and their application according to national rules and standards
Description of requested partner scientific expertise	Partners with high experience or special need of the a.m. methods
Description of requested partner technical expertise	Partners can be universities, research institutes and SME's for joint development and SME's with a portfolio in nondestructive testing systems where our methods and systems can be offered to meet the specific need of customers through innovation projects
Potential partners (name, organisation, address)	Universities and research institutes in the URAL region. NDT System developing and selling companies like INTROTEST for ultrasonic systems and MICRO ACOUSTICA for magnetic systems. Nishnij Tagil Metallurgy Kombinat as customer







PROFILE FORM

PARTICIPANT

Dieter Peschen Project Leader					
Project Leader					
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Employees					
Organisation type Higher Education x Research Institution Institution Company other					
Department Fraunhofer Institute for Molecular Biology and Applied Ecology					
Short description of applied life sciences from a molecular level to entire ecosystems. We offer research and development services for medicine, agriculture and environmental protection with main employor organization * diagnosis and therapy of human, animal and plant diseases * protection and improvement of food and feed stocks * identification and assessment of risks in synthetic and biogenous substances for consumer environment * development of strategies for minimization of risks. Our interdisciplinary organization and laboratories with most recent equipment including GMI	and				
facilities and complex facilities for environmental simulations allow a wide spectrum of resear	ch and				
development services in the areas of molecular biology, biotechnology, environmental chemis ecotoxicology and ecology.	try,				

TOPICS OF INTERES	T REGARDING T	HE CALL FOR "INNOVA	ATION PROJEC	TS"	
Sub-topic of expertise	ICT	Materials			Production Technologies







			Health	Environment and Climate	
	x Biotechnology	Energy	Space	Transport	Optical Technologies
Other (Free keywords)	· · · · · · · · · · · · · · · · · · ·				

DDOUGGT IDEA(c)						
Short description of project	The platform technology "Generation of Pathogen Resistance in Crops by Antibody-Fusion-Constructs" is the key technology of the new Start-Up company AgroProtect GmbH (www.agroprotect.com). The first marketable plant that is under construction is a potato plant resistant against Phytophthora infestans. This pathogen causes late blight and yield losses of 8-9 billion Euros per year worldwide.					
Description of scientific expertise offered	The group "Pathogen Resistance" from is focused on the development of a new technology platform called "Antibody fusions mediated pathogen resistance in planta" to protect crops against pathogenic fungi.					
Description of technical expertise offered	Fungi resistant potato for Russia					
Description of requested partner scientific expertise	Russian seed producers, scientists in the field green biotechnology					
Description of requested partner technical expertise	Approval of genetic modified plants in Russia					
Potential partners (name, organisation, address)	Russian Ministry of Agriculture, regulatory agencies, seed producers MINISTRY OF AGRICULTURE OF THE RUSSIAN FEDERATION DEPUTY MINISTER OF A.L. Černogorov [Tschernogorow] Deputy Head of the LV for International Cooperation Čeremisina [L. W. Czech draw Sina] Assistant to the Deputy Secretary VA Chairman of the Committee on Agricultural issues State Duma Birûlin [W.A. Birjulin]					







PARTICIPANT				
Gender	х	☐ Ms	Title	Prof. Dr.
First name	Uwe			
Last name	Pfueller			
Position	Guest professor			

ORGANISATION DETAILS								
Organisation name	University	of Ham	burg Cli	nics Hamb	urg-Ep	pendorf		
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Phone *				Fax				
Email * upfuelle@	uke.uni-ham	burg.de	!	Web uk	e.de			
Employees	1 -10		50	5 2	51 - 250			
Organisation type	X Higher Education Institution			☐ Re Institu	esearch ition	· [Company	other
Department	Department of Anatomy II / Experimental Morphology							
Short description of your company or organization	The Institute of Anatomy II: Experimental Morphology in the Center of Experimental Medicine, University Medical Center Hamburg-Eppendorf has its scientific focus on glycobiology and cancer research. Our particular focus is the development of clinically relevant animal xenograft models of spontaneous metastases and the investigation of the molecular events underlying metastasis formation and therapy.							

