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Boletín de Oportunidades de Cooperación

TIC y Seguridad

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Agencia Andaluza del Conocimiento
CONSEJERÍA DE ECONOMÍA Y CONOCIMIENTO



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1. Perfiles de cooperación (64)

	Título	Referencia	Tipo
1	H2020-FTIPilot-2016. Industrial partner sought for development of a devulcanization process for industrial valuable rubber resource from tyres	RDES20160129002	Proyecto buscando socios
2	ERANet LAC Joint Call 2015-2016: R&D institutions and companies experienced in solar thermal energy & energy storage technologies	RDES20160202001	Proyecto buscando socios
3	FAST TRACK TO INNOVATION: Companies or technological centres for the manufacturing of confocal fluorescence microscope with miniaturization capacity	RDES20160210001	Proyecto buscando socios
4	ERA-NET WaterWorks: Companies and R&D institutions with a strong background on water balance and data analysis	RDES20160210002	Proyecto buscando socios
5	H2020 ICT-21-2016 Support technology transfer to the creative industries: an Italian SME is looking for SME to develop a Cloud SaaS tool	RDIT20160224002	Proyecto buscando socios
6	Development of a new T-commerce technology for TV shopping	RDKR20160203001	Proyecto buscando socios
7	Very Urgent - H2020 Fast Track to Innovation Pilot 2016: Heat Interface Unit for central space heating and domestic hot water preparation systems. Three industrial partners sought to complete the consortium	RDIT20160212001	Proyecto buscando socios
8	URGENT: ERASMUS+ KA2 2016, capacity building in the field of higher education, German higher education institutions (tertiary level) sought to join as a partner	RDNL20160215001	Proyecto buscando socios
9	H2020 GV-04-2017 Next generation electric drivetrains for fully electric vehicles, focusing on high efficiency and low cost - UK company seeking vehicle manufacturers, primary suppliers or technology providers.	RDUK20160108005	Proyecto buscando socios
10	H2020-FTIPilot-2016: Industrial partners and public transportation operators are sought to finalize the	RDFR20160115001	Proyecto buscando socios

	development of a green urban bus		
11	Partners sought for future ERASMUS+ proposal - to support development of a multi-lingual platform to deliver accessible best practice e-learning into the land based sector and associated supply chains	RDUK20160205001	Proyecto buscando socios
12	Comprehensive development services for radio-frequency, microwave, millimetre and submillimetre wave circuits, antennas and subsystems	TOES20160210002	Oferta Tecnológica
13	Ultra-compact tunable fibre laser technology from Japan for licensing in the EU	TOJP20160203001	Oferta Tecnológica
14	A manufacturing technology of micro wave absorbing ferrite sheet for NFC (near field communication)	TOKR20160203001	Oferta Tecnológica
15	An intelligent wireless socket for integration and monitoring of all electrical devices in the home	TOMK20160213001	Oferta Tecnológica
16	A wireless touch light switch for remote control and operation	TOMK20160213002	Oferta Tecnológica
17	Voice control system for people with disabilities.	TORU20160126001	Oferta Tecnológica
18	Image-based CAPTCHA for touch screen devices	TOES20160205001	Oferta Tecnológica
19	Easy and secure e-voting platform	TOGR20160201001	Oferta Tecnológica
20	Software for 3D reconstructions by using photos taken by any camera	TOIT20160121001	Oferta Tecnológica
21	In-silico design and optimization of microalgae based biorefineries through mathematical models	TOIT20160201001	Oferta Tecnológica
22	Ultra-scalable database technology	TOES20160212001	Oferta Tecnológica
23	Autism disorders treatment assisted by robot	TOIT20160204002	Oferta Tecnológica
24	A device is offered to power the trailing throttle of electric cars, usable within the construction of electric cars and is offered via financial agreement or license agreement.	TOSK20160108001	Oferta Tecnológica
25	Natural ventilation systems for energy saving in buildings with optimisation of environmental impact	TOIT20160122001	Oferta Tecnológica

	and economic value		
26	High frequency impulse measurement (HFIM) technology to measure cracks in real-time during metal processing	TODE20160209001	Oferta Tecnológica
27	Micro-supercapacitors with high energy density and excellent cycling stability	TOES20160211001	Oferta Tecnológica
28	Low cost and versatile fabrication of complementary organic semiconductor devices by UV-VIS irradiation	TOES20160204001	Oferta Tecnológica
29	A UK SME that has developed an advanced digital network tracking system (with applications for protecting high risk locations) is offering service and commercial agreements with technical assistance to organisations interested in using the system	TOUK20150930001	Oferta Tecnológica
30	Automated smart fire detection for outdoor areas using advanced infrared thermography	TOAT20160119001	Oferta Tecnológica
31	Intelligent self-cleaning toilet	TOPL20160122002	Oferta Tecnológica
32	Cobotic and exoskeleton integration to reduce arduousness in industry	TOFR20160107001	Oferta Tecnológica
33	Scottish Company offering new building simulation methods	TOUK20160205002	Oferta Tecnológica
34	Efficient energy harvesting for the internet of things or wireless sensors by use of innovative thermoelectric generators	TODE20160215002	Oferta Tecnológica
35	Scottish SME has developed a patented self-scanning breast tumour detection tool	TOUK20160219001	Oferta Tecnológica
36	French research and development center of plastics and composite materials seeks research cooperation agreements.	TOFR20160126001	Oferta Tecnológica
37	Additive manufacturing design and engineering software	TOIT20151222001	Oferta Tecnológica
38	Computer programs and education for control and improvement of manufacturing and administrative	TOHU20151209001	Oferta Tecnológica

	processes		
39	Professional drug interaction verification system	TOHU20160204001	Oferta Tecnológica
40	Method for manufacturing powder metallurgy magnets	TOES20151014001	Oferta Tecnológica
41	An embedded Augmented Reality Vision system, guided by pointing gesture recognition.	TOES20151228003	Oferta Tecnológica
42	Brussels-based company reconnects elderly with their direct environment with an innovative userfriendly service	TOBE20151208001	Oferta Tecnológica
43	Online load control for pipe jacking	TODE20160211001	Oferta Tecnológica
44	Novel content management system based on semantic and machine learning techniques	TOES20150518001	Oferta Tecnológica
45	Novel social tool for capturing and analyzing information published in social networks	TOES20150601001	Oferta Tecnológica
46	Universal Release Access System	TOES20160121003	Oferta Tecnológica
47	Inertial sensor technology for a real-time functional detection of human movement	TOIT20160205001	Oferta Tecnológica
48	A Turkish automotive manufacturer offers innovative cheap and environmentally friendly cooling system through manufacturing agreement and licensing agreement.	TOTR20160211001	Oferta Tecnológica
49	Embeddable device for the implementation of physically unclonable functions	TOIT20160126002	Oferta Tecnológica
50	Novel technology for optimizing production in continuous-casting steel plants	TOIT20160126007	Oferta Tecnológica
51	Smart thermostat technology	TOIT20160126009	Oferta Tecnológica
52	Novel artificial intelligence solution for automatic written text content analysis	TOIT20160126008	Oferta Tecnológica
53	Method for improving the performance of wireless communication systems by combining signals that arrive to a diversity receiver	TOGR20160210001	Oferta Tecnológica