TOPICS OF INTEREST REGARDING THE CALL FOR "INNOVATION PROJECTS"						
Sub-topic of expertise	ICT X Biotechnology	Materials Energy	X Health Space	Environment and Climate Transport	Production Technologies Optical Technologies	
Other (Free keyword	s) Biological active pl	ant lectins / Cancer th	erapy			







PROJECT IDEA(S)						
Short description of project	Selective modulation of biologically active two-chain plant lectins using ionic liquids- molten salts – liquid at room temperature. Quantitative inactivation of sugar-bindung B chains of ribosome inactivating lectins of type II like mistletoe lectins and ricin and their use in tumour and metastasis therapy.					
Description of scientific expertise offered	Lectin histochemistry, isolation and characterization of lectins and their use in histochemistry; development of novel glycomimetic substances for lectins e.g. carba sugars. Glycosylation pattern of humic substances and their impact on natural processes					
Description of technical expertise offered	Isolation, characterization, (bio)chemical modulation and conjugation of plant lectins, characterization of sugar combining sites of lectins. Non-enzymatic glycosylation of humic substances and their interaction with lectins inhibited by simple sugars, animal models of cancer metastasis and their use in biomedical research					
Description of requested partner scientific expertise	Plant lectins and their glycan targets; selective and specific interaction of humic substances with biological macromolecules					
Description of requested partner technical expertise	(NMR)spectroscopic characterization of structural features of biological macromolecules like lectins and humic substances, e. g., humic acids, novel substances for cancer therapy					
Potential partners (name, organisation, address)	Russian Research Institute of Sport Academy Institute Division/Institute Molecular physiology department Moscow					







28 February 2011, Ekaterinburg, Brokerage Event ERA.Net-RUS Pilot Joint Calls Innovation Projects

PROFILE FORM

PARTICIPANT			
Gender	⊡ Mr	☐ Ms	Title Professor
First name	Peter		
Last name	Schwarz		
Position	Head of De	partment for Prev	vention and Care of Diabetes
		•	

ORGANISATION DE	ORGANISATION DETAILS								
Organisation name	Organisation name University Hospital Carl Gustav Carus at the TU Dresden								
Street * Fetscherstr	Street * Fetscherstrasse 74								
ZIP * 01307		City *	Dresde	en		Country *	Germa	ıny	
Phone * +4935145	82368	•		Fax +49	35145	586398			
Email * Peter.Schw dresden.de	arz@uniklini	kum-		Web					
Employees	1-10		11 - 9	50	5	1 - 250	2 5	60 +	
Organisation type	X Higher Education Institution			X Research		Com	pany	other	
Department	Internal Me	dicine	III, Preve	ntion and	Care o	of Diabetes	mellitus		
Short description of your company or organization	teaching h 19 hospita patients. C research, Center off pathogene	Internal Medicine III, Prevention and Care of Diabetes mellitus The University of Dresden Medical Faculty consits of 43 hospitals and togehter with its teaching hospitals and the professional Network Carus Consilum Sachsen comprises another 19 hospitals and 1470 physicians in the region of eastern Saxony covering about 2.3 Mill. patients. Close bonds to the University of Technology Dresden enable an atmosphere of research, learning and teaching. The Department of Internal Medicine III, Diabetes Care Center offers diabetes research programmes that reach from cell biology to genetics, pathogenesis and regeneration of diabetes as well as disease management research and, telemedicine and telediabetology research.							
	Saxony/Ge	The Medical Faculty at the Technical University Dresden is the largest hospital structure in Saxony/Germany. It is known for being highly specialised in innovative medicine and for being the only university in Germany which holds three excellence clusters funded by the Deutsche							

The Medical Faculty at the Technical University Dresden is the largest hospital structure in Saxony/Germany. It is known for being highly specialised in innovative medicine and for being the only university in Germany which holds three excellence clusters funded by the Deutsche Forschungsgemeinschaft. This includes excellence research in neural generative diseases, regenerative medicine and diabetes. In the excellence cluster diabetes the University Hospital covers research including basic research to study beta cell degeneration but also clinical research to study diabetes pathophysiology as well as applied clinical and care research to investigate innovative care processes and treatment algorithms. Additionally it covers disease management research to develop new management and care models. Furthermore the Faculty manages and organises the physician network "Carus Consilium Sachsen", which is lead by the University Hospital and which covers this Eastern Saxonian region.

Approximately 30,000 patients benefit from the experienced specialists at the Department of







Internal Medicine III at the University Hospital Carl Gustav Carus, Dresden every year, The 100 doctors here focus on the treatment and research of diabetes, hormonal and metabolic disorders, diseases of kidneys and the vascular system, as well as rheumatism and agerelated diseases. Based on the Dresden School of Metabolic Diseases' experience in treating diabetes, the MC III is a leading European centre for the prevention of diabetes. The Department of Medicine III offered the first professorship for the research of prevention and care of diabetes in Europe hosted by Prof. Peter Schwarz and offers specialised and customised programmes aimed at early detection and possible prevention of diabetes . Prof. Schwarz was the coordinator of the European funded "IMAGE" project which developed guidelines for diabetes prevention in Europe as well as standards for adequate European training curricula - a project which was fulfilled all proposed deliverables in time. He is partner and work package leader in several other European research projects DE-PLAN, DIAMAP, CEED3, HealthNavi, REALeH, SALUS and ePREDICE in the field of diabetes prevention and management and telemedicine and the coordinator of a global network of people "active in diabetes prevention" which includes more that 3600 members from 144 countries world wide. Due to this work Prof. Schwarz was chosen as the president of the 6th World Congress on the Prevention of Diabetes and its Complications in April 2010 in Dresden, Germany.