54	Eastern Europe partners sought for manufacturing capacities	TRDE20151221001	Necesidad Tecnológica
55	Looking for acoustic, underwater and micro seismic noise prediction company	TRGR20160222001	Necesidad Tecnológica
56	Looking for particle sizing nanotechnology company	TRGR20160222002	Necesidad Tecnológica
57	Looking for a provider able to produce resistive lines and films on electronic circuits	TRES20160112001	Necesidad Tecnológica
58	Partner sought to develop a "Free Viewpoint Video" capture system for virtual and mixed reality applications	TRAT20160218001	Necesidad Tecnológica
59	UK entrepreneur seeking virtual reality software specialist for development of new augmented reality demonstrator for FutureFest 2016	TRUK20160223001	Necesidad Tecnológica
60	Scottish Cheese producer seeking wrapping technology for artisan cheeses.	TRUK20160219001	Necesidad Tecnológica
61	Seeking software solutions for data identity reconciliation and anonymization	TRSG20160215001	Necesidad Tecnológica
62	Seeking next-generation data-centre energy management solutions	TRSG20160218001	Necesidad Tecnológica
63	Co-operation on personal diagnostic analyses for human and animal medicine	TRSI20160215001	Necesidad Tecnológica
64	Cloud server technologies for multiplayer video games.	TRES20160122001	Necesidad Tecnológica

2. Informes y Publicaciones

Resultados provisionales de la participación española en Horizonte 2020

<http://eshorizonte2020.es/actualidad/noticias/resultados-provisionales-de-la-participacion-espanola-en-horizonte-2020-2014-2015>

Informe “Dossier de indicadores de comercio electrónico. Marzo de 2016” (ONTSI)

<http://www.ontsi.red.es/ontsi/es/node/6864>

Informe “Observatorio Redes Sociales – Millennials. VII Ola” (The Cocktail Analysis y Arena)

<http://tcanalysis.com/blog/posts/millennials-y-redes-sociales-nuevo-proyecto-de-the-cocktail-analysis-y-arena>

Informe “They say they want a revolution. Total Retail 2016” (PwC)

<http://www.pwc.com/gx/en/industries/retail-consumer/global-total-retail.html>

Informe “Predicciones de Tecnología, Medios de Comunicación y Telecomunicaciones. 2016” (Deloitte)

<http://www2.deloitte.com/es/es/pages/technology-media-and-telecommunications/articles/predicciones-tmt.html>

Informe “2015 State of the Industry Report on Mobile Money” (GSMA)

<http://www.gsma.com/mobilefordevelopment/programme/mobile-money/state-of-the-industry-2015/>

Informe “The state of IT Venture Capital in Spain in 2015” (Venture Watch)

<http://venture.watch/index.php/blog/>

Informe “Estudio sobre uso de Adblockers en España” (IAB Spain y Elogia)

<http://www.iabspain.net/noticias/1-de-cada-4-internautas-declara-usar-adblockers/>

Informe “Penetración y uso de Apps en el Smartphone en España” (eMMA)

<http://www.viko.net/noticias/emma-presenta-el-estudio-sobre-penetracion-y-uso-de-apps-en-el-smartphone-en-espana/>

Mapa de las redes sociales y otros servicios en la nube. Versión VI (iRedes)

<http://www.iredes.es/mapa/>

Informe “Blazing the Trail From Data to Insight to Action” (Forbes y SAS)

<http://www.forbes.com/forbesinsights/sas/index.html>

Informe “Dossier indicadores relacionados con la administración electrónica y las TIC en la educación en España. Marzo de 2016” (ONTSI)

<http://www.ontsi.red.es/ontsi/es/node/6852>

Informes “Inclusión digital en América Latina y el Caribe” (GSMA)

<https://gsmaintelligence.com/research/?file=bc2039b5cc86be21d1299ba3a7b1bde2&download>

Informe “A Roadmap to Digital Value in the Retail Industry” (Cisco)

<http://connectedfuturesmag.com/a/S15R13/retail-roadmap/>

Informe “Innovation Clusters: Understanding life cycles” (The Economist Intelligence Unit)

<http://destinationinnovation.economist.com/part-1/>

Spam and phishing in 2015. Mobile malware evolution 2015 (Kaspersky Lab)

<https://securelist.com/analysis/kaspersky-security-bulletin/73591/kaspersky-security-bulletin-spam-and-phishing-in-2015/>

Technology and Innovation Report 2015. Fostering Innovation Policies for Industrial Development (UNCTAD)

<http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1416>

Digital Economy and Society Index (DESI). Country profiles (Comisión Europea)

<https://ec.europa.eu/digital-agenda/en/news/desi-2016-country-profiles>

Los retos de la banca en España. Visión del consumidor y relación con digital (The Cocktail Analysis)

<http://tcanalysis.com/blog/posts/transformacion-digital-en-banca-la-perspectiva-del-consumidor>

Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies (Pew Research Center)

<http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/>

Intelligent Assets: Unlocking the Circular Economy Potential (World Economic Forum)

<http://www.weforum.org/reports/intelligent-assets-unlocking-the-circular-economy-potential>

The Mobile Economy 2016 (GSMA)

<http://www.gsma.com/newsroom/press-release/4g-connections-hit-one-billion-as-mobile-broadband-momentum-extends-to-the-developing-world/>

Young Children (0-8) and Digital Technology (Universidad Autónoma de Madrid, Universitat Autònoma de Barcelona y Joint Research Centre, European Commission)

<http://publications.jrc.ec.europa.eu/repository/handle/JRC93239>

A new regulatory framework for the digital ecosystem (GSMA)

<http://www.gsma.com/newsroom/press-release/new-gsma-study-calls-for-fundamental-review-of-digital-ecosystem-regulations/>

The New Imperative of Innovation Policy: Perspectives for Latin America and the Caribbean (BID)

<https://publications.iadb.org/handle/11319/7417>

Global Powers of Retailing 2016. Navigating the new digital divide (Deloitte)

<http://www2.deloitte.com/global/en/pages/consumer-business/articles/global-powers-of-retailing.html>

Future of Operations in the digital world (Arthur D. Little)

http://www.adlittle.com/viewpoints.html?&no_cache=1&view=747

Analytics Trends 2016. The Next Evolution (Deloitte)

<http://www2.deloitte.com/es/es/pages/technology/articles/dificultades-para-encontrar-expertos-en-big-data.html>

¿Moda por un tubo? La relación con el cliente omnicanal en el sector moda en España. Retos y oportunidades (PwC)

<https://www.pwc.es/es/sala-prensa/notas-prensa/2016/moda-por-un-tubo-relacion-cliente-omnicanal-sector-moda.html>

Fostering investment and competition in the broadband access markets of Europe (ETNO y Plum)

<https://www.etno.eu/news/etno/2016/845>

Cerrar la brecha de cobertura. Inclusión digital en América Latina (GSMA)

<http://cet.la/blog/course/cerrar-la-brecha-de-cobertura-en-america-latina-gsma/>

Safeguarding Mobile Money: How providers and regulators can ensure that customer funds are protected (GSMA)

<http://www.gsma.com/mobilefordevelopment/programme/mobile-money/safeguarding-mobile-money-how-providers-and-regulators-can-ensure-that-customer-funds-are-protected/>

Computación Cognitiva. La nueva revolución del Big Data (Raúl Arrabales, ICEMD)

<http://recursosmarketing.icemd.com/estudios-y-tendencias/e-book-computacion-cognitiva-la-nueva-revolucion-del-big-data/>

Tecnología Blockchain (BBVA Innovation Center)

<http://www.centrodeinnovacionbbva.com/ebook/ebook-tecnologia-blockchain>

Evolución y perspectivas de e-commerce para 2016 (Kanlli y D/A Retail)

<http://www.kanlli.com/ecommerce/ecommerce-previsiones-2016-segun-estudio-de-kanlli-y-da-retail/>

Estrategias y tendencias en el sector de las telecomunicaciones 2015 (KPMG)

<https://home.kpmg.com/es/es/home/tendencias/2016/02/informe-estrategias-tendencias-sector-telecomunicaciones.html>

3. Eventos (H2020, Networking I+D+i)

Transferencia de Tecnología - Si estás interesado en participar en alguno de estos eventos contacta conmigo y te prestaré soporte técnico durante todo el proceso de registro, participación y seguimiento tras el evento (marcados en rojo los de carácter nacional, en verde los regionales, en azul los europeos/Internacionales)

- [5 April - PhotonicSensing Matchmaking Event \(Brussels\)](#)
- [5 April - B2B Matchmaking at IT Summit \(Linz, Austria\)](#)
- [5 April - Eurostars Match ICT Solutions for Smart Cities \(Helsinki, Finland\)](#)
- [12 April - Virtual Reality World Congress and Brokerage Event \(Bristol, UK\)](#)
- [19-21 April - conhIT Business Meetings 2016 \(Berlin, Germany\)](#) (Deadline for registration: 10th April). Contact me.
- [25-29 April - Brokerage Event at Hannover Messe \(Hannover, Germany\)](#) (Deadline for registration: 16th March). Contact me.
- [27 April - EUREKA Innovation Week 2016: Matchmaking event \(Stockholm, Sweden\)](#)
COORGANIZAMOS
- [11 May - Smart Cities India. Matchmaking event \(New Delhi, India\)](#)
- [19 May - ICT Brokerage Event Argentina 2016 \(Buenos Aires, Argentina\)](#)
- [8-10 June - Brokerage at eHealthweek 2016 in Amsterdam \(Amsterdam, The Netherlands\)](#)
- [8 June - Vision London \(London, UK\)](#)
- [9-10 June - Brokerage event on Futur en Seine \(the biggest European Festival dedicated to Digital innovation\) in Paris](#)
- [13 June - Eurosatory: Defence & Security International Exhibition \(Paris Nord Villepinte, France\)](#)
- [15 June - B2B and conference on Hyperspectral Imaging in Industry \(Graz, Austria\)](#)
- [14 June - Investment Forum in Green Technologies \(Madrid, Spain\)](#)

- [14-16 June, EU Sustainable Energy Week 2016, \(Brussels, Belgium\)](#)
- [17 June - E² Tech4Cities 2016 – Energy & Efficiency Technologies for cities Brokerage event \(Brussels, Belgium\) COORGANIZAMOS](#)
- [23 June - Industrial Technologies 2016 Matchmaking \(Amsterdam, The Netherlands\)](#)
- [17 August - Brokerage Event at Gamesmatch@gamescom \(Cologne, Germany\)](#)
- [Pending confirmation: Medica, Expoworld Smart Cities Barcelona, SIMO, ICT Proposers' Day](#)

Más eventos en <http://een.ec.europa.eu/tools/services/EVE/Event/ListEvents?nolayout=true>

Horizonte2020 y otros programas de financiación

Últimas novedades: <http://www.eshorizonte2020.es/actualidad/noticias>

- [Diagrama GANTT de Convocatorias I+D+i: H2020, internacionales... - Elaborado por la Agencia Andaluza del Conocimiento – Solicita ser incluido en la lista de distribución: \[horizonte2020.aac@juntadeandalucia.es\]\(mailto:horizonte2020.aac@juntadeandalucia.es\)](#)
- [Presentaciones de la Comision Europea sobre todos los topics TIC 2016 de H2020 en el Programa de Trabajo de TIC así como en Retos Sociales y Ciencia Excelente](#)
- [Dossier explicativo de la presencia de las TIC en todas las líneas H2020 que se financiarán en 2016](#)
- [H2020 ICT-LEIT. Internet de las Cosas \(IoT\). Publicación de las recomendaciones de AIOTI \(Alliance for Internet of Things Innovation\).](#)
- [H2020: Actualización MAP de la PPP de Robótica \(SPARC\)](#)

Eventos

- [9 March - Infoday JTI ECSEL \(Madrid, Spain\)](#)
- [15 Marzo - Jornada Ciencia con y para la Sociedad - H2020 en Almería](#)
- [16 March - 2016: Celtic-Plus Proposer's Day in CDTI \(Madrid, Spain\)](#)
- [16 March - Infoday ICT19-2017 Media and Content Convergence \(Brussels, Spain\)](#)
- [12 April - Jornada de Trabajo sobre las novedades y Aspectos Legales y Financieros más relevantes en acciones de H2020 \(Ministerio de Economía y Competitividad, Madrid\)](#)

- [12 April - Workshop on Industrial Technologies for Regional Growth \(Brussels, Belgium\)](#)
- [22-24 June - European Conference Industrial Technologies - Creating a Smart Europe \(Amsterdam, The Netherlands\)](#)
- [7-10 September - ANTS2016: 10th International Conference on Swarm Intelligence \(Brussels, Belgium\)](#)

4. Noticias – Convocatorias

- [CONVOCATORIA MINERVA 2016 \(Abierta hasta el 16 de marzo\)](#)
Cualquier proyecto emprendedor o Empresa de Base Tecnológica (ETB) **vinculada al sector de las Tecnologías de la Información y las Comunicaciones (TIC) puede participar en Minerva**. La idea debe tener clara orientación a mercado y la posibilidad de desarrollar un Producto Mínimo Viable que pueda ser testado en un periodo de tiempo razonable.
- [RETOS SALUD ANDALUCÍA: Desarrolla en equipo una APP para dar solución a un problema de salud](#)
- [Nueva herramienta de la Comisión para conocer el estado del arte de las tecnologías y ayudar a innovar](#)
- [Oportunidades financiación Compra Pública Innovadora en H2020 para 2016-2017](#)
- [Jornada/taller colaboración tecnológica con EEUU - CDTI – 06/04/16](#)
- [Misión Tecnológica a EUREKA Innovation Week - Temática Smart Cities \(Estocolmo, Suecia\). Bolsa de viaje a través de CDTI \(25-29 de abril 2016\)](#)

Si estás interesado en ampliar información, identificar otros eventos o contactar con algunas de las propuestas de cooperación que se incluyen en este boletín, debes contactar con:

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Research & Development Request

H2020-FTIPilot-2016. Industrial partner sought for development of a devulcanization process for industrial valuable rubber resource from tyres

Summary

A technological centre from Spain is preparing a project proposal to be submitted to H2020-Fast Track to Innovation Pilot call. The aim of this project is to recycle rubber from End of Life Tyres (ELTs) and make it suitable for its use in industrial manufacturing of some rubber goods, such as shoe sole, gaskets.... The consortium is searching for an industrial partner. It must be a rubber compounder with infrastructure to elaborate rubber masterbatches and formulations for further vulcanization.