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

Patient Guidance Service, Telemedicine, Chronic Care Diabetes Management

PROJECT IDEA(S)

Russia has growing difficulties in the qualified care for patients with diabetes mellitus. Due to our cooperation with partners in Russia, we identified challenges like a very small numbers of diabetes specialists for a very large areas and a highlarge numbers of patients to treat. Examples like the situation in the Oblast Nowosibirsk and the Poliklinik development in the Moscow region. Furthermore, in the existing Poliklinik structure in the large cities in Moscow the number of existing physicians and especially specialists are not ready to cope with the fast increase of in numbers of patients with diabetes mellitus, currently leading to the prohibition of screening programmes as well as inadequate treatment for patients with type-2-diabetes mellitus in some regions.

Short description of project

Our centre in Dresden has a large expertise in the development and management of disease management programmes as well as chronic care management programmes for patients with diabetes mellitus. In the past we have developed and evaluated an over years existing programme in Saxony and have currently developed concepts for telemedicine based chronic care diabetes management concepts with several partners in Europe.

The existing demand for chronic care diabetes management in Russian health care centres as well as improved outcome driven diabetes disease management, defines the specific objective of the proposed project, which directly can gain an added value for the quality of diabetes care in Russian health care centres. The project will consist of know-how transfer in telemedicine, e-health and semantic interoperability, leading to individualised patient guidance services for patients with diabetes mellitus. But the project will have a unique bilateral cooperation between the partners due to the experiences gained on a scientific, IT structural and practical level, while during the development and evaluation of a telemedicine based chronic care diabetes management concept in Russian centres. The gain of the







proposed project will include the development of improved concepts for telediabetology derived chronic care management, but will have an added value for the quality of diabetes care in Russian medical centres, which, later, also can be applied and modified for other European institutions.

The objectives of the proposed project are:

- 1. The conceptual development of a telemedicine based chronic care diabetes management and disease management, applied to the medical and IT-infrastructural situation in Russian medical and ambulatory centres.
- 2. The implementation of the telemedicine based chronic care diabetes management by way of trial and the development of algorithms for standardised chronic care management in medical centres in Russia.
- 3. The evaluation of the above concepts to verify the clinical added value and effect onto diabetes patient outcome in Russian medical centres as well as the specification of health economic outcome.

The project includes the development and evaluation of an innovative patient guidance service that empowers patients to take a more active role in the management of their own personal health through better information, communication and means of shared decision making. A core component of the proposed project is the development and evaluation of a telemedicine based diabetes disease management with a telehealth based patient guidance service that will enable patient guidance service to directly operate on health information stored in personal health records. This data will be used to develop a virtual diabetes clinic, accessible by any partner involved in the diabetes disease management. Strict patient data security and privacy mechanisms will safeguard the use in operation of the patient guidance service, that will be developed on this platform: shared decision support, evidence based information, patient networking services and further patient-oriented services identified in close cooperation with clinicians, patients and their carers. The project will demonstrate that value can be added to existing health data by providing personal patient guidance service by using telemedicine based data transfer and patient support by using this information. The demonstration of the project achievements will be through a pilot application in diabetes with a customised patient guidance service. The validation of these results will follow a quantitative analysis approach with involvement of patients and healthcare professionals who will participate in the project work from the very beginning.

The **innovation of this project** derives from the fact that the developed telecommunication and internet based network technology is used to develop a patient guidance service for improving chronic medical care for patients with diabetes mellitus. This is achieved by using telemedicine based technology, enabling the continuous transmission of blood glucose measurement as well as injected insulin dosages from a diabetes patient into an electronic health record. An automated evaluation of these clinical data will achieve a continuous patient stratification, enabling the identification of patients with a higher or urgent need of medical care. The patient guidance service will add value to patient empowerment and patient self-management and will enable an increase of quality for medical care by using innovative technology. As part of this project this telemedicine based chronic care diabetes management structure will be developed, the IT algorithms will be made semantically interoperable to address the Russian healthcare environment and the system will be tested and evaluated to identify the added value to medical care. By doing this the project will provide an innovation due to the combination of innovative IT technology and innovative strategies of chronic care management and by this will be unique in the European healthcare structure.

Description of scientific expertise offered

The department for Prevention and Care of Diabetes Mellitus at the Medical Faculty at the Technical University of Dresden has an extensive expertise in diabetes disease management and the application of telecare solutions in the management of patients with diabetes mellitus. As part of the Carus Consilium Sachsen physician network, telemedicine applications are implemented into patient care services in Eastern Saxony. Together with the current European initiatives **HealthNavi** and **REALEH** the semantic interoperability of







telemonitoring and telemedicine based patient care will be evaluated and implemented. As part of the past European project **DIAMAP**, standards for a virtual diabetes clinic were developed and as part of the **IMAGE** project, guidelines for diabetes prevention and the European management of diabetes patients were developed by the applicant. Currently, together with the state of Saxony, a competence center for telediabetology will be developed in Saxony. Therefore, the center in Dresden combines expertise from different fields of chronic care management medicine, which can be of added value for the proposed project. The challenge of the project is the development of an automated telemedicine based service and a patient guidance service in a different healthcare environment than in Germany and other central European countries, together with different payment structures, disease perception and access to specialised healthcare in Russia.

Due to the ongoing projects in Dresden, a number of partners exist who have the technical expertise, which will be applied to the proposed project.

Description of technical expertise offered

- 1. Technical University of Dresden, Department for Prevention and Care of Diabetes Mellitus and Department of Medical Informatics here the expertise for the development of automated algorithms, which can be applied to an individualised patient guidance service, exists. The development of standardised rules to add value to an individualised disease management is a specification of the Department of Medical Informatics and Biometry. The automatisation of disease management rules and treatment goals are hosted in the Department for Prevention and Care of Diabetes Mellitus. Furthermore, the technology for automated evaluation of projects results exists at the Technical University, which can be used by the proposed project.
- 2. Medimatik / Bodytel together with those companies the telemedicine technology can be provided and specified with the above named algorithm based on the expertise from the Russian colleagues.

Description of requested partner scientific expertise

We have ongoing contacts to the chief endocrinologists in Moscow, Prof. Antisferov, the chief endocrinologist in St. Petersburg, Prof. Karpova, and Mrs Marina Schipulina from the St. Petersburg Diabetes Societey, as well as Prof. Medvedew at the Lomonosov University and Dr. Olga Sazanova, the chief diabetologist in Novosibirsk. The most important expertise from the Russian partner, which is needed, is the knowledge about the medical infrastructure in their region, structures for patient screening and patient management, current treatment goals and guideline requirements, as well as the knowledge about legal conditions, which are required for diabetes disease management. Due to the existing contacts with these partners we know that this expertise exists and that there is a high interest in the scientific evaluation of the proposed diabetes chronic care management based on telemedical patient guidance service. There is a general agreement with these partners that efficient telemedicine based disease management, together with patient guidance service will enable an accessibility of specialised care for patients far away from medical centers by enabling the center to treat more patients with high quality and by using telediabetology together with patient guidance services. Due to the different healthcare environments in Russia, compared to other European countries, but a similar growth of the number of patients with diabetes mellitus and a lack of adequate specialised diabetologist service, the results of the proposed project can directly add value to improve diabetes chronic care management in Russia. This was already discussed with Dr. Sazanova and Prof. Medvedew on an official delegation of our Ministry of Health (Saxony) in Moskov and Novosibirsk and will received support from this colleagues.

Description of requested partner technical expertise

The added value of the telediabetological technology is that the data transfer uses internet based network technology, internet based electronic health records as well as mobile telecommunication technology. All this technology already exists in Russia and the additional medical service and patient guidance service bring upon an added value to the use of the existing technology. To establish the project a data server in Russia would be needed due to legal requirements of data safety and patient protection. Therefore, from the technical point of view, there is no limitation to develop and evaluate this project in Russia.







	Prof. Oleg Medvedev, MD, Ph.D. Chair of Pharmacology School of Medicine, Lomonosov Moscow State University Moscow, Russia +7-495-932-9832 office +7-903-745-6208 mobile e-mail:oleg.omedvedev@gmail.com Skype ID: omedvedev	Dr. Olga Sazanova Municipal Clinical Hospital 1 Nowosibirsk Municipal Diabetes Center uliza Zalesskogo Str., 6 630047 Nowosibirsk
Potential partners (name, organisation, address)	Mrs. Shipulina Our adress in Saint-Petersburg is: 199178, V.O., Sredny pr., 54,SAINT- PETERSBURG DIABETES SOCIETY tel. +7 (812)327-09-01, fax. +7 (812) 327- 09-02 E-mail: centdiar@yandex.ru Prof. Antsiferov Prof. Mikhail B. Antsiferod, M.D., Ph.D Health Care department Moscow Prechistenka, 37, Moscow, 119034 Russia antsiferov@rambler.ru +7-499-246-65-73	Karpova, Irina Albertovna — MD, candidate of medical science, Head of St. Petersburg territorial diabetology center. 194354, St. Petersburg, Sikeirosa str., 10. E-mail: iakar@mail.ru .