Creation Date	01 February 2016
Last Update	10 February 2016
Expiration Date	10 February 2017
Reference	RDES20160129002

Details

Description

Global competition for resources is increasing. Supply concentration of resources, particularly critical raw materials outside the European Union, makes European industry and society dependent on imports and increasingly vulnerable to high prices, market volatility, and the political situation in supplying countries. These are the circumstances of EU producers of rubber goods, which are the third world consumers in virgin and synthetic rubber. Currently there isn't any industrial real solution that allows reuse the End of Life Tyres (ELT) rubber as an industrial raw material to manufacture vulcanized products, losing high potential to replace raw rubber in a lot of industrial applications.

The main objective of the project is to develop a devulcanization pilot prototype process as well as the development of suitable formulas for its industrial application in rubber industry processes.

The main difficulty for the ELT recycle is due to the inner structure that generates the vulcanization process for tyre manufacture. Vulcanization is a process whereby virgin and synthetic rubber, in sulfur and heat presence, becomes stiffer and confers desired shape. This process creates a three-dimensional net, some C-H bonds are replaced by new C-S bonds, linking up polymeric chains. The cured rubber is thermosetting and this is irreversible if the crosslink sulfur bonds are not removed.

Existing recycling processes which achieve the scission of sulfur cross-link bonds also induce polymer chain degradation, causing loss of mechanical properties and thus limiting the

usefulness. This project results will allow breaking sulfur bonds selectively, obtaining a rubber source with properties similar to the raw rubber, and making it suitable for its use as a raw material in the manufacturing of a lot of rubber goods.

The project will be submitted to the first cut-off of Fast Track to Innovation 2016 call under Horizon 2020 Programme.

The project already has 2 industrial partners and 2 research organizations.

The consortium is searching for an European industrial partner to carry out formulations of recycled rubber, neither Spanish nor Belgian.

Timescales:

Official deadline for the call: 15 March 2016.

Deadline for the expression of interest: 1 March 2016.

Anticipated duration of the project: 24 months.

Advantages and Innovations

This project represents a great market opportunity since the output product will fulfil a market demand not currently covered. The consortium will develop a new technology that starting from an abundant feedstock will offer a stable price and good quality rubber recycled source to the rubber goods manufacturers which could partially replace raw rubber regular sources.

Technical Specification or Expertise Sought

The company sought must elaborate masterbatches of rubber recycled from End-of-life tyres and raw rubber in order to create formulations for further re-vulcanization to manufacture rubber goods such as shoe sole, gaskets, conveyor belts, tubes, pipes, sheet and tyres retreading.

Stage of Development

Proposal under development

IPR Status

Secret Know-how

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

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Open for EOI : **Yes**

Client

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The consortium is searching for an european industrial partner, neither Spanish nor Belgian.

It is highly recommended to have a wide European sales net and also at international level. Its role will be to carry out formulations of recycled rubber in order to produce customized masterbatches to offer to their clients.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

ERANet LAC Joint Call 2015-2016: R&D institutions and companies experienced in solar thermal energy & energy storage technologies

Summary

A Spanish university is preparing a proposal to ERANet LAC Joint Call 2015-2016 - Topic #06: "Solar thermal energy - Energy storage technologies". The project aims at demonstrating in place the cost savings and environmental benefits resulting from thermal energy storage using Phase Change Materials integrated in underfloor heating systems using solar-heated water. R&D institutions and companies from EU and Latin American countries experienced in this field are sought to complete the consortium.

Creation Date	02 February 2016
Last Update	23 February 2016
Expiration Date	10 February 2017
Reference	RDES20160202001

Details

Description

Project Summary:

The aim of the project is the demonstration in place of the cost savings and environmental benefits resulting from thermal energy storage using Phase Change Materials (PCM) integrated in underfloor heating systems using solar-heated water. The proposed technology combines sensible heat storage (in floor materials with high thermal inertia) and latent heat (in PCM). The project specific objectives include: (i) search of the best way to integrate PCM with the heat pipes and the floor materials; (ii) design and manufacturing of the new modules of underfloor heating with PCM; (iii) modelling and characterization of the thermal behaviour of the new system; (iv) testing of two full-scale prototypes (in two CELAC - Community of Latin American and Caribbean States- countries); and (v) studies of the potential for replication of the new system, the economic benefit and the commercialization strategy, in both CELAC countries.

Competences offered:

The Spanish partner (SPA) would carry out the following tasks:

1. Coordination of the project
2. Definition of the system concept and setup
3. Specifications of system, equipment and ICT
4. Thermal model of the new system
5. Mechanical engineering of the floor modules
6. Characterization of prototypes of case studies #1 & #2
7. Technical evaluation of performance & energy savings
8. IPR Handling and Innovation Management

Competences looked for:

The proposer (P#1) seeks partners that can add value to the proposal. The ideal partners are companies not too small or R&D institutions, but the proposer is open to any suggestion (it is very important that each potential partner check the financing conditions of its country, since some countries only fund R&D institutions and not private companies; please consult your case in this link: http://eranet-lac.eu/Joint_Calls.php#Announcements).

The project coordinator role would be played by the Spanish University (P#1). The consortium is expected to be integrated by 4 partners in total. We are looking for one partner from another EU country different from Spain (P#2), one partner from one CELAC country (P#3) and one partner from another CELAC different country (P#4), to carry out the following respective tasks:

P#2 (a SME is preferred, but not compulsory):

1. Definition of setup and tests for case studies #1 & #2
2. Control system development
3. Design of the overall system of case studies #1 & #2
4. Manufacturing of prototypes for case studies #1 & #2
5. Data collection, preparation, analysis and reconciliation
6. Conclusions on economic impact and marketability
7. Plan for exploitation of the projects results

P#3 (a University, Research Centre or SME):

1. On-site installation of the prototype of case study #1
2. Tests of the prototype of case study #1
3. Study of potential replication & take-up in that CELAC country
4. Coordination of the Communication & Dissemination activities

P#4 (a University, Research Centre or SME):

1. On-site installation of the prototype of case study #2
2. Tests of the prototype of case study #2
3. Study of potential replication & take-up in that other CELAC country

Some help from P#2 to P#3 and P#4 would be necessary for solving the potential problems that may arise during the tests.

Technical support for architectural issues is planned to be subcontracted by the two CELAC countries (P#3 and P#4) to an architectural firm, with a cost allocation of 15% of the respective budgets of those two partners.

Topic: Solar thermal energy - Energy storage technologies

Funding rate: 100%

Call deadline: 10th March 2016.

Deadline for expressions of interest: 20th February 2016.

Project duration: 36 months.

Estimated budget: 500.000 € (maximum).

Advantages and Innovations

The expected impacts of the project, for both regions (Europe and Latin America), are:

- Counting on new technologies for storing solar energy
- Generating potential for a wider use of them.
- Lowering its costs.
- Increasing the use of solar energy in all sectors.
- Contributing to transform the global energy system.

Technical Specification or Expertise Sought

We are looking for one partner from another EU country different from Spain (P#2), one partner from one CELAC country (P#3) and one partner from another CELAC different country (P#4), to carry out the following respective tasks:

P#2 (a SME is preferred, but not compulsory):

1. Definition of setup and tests for case studies #1 & #2
2. Control system development
3. Design of the overall system of case studies #1 & #2
4. Manufacturing of prototypes for case studies #1 & #2
5. Data collection, preparation, analysis and reconciliation
6. Conclusions on economic impact and marketability
7. Plan for exploitation of the projects results

P#3 (a University, Research Centre or SME):

1. On-site installation of the prototype of case study #1
2. Tests of the prototype of case study #1
3. Study of potential replication & take-up in that CELAC country
4. Coordination of the Communication & Dissemination activities

P#4 (a University, Research Centre or SME):

1. On-site installation of the prototype of case study #2
2. Tests of the prototype of case study #2
3. Study of potential replication & take-up in that other CELAC country

Some help from P#2 to P#3 and P#4 would be necessary for solving the potential problems that may arise during the tests.

Technical support for architectural issues is planned to be subcontracted by the two CELAC countries (P#3 and P#4) to an architectural firm, with a cost allocation of 15% of the respective budgets of those two partners.

Stage of Development

Proposal under development

IPR Status

Secret Know-how, Design Rights

Comment Regarding IPR status

All participants of the consortium will sign a Consortium Agreement (CA), to clarify the potential Intellectual Property Rights (IPR) matters (such as licensing in, licensing out, patents and exploitation strategy). The CA will be sent to the call secretariat before 31st January 2017. The CA will be based on the official templates (<http://www.desca-2020.eu/>) and modified according to the specific needs of the consortium.

Network Contact

Issuing Partner

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Open for EOI : **No**

Client

Languages Spoken

English
French
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The proposer (Spanish University) seeks partners that can add value to the proposal. The ideal partners are companies not too small or R&D institutions, but the proposer is open to any suggestion (it is very important that each potential partner check the financing conditions of its country, since some countries only fund R&D institutions and not private companies; please consult your case in this link: http://eranet-lac.eu/Joint_Calls.php#Announcements).

The project coordinator role would be played by the Spanish University.

The consortium is expected to be integrated by 4 partners in total. The following partners are being sought to complete the consortium:

+ R&D institution or SME (from another EU country different from Spain): To design the control system and manufacture the system prototypes. This company should be also able to market the resulting system.

+ R&D institution or SME (from one CELAC country): To study the potential replication and take-up in Chile and to test the prototype of the system in a pilot facility in Chile.

+ R&D institution or SME (from another CELAC different country): To study the potential replication and take-up in Chile and to test the prototype of the system in a pilot facility in Peru.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

FAST TRACK TO INNOVATION: Companies or technological centres for the manufacturing of confocal fluorescence microscope with miniaturization capacity

Summary

A Spanish research centre specialized in the field of health sciences is looking for partners for a Fast Track to Innovation Pilot proposal. The objective is the development of a new micro installation in order to test the cytotoxic capacity of antitumor compounds in microgravity. They are looking for companies or technological centres with capacity of manufacturing a confocal fluorescence microscope with miniaturization capacity.

Creation Date	10 February 2016
Last Update	25 February 2016
Expiration Date	25 February 2017
Reference	RDES20160210001

Details

Description

A Spanish research centre is specialized in the field of health sciences. The centre was born in 2007 and has a total building surface area of 12,137 m², of which more than 4,000 m² are directly devoted to research activities. The facilities are vital for research advances in the field of genomics, proteomics and transcriptomics.

The centre has a research area in the field of oncology which is on the constant search for improvements in cancer treatments. Some scientific advances have shown promising developments in the fight against cancer using techniques as microgravity.

The centre is preparing a project proposal to a Fast Track to Innovation call. The aim of the project is the development of a new micro installation in order to test the cytotoxic capacity of antitumor compounds in microgravity. For the successful development of the project, the centre is looking for partners, companies or technological centres, with technical capacity for the manufacturing of a confocal fluorescence microscope with miniaturization capacity.

The proposal is coordinated by the Spanish research centre and is currently gathering three other industrial partners.

Call deadline: 1st June 2016.

Deadline for receiving expressions of interest: 1st May 2016.

Project duration: 2 years.

Technical Specification or Expertise Sought

The partner should have technical capacity for the manufacturing of a confocal fluorescence microscope with miniaturization capacity. This microscope should capture and analyze fluorescent images (in red and green areas of the spectrum) and should allow the automatic input and output of the cameras in the experiment.

Stage of Development

Proposal under development

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type of partner sought: Industry, technological centre.

Specific area of activity of the partner: Manufacturer of confocal fluorescence microscopes.

Task to be performed: The searched partner should collaborate in the manufacturing of a

miniature microscope. This microscope should capture and analyze fluorescent images (in red and green areas of the spectrum) and should allow the automatic input and output of the cameras in the experiment.

EU / International project experience: Previous experience in international projects development is not necessary but will be positively evaluated.

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

ERA-NET WaterWorks: Companies and R&D institutions with a strong background on water balance and data analysis

Summary

A Spanish engineering company is coordinating a proposal for the ERA-NET WaterWorks call. The aim of the project is to develop an innovative system that predicts the water balance in the basin taking into account many sources of information. The results of the project will be used in the agriculture and forestry sectors. The partners sought are companies and R&D institutions with a strong background on water balance and data analysis.

Creation Date	10 February 2016
Last Update	17 February 2016
Expiration Date	17 February 2017
Reference	RDES20160210002

Details

Description

The hydrological system is potentially very sensitive to changes in climate. Changes in precipitation affect the magnitude and timing of runoff and the frequency and intensity of floods and droughts; changes in temperature result in changes in evapotranspiration, soil moisture, and infiltration. The resulting changes in surface wetness, reflectivity, and vegetation affect evapotranspiration and the formation of clouds, as well as surface net radiation and precipitation. Therefore, many factors should be taken into account.

Many sources of information will be considered in the water balance system. These sources will be acquired and processed using a Big Data architecture to have indicators in real-time.

Advanced and intelligent data analysis techniques will be used as computer vision techniques or artificial intelligence algorithms.

Some of the sources information considered are:

- External services: Weather web services, Gauging stations, local weather stations, etc.

- Installed sensors: pluviometers, wind speed, ambient temperature, soil temperature, environmental humidity, soil moisture, solar radiation, etc.