I agree that my profile will be published on ERA.Net RUS website (tick if appropriate)

Please **do not** publish my profile on ERA. Net RUS website (tick if appropriate)

Please send this form before 25th January 2011.







PROFILE FORM

PARTICIPANT						
Gender	🔲 Mr	☐ Ms	Title			
First name	Alexander		•			
Last name	Schwock					
Position	manager of	f the branch offi	ce			
ORGANISATION DE	TAILS					
Organisation name	BalticNet-	-PlasmaTec				
Street *	Brandteic	hstr. 20				
ZIP * 17489		City * Greifs	wald	Country	/* Germany	
Phone * +49 383	4 550102		Fax -	+49 3834 55011	0	
Email * <u>bnpt@b</u>	alticnet-plasn	natec.org	Web	www.balticnet-ړ	olasmatec.org	
Employees	1 -10	11 -	50	51 - 250	250 +	
Organisation type	Higher Education Research Institution Company other				other	
Department						
Short description of your company or organization	of your company research and business in the field of plasma technology. It also helps interested					
TOPICS OF INTERES	T DECARDING	TUE CALL 500	"INNOVA	TION PROJECTS	,	
TOPICS OF INTERES	T REGARDING	THE CALL FOR	INNOVA	HON PROJECTS		
Sub-topic of expertise	ICT	⊠ Materi	als	⊠ Health	Environment and Climate	Technologies
Other (Free konnesses	Biotechn	ology Energy	ý	Space	L_I Transport	Optical Technologies
Other (Free keyword	is)					

PROJECT IDEA(S)







Short description of project	Plasma based decontamination / sterilization of sensitive materials especially for medical / biomedical application lice endoscopes and catheters to realize a secure procedure for multiple use of such devices (reduction of risk for infection)
Description of scientific expertise offered	Development und adaptation of plasma sources, analytics of plasma sources e.g. dielectric barrier discharge, microwave discharge
Description of technical expertise offered	Analytics of plasma sources (spectroscopy, FTIR, OES, temperature, energy) , Microbial speed tests, material tests like contact angle test, electron microskopie, XPS
Description of requested partner scientific expertise	Partners from research and industry for development of new atmospheric plasma sources and concepts
Description of requested partner technical expertise	Additional types of up scalable atmospheric plasma sources, Microbiological test procedures Certification procedure
Potential partners (name, organisation, address)	Dr. Anatoly Maltsev "Electrodynamic System & Technology" ("EST"), Ltd Akademichesky avenue, 8 / 8, office 211 634021, Tomsk, Tomsk region, Russia Tel.: (+7) 382 250 7975 Fax: (+7 382 2701 459 E-Mail: amaltsev@edynamicst.com web: www.edynamicst.com neoplas GmbH Walther-Rathenau-Str. 49a 17489 Greifswald Tel.: (+49) 3834 515 210 Fax: (+49) 3834 515 209 E-Mail: contact@neoplas.eu www.neoplas.eu Potential partners in Israel are contacted







PARTICIPANT							
Gender	🔲 Mr	☐ Ms	Title	Dr.			
First name	First name Joachim						
Last name	Venus						
Position	Senior Scie	ntist, Group Lead	der				
ORGANISATION DE	TAILS						
Organisation name	Leibniz-In	stitut für Agrarte	echnik Pot	tsdam-Bornim e.V.			
Street *	Max-Eyth	-Allee 100					
ZIP * 14469		City * Potsda	m	Country *	Germany		
Phone * +49(331)	5699-112		Fax +	-49(331)5699-112			
Email * <u>ivenus@</u>	atb-potsdam.	<u>.de</u>	Web	nttp://www.atb-po	tsdam.de		
Employees	1-10	□ 11 - 5	50	5 1 - 250	250 +		
Organisation type	Higher Institution	Education	⊠ Ro Instit	esearch ution	Company	other	
Department	Bioenginee	ering					
Short description of your company or organization	bioenergy and provides kin bio-econor Ongoing reoptimization bioconvers	and bio-based ping work makes a control material produced and temporal form of suitable highly ion processes; control makes and the field of the field and t	roducts a onsiderab lucing inc echnologic ld of bioco h-perforn ontinuous	re focal research is ble scientific-technic dustry towards the es for a successful proversion/biorefine nance strains; engir fermentation and	sues at the instituted cal contribution to entilization of bid and internationally cries covers the followering basics of promembrane based of	w materials for generating te (ATB) since its foundation the reorientation process in o-based feedstocks. It also y leading 'knowledge based owing tasks: screening and re-treatment and down-stream processing; of lactic acid from different	