- Image analysis: satellite imagery analysis, vegetation indexes (NDVI, NDWI, ...), sky images, cloud tracking, cloud coverage, etc.

Framework programme conditions:

http://www.waterjpi.eu/index.php?option=com_content&view=article&id=440&Itemid=1008

Deadline for expressions of interest: 11/03/2016

Call deadline: 19/04/2016

Project duration: 24-36 months

Type and role of the partners sought: Companies and R&D institutions with a strong background

on water balance and data analysis.

Stage of Development

Proposal under development

Comments Regarding Stage of Development

Consortium in progress

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Partners with a strong background on water balance and data analysis and eligible to participate in the ERA-NET WaterWorks2015

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

H2020 ICT-21-2016 Support technology transfer to the creative industries: an Italian SME is looking for SME to develop a Cloud SaaS tool

Summary

An Italian SME is looking for partners to participate to H2020 ICT-21-2016 Support technology transfer to the creative industries. The project consists in developing a Cloud SaaS (Software As A Service) tool to generate the templates for the personal animation and video. The partner should be an SME operating in the creative industry with a portfolio of end-users to which testing the "personalized Video" and Interactive Communication. Call deadline: 26th of April EoI deadline: 15th of April

Creation Date	24 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	RDIT20160224002

Details

Description

This project is led by an Italian SME, which developed a brand new technology for personalised animations, allowing the customisation of videos including text rendered throughout the animation and the related audio, based on a Cloud SaaS tool.

The SME proposing this project has the technical and operational skills to develop these new technologies, being capable of generating and delivering personalised animation in a very large quantity (e.g. billions of animations per year). Its experience and background in the production and delivery of documents in large quantities gives the possibility to integrate into a CCM (Customer Communication Management) platform these new types of documents, namely "personalized Video" and Interactive Communication in general.

Some pre-feasibility studies were already carried out for the generation of individual "personalized Video" and Interactive Communication which have shown good potentials. These new channels will increase customer retention, reduce paper-based communication and simplify the adoption of digital communication media by offering import and export facilities.

Personalised videos are already being used by large enterprises to more effectively deliver communications to their clients. Thanks to state-of-the-art technologies in video making and advanced algorithms, enterprises can offer to their clients fully customised information experience, such as personalised greetings and visual elements, guiding their customers through their dedicated communication. However, personalised videos are extremely expensive: an enterprise that invest in such a distribution channel must face an average cost of \$ 0,3 per view, which comes after a template designing and realisation phase which can cost up to \$100.000. Clearly, SMEs are cut out of this market. The high costs that enterprise must pay to the leading providers are justified by the fact that all views are generated on the fly when the

user accesses her own personalised video, and processed on servers property of the leading providers. Thus, the video providers must maintain a highly stable and responsive set of servers, which inevitably has costs.

The project can revolutionise the approach, offering personalised video, which can be processed directly at client side, hence removing the needs for expensive servers. This will allow to considerably reducing the costs for the clients, opening the market of personalised video also to SME's. Moreover, the client side video is suitable for mobiles, making the proposal more enticing to a large customer base.

Call deadline: 26th of April

Eol deadline: 15th of April

Advantages and Innovations

The project aims to develop new forms of customised and personalised communication channels, such as interactive and personalised digital videos.

The main advantage of this innovation is that the personal animation directly communicate with customers and end-users (e.g. in energy, telecommunications sectors as well as in public utilities, etc.), providing periodic and/or special communications.

Examples of this application could be: on-boarding communication for new customers, periodic communication connected to (e-)billing, personal and customised promotions, etc.

The innovative aspects will be protected by a patent to request to the European Patent Office.

Technical Specification or Expertise Sought

The ideal partner, operating in the creative industries, will use and test the tool to generate animations and videos for their customers, since the project aim is to co-design the tool to better adapt it to the needs of the creative industries.

Stage of Development

Under development/lab tested

IPR Status

Other

Comment Regarding IPR status

A patent to request to the European Patent Office will protect all the innovative aspects of the project.

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

Type of Partner Sought:

- not-micro SME operating in the creative industry with a portfolio of end-users to which testing the pVideo and Interactive Communication

Tasks to be performed by the Partner Sought:

- co-designing the tool to better adapt it to the needs of the creative industries
- using and testing the tool to generate appropriate animations for its own customers
- bringing the innovation activities and liaising with new end-users
- ensuring that the project activities respond to the market demand

Type and Size of Partner Sought

SME 11-50, SME 51-250

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

Development of a new T-commerce technology for TV shopping

Summary

A Korean SME specializing in TV applications (Interactive data broadcasting systems) is preparing an international joint R&D proposal under the EUREKA programme. The project is about developing a new T-commerce technology for TV shopping. They are looking for a partner who can analyze set top box log and big data or develop a numbers-screen system. The proposal should be submitted by the third quarter of 2016.

Creation Date	03 February 2016
Last Update	02 March 2016
Expiration Date	15 February 2017
Reference	RDKR20160203001

Details

Description

A report, The Future of TV shopping - Key Trends and Market Forecasts to 2017, by Gold Media shows the development of the four most significant European teleshopping markets, and they are Germany, France, Great Britain and Italy.

Also, the study provides an overview of the market situation, business models, market players that teleshopping trends, including Smart TV, Video shopping or shopping through social media and mobile apps are growing bigger and bigger.

A Korean SME specializing in interactive data broadcasting system has a great interest in this market and is willing to develop a new technology regarding T-commerce for TV shopping with a European partner who could provide a technology as described below.

[Technologies that the Korean SME has]

1. Purchasing products by remote-control on TV
2. Sending push (personal) message from TV to Smartphone

[Technologies that should be co-developed]

3. Statistical analysis of each customer's STB(Set-Top-Box)
4. Multi-channel marketing system on TV
5. Displaying products on TV in real time
6. Standardization of N-Screen development (TV, Smartphone, Computer)

A European partner should be a SME or a big company.

The name of the project is "Development of a new T-commerce technology for TV shopping", and the duration of this project will be one year.

This Korea SME wants to submit a EUREKA project by the end of September, 2016 with a European company. Accordingly, the deadline of the EOI will be at the latest end of August, 2016

Advantages and Innovations

- This service will enable TV viewers to purchase products in real time direct from their TVs
- Notifications will appear on the screen with a brief presentation of products featured on programmes airing at that time and viewers will be able to purchase the products via their remote controls.
- T-commerce service provider can control exposed products on TV by regional groups. For instance, the service provider can expose different products at the same time by region using T-Commerce when the company is simulcasting with many other countries.
- Help the customer to shop on multi-devices quickly and easily.
- A customer can purchase the products on TV directly, comparing the price of products on a smart phone at the same time

Stage of Development

Project already started

Comments Regarding Stage of Development

The Korean SME has already finished the field test of the new T-Commerce technology in Korea. But they need to analyse standardization of Europe's TV STB(Set-top-box).

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

South Korea

Partner Sought

Type and Role of Partner Sought

- Type of partner sought : an SME or a large company
- Specific area of activity of the partner : T-Commerce, TV & Mobile application, ICT, Interactive data broadcasting
- Task to be performed :
 - analyze set top box log and big data (or)
 - develop a numbers-screen system (or)
 - develop a TV or online payment system

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

Very Urgent - H2020 Fast Track to Innovation Pilot 2016: Heat Interface Unit for central space heating and domestic hot water preparation systems. Three industrial partners sought to complete the consortium

Summary

An Italian SME is going to submit a proposal under the call H2020 – Fast Track to Innovation Pilot 2016. The goal of the project is the design of an indirect Heat Interface Unit fulfilling the needs of a modern household in a multi-dwelling complex with central heating system. The company looks for three industrial partners: one with experience in electronics and control, another in brand management advertising/promotion and a last one able to provide pilot installations for field testing.

Creation Date	15 February 2016
Last Update	18 February 2016
Expiration Date	18 February 2017
Reference	RDIT20160212001

Details

Description

An Italian SME located in Lombardy is developing a Heat Interface Unit (HIU) that provides on-demand heating and hot water by two integrated heat exchangers, whose instantaneous power is adjusted by valves modulated by smart electronic equipment.

In multi-dwelling residential complexes, central heating solutions are more and more encouraged, since using a number of local heat generators proved to be less cost effective and more polluting than using a single appliance of equal efficiency. Furthermore, local solutions do not allow to easily integrate different energy sources, like renewable or alternative sources. To ensure each user the necessary independence, a HIU can be installed at the entrance of each household including regulation, control and metering devices. HIUs equipped with heat exchangers are particularly interesting because they provide on-demand hot water, prepared instantaneously for each user without the need for cylinder storage.

The purpose of the proposal to be submitted under the call H2020 - Fast Track to Innovation Pilot 2016, is to develop and put forth an optimised HIU fulfilling the needs of a modern household. Solutions adopted to optimise its operation include the possibility to exert differential pressure control over different segments of the system, the use of two heat exchangers instead of just one (indirect HIU), and the control of domestic hot water temperature and heating fluid temperature by means of modulating two-port valves. In this configuration, each valve is installed on the primary side of the relative heat exchanger and adjusts the boiler flow rate so to keep the secondary fluid flow temperature stable to the desired value. This solution allows to save pumping energy with respect to fixed-flow rate configurations and optimises the temperature difference across the primary side by keeping the return temperature as low as

possible, which improves operation of condensing boilers and is often a prerequisite by district heating contractors.

The use of two-port valves for temperature control requires the development of a dedicated electronic equipment that must be capable of independently managing the services and to easily interconnect with smart systems for remote control.

System performances will be assessed by a full test campaign including field testing.

Making the product known and giving the operators information on system requirements, correct use and implications of choosing this system arrangement are of fundamental importance, too.

This information process can be tackled by transparent advertising campaigns and by widespread training sessions tailored to all involved stakeholders – designer, installer, servicer and end user.

Project's aims

- Design of the mechanical and hydraulic equipment: development and engineering of components, with particular attention to control valves; design of the assembly;
- Development of a dedicated electronic control equipment, consisting of electronic servomotors, sensors and controllers;
- Prototype manufacturing;
- Full test campaign to assess the HIU performances and to define product in details, including field testing;
- Supply chain definition;
- Production definition;
- Creation of technical, marketing and advertising documentation;
- Planning of training sessions targeted at technical designers, installers, servicers; Creation of installation, commissioning, technical assistance after-sale services;
- Definition and delivery of information sessions targeted at the end users.

The company is looking for 3 industrial partners able to provide the following expertise and know-how:

- 1 Experience in electronics and control, building automation and human interfaces
- 2 Experience in brand management, advertising, promotion, and training program development
- 3 Possibility to provide one or more pilot installations to field-test the new units.

Official call Deadline: 15-03-2016

Internal deadline for EOIs: 01/03/2016.

Stage of Development

Proposal under development

IPR Status

Secret Know-how, Design Rights

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

Partners with the following profile are sought:

Partner 1

- Type: Enterprise
- Activity: Development of a dedicated electronic control equipment
- Role: Design and optimisation of the electronic equipment required to accurately control modulating valves according to output temperature. This includes/integrates servomotors, sensors and controllers with smart capabilities for remote control.

Partner 2

- Type: Enterprise
- Activity: Product-related services
- Role: Promotion of the product diffusion by means of advertising, information campaigns and training sessions. Creating an after-sale and technical assistance service.

Partner 3

- Type: Enterprise
- Activity: Providing pilot installations for field test
- Role: Making arrangements with building contractors to have the HIUs installed in pilot plants, to the aim of field-test the new product and collect relevant data.

Type and Size of Partner Sought

SME 11-50, SME <10,>500 MNE, SME 51-250,>500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

URGENT: ERASMUS+ KA2 2016, capacity building in the field of higher education, German higher education institutions (tertiary level) sought to join as a partner

Summary

A large Dutch higher education institution (tertiary level) has developed a proposal for the ERASMUS+ KA2 call. The institution is still looking for German higher education institutions (tertiary level) to join as a partner. The proposal is focussed on the educating transition to a circular economy for European SMEs in high tech and knowledge-intensive services (KIS) sectors. The project will test innovative pedagogical approaches, curriculum development and skills assessment.

Creation Date	23 February 2016
Last Update	01 March 2016
Expiration Date	01 March 2017
Reference	RDNL20160215001

Details

Description

The Dutch higher education institution (tertiary level) with over 30,000 students in programmes in art, technology, media and information technology, health, behaviour and society, education, and (international) business is coordinating the proposal for the ERASMUS+ KA2 call.

The proposal is focussed on the educating transition to a circular economy for European SMEs in high tech and knowledge-intensive services (KIS) sectors.

The objectives pursued are to improve the quality and relevance of higher education institutions (HEIs) with respect to their curricula related to sustainability at large and Circular Economy (CE) more particularly. Also, regarding the relevancy of HEIs, the project aims at a tighter interaction with small and medium-size enterprises (SMEs) in the sectors that are of great importance for the European Union (EU): the high technology and knowledge intense services (KIS) sectors.

It aims at supporting the implementation of the 2013 communication on opening up education by the development of new modes of delivery (e.g. MOOCs (Massive Open Online Course) and an 'in the cloud' environment). It recognizes the need for places where staff, students and SMEs can meet, therefore blended learning modules will be the starting points for development.

Ultimately, the project will test innovative pedagogical approaches (e.g. blended learning and in the cloud knowledge and information sharing), curriculum development and skills assessment and will result in new business and educational models.

The Dutch Higher education institution (coordinator) will be responsible for overall project

management and collection of data from the Dutch SME's in high tech and KIS sectors.

The proposal already involves 7 partners from 5 countries. The role of the sought German partner will include selection and collection of data of German SME's, co-development of new modules related to circular economy, and setting up a circular economy transition agency at their institution. Connecting HEIs (students) and SMEs to analyse the total value chain in order to identify those aspects that will generate the fastest results when changes to the circular business models will be made (including: commercial activities, manufacturing (including product design and innovation), logistics and procurement).

The deadline for project submission is 31st of March, 2016
Interested German higher education institutions should respond to this posting as soon as possible or before March 25, 2016.