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)					
	Scale-up of biotechnological processes for the conversion of non-food biomass				
Short description of project	The experience of recent years has shown that swift transfer of new biotechnological processes into practice often fails due to the lack of a reference facility that can be used for multiple applications. The construction of a pilot facility for production of lactic acid at the ATB consequently fills a gap in the various phases of bioprocess engineering from applied fundamental research through application research to the launch of biotechnological processes in practice. For the here presented example of a biorefinery a production of 10 t lactic acid per 200 days per year was conceived. As core of the plant the fermentation of lactic acid and several parts of purification of lactic acid work continuous over 24 hours per day. The provision of product samples is intended to open up the possibility of interesting partners in industry with specific product requirements in the various applications. In comparison to a real production scale it has to be considered the exclusive research character of the ATB pilot plant facility. Thereby the possibilities of alternative use of agricultural products shall be examined practical and shall be prepared for the technical application in large scale plant particularly in rural area. In this context, there is a strong interest to reduce costs for raw materials and to use renewable resources like grain and green biomass respectively. Use of by-products and wastes for energy generation will be integrated into the whole process.				
Description of scientific expertise offered	Dr. Joachim Venus, Senior Scientist, is head of the research program bioconversion of starchy agricultural feedstocks at the ATB and research group leader. His work emphasized on the development of continuous processes for the production of basic chemicals - in particular lactic acid - from biomass. At ATB Joachim Venus is in charge of numerous research projects being carried out in the multifunctional pilot plant for the biotechnological production of lactic acid from plant biomass. His Expertise and research areas are - bioconversion of renewable resources - pretreatment of plant substrates for microbial conversion processes, - kinetics of cell growth, modelling of anerobic fermentation processes - operation of a pilot plant for the development of biorefinery systems.				
Description of technical expertise offered	Expertise and equipment from lab scale (1-5 litres) up to pilot scale (300-1000 litres) 1. up-stream processing (pre-treatment & hydrolysis of biogenic raw material) • characterization of the different raw materials • pre-treatment of raw materials and storage • enzymatic hydrolysis, testing of new enzymes on adapted conditions (dosage, temperature, pH-value, duration) 2. (Lactic acid) fermentation • organism selection, strategies for biotechnological production in lab scale (1-3 litres) and bench scale (30-60 litres) • optimization of cultivation parameters (with respect to product recovery and purification, minimize chemical inputs, nutrient broth composition) • estimation of microbial kinetics and mass balances, comparison to other feedstocks • scaling up the process steps into pilot scale (up to 250-1000 litres) 3. down-stream processing (separation & purification of products) • adapt and optimise down streaming to feedstock conditions aiming a production of lactic acid with a quality suitable for further processing • estimate and characterise by-products and wastewater effluents				







Description of requested partner scientific expertise	Pre-treatment of biomass, especially lignocellulosic feedstocks Optimization of biocatalysts (microorganisms, enzymes) Downstream processing of fermentation broth and bio-based products, respectively
Description of requested partner technical expertise	Equipment for the separation of biomass components (e.g. disintegration, steam explosion, extraction of fermentable sugars) membrane-based separation
Potential partners (name, organisation, address)	Prof. Alexander Netrusov, Moscow Lomonosov State University, Microbiology Department, 1/12 Lenin's Hills, 119992 Moscow anetrusov@mail.ru; http://www.bio.msu.ru/kafedry/microbio/index e.html







PROFILE FORM

Organisation type

Short description

of your company

or organization

Department

Institution

screening and toxicology.

PARTICIPANT						
Gender	☐ Mr	☐ Ms	Title	MBA		
First name	Elena					
Last name	Wenzler					
Position	Vice Sales	Director Eastern	Europe			
ORGANISATION D	ETAILS					
Organisation nam	e TSE Syste	ms GmbH				
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Phone * +49 – (0) 6172 -789-2	282	Fax	<u>.</u>		
Email * Elena.V	Email * Elena.Wenzler@TSE-Systems.com Web www.TSE-Systems.com					
Employees	1-10	C 11 -	50	5 1 - 250	2 50 +	
Organisation type	Higher 1	Education	R	esearch	⊠ Company □ oth	.or

Institution

Sales Department for Behavior, Metabolism and Inhalation Instrumentation

Company

TSE Systems is a leading supplier of sophisticated research instrumentation in the global life science

market. With over 120 years experience, we provide total customer solutions including expandable,

integrated hard- and software platforms for in-vivo studies in neuroscience, phenotyping, drug

other

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			







PROJECT IDEA(S)	
Short description of project	Nano-encapsulation or nano-delivery system: therapy using nanotechnology for transport of macromolecules across biological barriers. Development of technologies that promote the application of therapeutically significant payloads of higher molecular weight (>1kDa) pharmaceuticals across complex biological barriers aided by nanotechnology and exhibiting transport rates in such a way that a therapy can be effective. Examples of such biological barriers are blood-brain-barrier, mucosal barriers (e.g., intestinal, nasal, ocular, pulmonary) and epithelial skin barrier. The choice of therapeutic entity should include larger molecules such as proteins, antibodies, nucleic acids or peptide mimics, foldamers.
Description of scientific expertise offered	Experience in development of individual instrumentation solutions for in-vivo research in field of drug development, drug screening. Consulting, conceptual design and manufacturing of brand new research devices for in-vivo experiments, based of established user-proved equipment. Up-to-date knowledge of European science state in in-vivo behavior, metabolism, inhalation due to permanent contact to scientific user.
Description of technical expertise offered	Automated, high-throughput instrumentation for inhalation, behavioral analysis, cognitive screening and kinematic quantification. Following tools and technical expertise are available: Inhalation System for animals System for monitoring of drinking, feeding behavior and body weight System for monitoring of home cage activity System to estimate locomotor functions and motivation e.g. running wheel Systems for cognition testing Metabolic system for indirect calorimentry Wireless EEG measurement system System for different conditioning tests (passive avoidance, active avoidance, fear conditioning, learned helplessness, place preference conditioning ect.) System for kinematic analysis
Description of requested partner scientific expertise	Partners with converging science expertise: physiology, biology, medicine, neurobiology, IT, chemistry, physics and nano research. Expertise in in-vivo research (working with animals) For project 1 additionally: drug development expertise, possible available drug candidates. Expertise for pre-clinical high-throughput screening.
Description of requested partner technical expertise	Expertise in in-vivo research (working with animals)
Potential partners (name, organisation, address)	Prof. Konstantin Anokhin, Kurchatov Institute, NBIC Center, Moscow 123182, Academic Kurchatov sc. 1 Prof. Moshkin, Institute of Cytology & Genetics, SB RAS, 10, Lavrentiev Ave. Novosibirsk, 630090



Sub-topic of expertise

Other (Free keywords)



Optical

Technologies

Technologies

Environment and

Climate

Transport



ERA.Net-RUS Pilot Joint Calls Innovation Projects

PROFILE FORM

PARTICIPANT						
Gender	☐ Mr	C Ms	Title	PhD		
First name	Germes		l .			
Last name	Chilov					
Position	General dir	ector				
ORGANISATION D	ETAILS					
Organisation name	e "Molecula	ar Technologies	" Ltd			
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ZIP * 119992		City * Moscov	V	Country *	Russian Federation	
Phone * +7 499 13	55313		Fax +7 4	99 1355313		
Email *ghermes@	moltech.ru		Web ww	w.moltech.ru		
Employees	1 -10	11 -	50	51 - 250	250 ±	
Organisation type	Higher I	Education	Re Institu	esearch ution	Company	other
Department						
Short description of your company or organization	Software development for modeling small-molecule-protein interactions (docking, binding affinity calculations, virtual screening) and protein-protein interactions, virtual protein engineering for improved specificity (twards small molecule or protein recognition). Applied research in the field of drug discovery (lead finding and optimisation) and rational protein design.					
	•					
TOPICS OF INTERES	ST REGARDING	THE CALL FOR	"INNOVAT	ION PROJECTS"		
	ICT	☐ Materi	ials	⊠ Health	Environment ar	Production

Space

Energy

Biotechnology







PROJECT IDEA(S)	
Short description of project	1) Discovery of a small molecule drug candidate for a particular target 2) Rational protein (enzyme, receptor, antibody) design with a given specificity
Description of scientific expertise offered	Computational chemistry and biology, biochemistry and enzymology, organic chemistry
Description of technical expertise offered	molecular modeling and bioinformatics, chemical syntheis
Description of requested partner scientific expertise	Biology, biotechnology
Description of requested partner technical expertise	In vitro and/or in vivo biologic experiments
Potential partners (name, organisation, address)	







PROFILE FORM: ATLANTIS Consulting

PARTICIPANT				
Gender	☐ Mr		Title	Mr.
First name	Tasos			
Last name	Tzifopanop	oulos		
Position	Project Adr	ministrator	•	

ORGANISATION DETAILS				
Organisation name	ATLANTIS Consult	ting S.A.		
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ZIP * 15562	City *	Athens	Country *	Greece
Phone * +30 210-	6563800	Fa	ax +30 210-6563801	
Email * tzifopano	poulos@atlantisres	earch.gr W	Web www.atlantisresea	rch.gr
Employees	1 -10	11 - 50	51 - 250	250 +
Organisation type	Higher Education Research Institution Company other			
Department	Informatics, R&D			
Short description of your company or organization	ATLANTIS Consulting S.A. is a private consulting firm established in Thessaloniki, Greece in 1992. ATLANTIS has offices in Athens and Patra, and is also complemented by its subsidiary companies, ATLANTIS Engineering, also in Thessaloniki, ATLANTIS Cyprus in Nicosia, and ATLANTIS Crete in Heraclion. The staff is composed of engineers, economists, social researchers and IT specialists with post-graduate studies in Greece and abroad. The main services offered are: - e-business and e-services - Subsidies related services - Management Consulting - Science and Technology Policy Studies			

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







Other (Free keyword	s)		

PROJECT IDEA(S)	
THOSE TO THE TOTAL OF	1. <u>Carpooling service:</u> a carpooling service that will allow users to offer and request ride sharing journeys using their WEB Browser and/or mobile phone, and receive instant matching. Could be built based on landmarks, could be assisted by the phone's GPS, and could be performed automatically. The envisaged system will include a web interface for desktop users, a web interface for mobile phones, a mobile phone application and a sophisticated web access GIS-based service. The service will allow users to offer and request ride sharing journeys and match them with other users (automatically or manually).
Short description of project	2. <u>Social interaction through memories:</u> a platform to enable citizens, to share memories and upload artefacts (photographs, letters etc.) related to these memories. User memories will then be automatically matched by content (text, image and faces) and used as a point of interaction, between users and the wider community. The platform will allow all tangible artefacts of a person's life experience to be uploaded to a web site and become a significant resource for use by other generations, and a means for connecting users (especially important for senior citizens) with members of various generations. Moreover, each user could have the ability to create pages in the memory of people that have passed away, where memories of these persons (e.g. letters, photos, videos, etc.) could be upload in order their relates, peers, etc. to remember them.
	 3. Decision support system for logistics/industrial maintenance: provision of a standard methodological framework and of the necessary IT tools in order to improve the performance of industries as relates to their maintenance and logistics departments. Main outcomes will include a maintenance ontology, KPIs, performance auditing and Decision Support (DSS) automation. 4. Soundwalk service: an information system for collecting, creating, organizing and processing of multimedia content, focusing on sound, for the digital representation of
	soundscapes providing both indoor environmental education and interactive open field soundwalk services. It will be offered via a PC, and on outdoor paths by providing interactive "soundwalks" to travelers and visitors on the move.
Description of scientific expertise offered	ATLANTIS staff is composed of engineers, economists, social researchers and IT specialists with post-graduate studies in Greece and abroad. Major expertise in: • WEB services • Traffic management systems, non-technical barriers and car-pooling • Decision support systems • Mobile applications • Industrial maintenance and logistics • Social networks
Description of technical expertise offered	ATLANTIS has a wide range of competence. These include Management competencies, such as time management, consortium management, realistic objective setting, the application of quality management procedures such as ISO 9000:2001, etc. They also include design competencies relevant to the projects such as user need analysis, functional specification design, use case scenario specification, and system architecture design. In addition, the company has a number of necessary development and testing competencies, including web development (for publicity), application development, mobile application development, communication systems implementation, database design and implementation, design and implementation of decision support systems, profile based







	reasoning, factory testing, site testing and design of evaluation activities. Finally, the company is able to leverage its experience in the areas of exploitation and dissemination, particularly at the national and regional level, including the organisation of thematically focused profile raising events, newsletters, publicity web site, etc.
Description of requested partner scientific expertise	We are looking for IT oriented partners (e.g. s/w development, mobile applications, web services), companies who operate in the industrial maintenance domain, and also for organizations who can participate in the projects, as end users.
Description of requested partner technical expertise	For the project of the carpooling service: It companies (web services, ebusiness, software development, etc), in order to participate in phases such as service development, service verification and evaluation, etc. Automobile clubs Companies specialized in the development wireless/mobile applications (e.g. applications for mobile devices such as smartphones). For the project of the social interaction through memories: It companies (as above), Universities and Research Institutes (departments specialized in areas related to the project ideas above). Institutes or Non-profitable organizations related with seniors For the project of DSS for logistics/maintenance: Companies from the domains of industrial maintenance, logistics, supply chains, etc., either as technology providers or as end-users. For the project of soundwalks service: It companies It companies Travel agents, Hotels, etc. (tourism related organizations) Companies specialized in the development wireless/mobile applications
Potential partners (name, organisation, address)	