The envisaged duration of the project is up to 36 months, ending on September 2019.

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Netherlands

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: German higher educational institution (tertiary education) as a project partner for research cooperation.
- Specific area of activity of the partner: Sustainability
- Field of expertise/experience: Blended learning concepts, serious gaming
- Task to be performed by the partner sought:

Selection and collection of data of German SME's, co-development of new modules related to circular economy, and setting up a circular economy transition agency at their institution.

Connecting HEIs (students) and SMEs to analyse and identify those aspects that will generate the fastest results to circular business models changes.

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

H2020 GV-04-2017 Next generation electric drivetrains for fully electric vehicles, focusing on high efficiency and low cost - UK company seeking vehicle manufacturers, primary suppliers or technology providers.

Summary

UK company based in the north east of England is seeking vehicle manufacturers, primary suppliers or technology providers to be partners in this H2020-GV-2016-2017 call. The project aim is to develop innovative electric drivetrains that will take into account design for manufacturing, low weight and material cost.

Creation Date	03 February 2016
Last Update	15 February 2016
Expiration Date	15 February 2017
Reference	RDUK20160108005

Details

Description

This UK company specialises in the design and manufacture of electrified ancillary systems for electric vehicle powertrains delivering powertrain efficiency improvement through reduced parasitic losses and improved thermal management.

The company is looking for partners to work on a proposal for this Horizon 2020 call to develop a new more efficient highly integrated electric vehicle powertrain with reduced parasitic losses and a lower cost.

Project Challenge

Developments have already been undertaken in recent years to optimise drivetrain components for fully electric vehicles (FEVs), in particular in terms of efficient use and recovery of energy. However, the next generation of electric drivetrains should be conceived to also take into account design for manufacturing, low weight and material cost.

Proposals should address one or several of the following aspects;

—Functional system integration of electric machines (e.g. high speed motors) with transmissions, optimisation of energy recovery with the integration of braking systems.

—Lower cost electric machines through reduced need for rare earth magnets and designs optimised for lower cost manufacturing processes.

—Integration of power electronics with battery charging functions together with associated control and of wide bandgap semiconductors providing high temperature, high power density, and high frequency capabilities.

—Modular electric power train components compatible with both full electric and hybrid applications, sub-systems and topologies with enhanced NVH[1], reliability, safety and fault tolerance and robustness, fit for mass manufacturing.

Expected impact of the project will lead to the next generation electric drives, with reduced costs through systems integration and optimised design and configuration of motors and power electronics for volume manufacturing processes. Therefore, actions under this topic are expected to contribute to the achievement of climate action and sustainable development objectives.

It is envisioned that the partners will collaborate to develop a new highly modular electric vehicle drivetrain with low cost power electronics and electrical machines. The drivetrain will use advanced thermal and lubrication management systems to reduce parasitic losses and facilitate the use of lower cost system architecture.

The drivetrain could use a high speed electrical machine and gearbox, or a low speed electrical machine with a simplified gearbox. It is envisioned that the design will use electronic control to replace the mechanical differential and that a modular motor unit and gearbox with synchronisation capability will provide drive to each wheel.

Company contribution to the project

The company has expertise in electrified ancillary systems, advanced thermal management, parasitic loss reduction, power electronics design, systems integration, multiple motor control strategies including e-diff, distributed control strategies, productionisation and manufacturability of mechatronic systems

Partner Sought

The company is seeking vehicle manufacturers from either the on-highway or off-highway sector, primary suppliers and technology developers with expertise to support development of a novel motor or battery system who would be interested in collaborating on this H2020 project to develop a new lower cost powertrain solution.

Technology developers of interest would be involved in the design of high efficiency and low cost motors and inverters and gearbox design.

Deadline for call 1st February 2017

Deadline for EOI 30th November 2016

Stage of Development

Concept stage

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

Partners Sought

The company is seeking vehicle manufacturers from either the on-highway or off-highway sector, primary suppliers and technology developers who would be interested in collaborating on a new lower cost powertrain solution to collaborate on a project.

Technology developers of interest would be involved in the innovative design of high efficiency and low cost motors and inverters and gearbox design.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

H2020-FTIPilot-2016: Industrial partners and public transportation operators are sought to finalize the development of a green urban bus

Summary

A French SME is looking for industrial partners and public transportation operators for a Fast Track to Innovation project. The partners are more likely buses manufacturers, engineering companies, public transportation operators, cities, that are interested in developing, implementing and testing a plug in electric urban bus. The French SME is also considering applying to the SME Instrument – phase 2.

Creation Date	22 January 2016
Last Update	12 February 2016
Expiration Date	12 February 2017
Reference	RDFR20160115001

Details

Description

Buses represent 80% of the total European transport; developing more sustainable buses will have a major impact on the environment. Today, even if electric and hybrid buses are more environmentally-friendly, charging time and classical hybrid power trains limit the autonomy and the efficacy of those buses.

The French SME has developed a unique concept based on a multi-hybrid system, coupling 3 different energy sources and a bi-modular frame (a module for passengers and another one for energy) allowing a full capacity usage of the vehicle.

The SME is a well-established SME with 3 main activities :

- car body shop,
- retrofitting of road and rail vehicles and interior
- interior design and refitting of shops and professionals premises

Based on its 60-year experience in refurbishing and retrofitting, and its collaboration with local authorities, the company decided to diversify its activity and to develop an innovative concept of green urban bus: the plug-in electric urban bus.

The first version of the bus has the following characteristics:

- Available in 2 lengths: 10 & 12 meters
- 90 people capacity (mid-size bus)
- 200 km autonomy

- Low energy consumption, reduced emissions
- No additional cost for the set-up of the bus
- Easy access for passengers with wheelchairs and mobility-impaired persons

For a Fast Track to Innovation project, the company is looking for industrial partners and public transportation operators interested in developing, testing and implementing a plug in electric urban bus:

- buses manufacturers
- engineering companies
- public transportation operators
- cities...

The company has targeted the June cut-off of the Fast Track to Innovation call but might apply to the following cut-off (October 2016), if the proposal is not ready.

Deadline for Expressions of Interest: 01/05/2016

The French SME is also considering applying to the SME Instrument – phase 2.

Advantages and Innovations

Current main innovative advantages of the bus are:

- Plug in hybrid & range extender
- Reduction of empty weight (around 20%)
- Full capacity usage of the vehicle
- Energy consumption, noise and CO2 emission of small cylinder engines
- “Connected vehicle” equipped with sensors to allow data collection
- Warranty of batteries: data collected allows the monitoring of the battery ageing
- Integrated SAE (Society of Automotive Engineers) standards- Equipped with on-board screen to display key parameters of the hybridisation and video feeds from on board cameras

Foreseen innovations:

- Full electric version
- Maintenance forecasting: bus operator will be provided with data collected by the network of on-board selected “calculators”
- Driver-aid system providing live support to the driver to optimise the usage capacities of the bus
- Optimization of energy consumption of the auxiliaries, including an highly efficient air conditioning system
- Development of algorithms to enhance the management of smart multi-hybridization
- Smart tools development for remote and advanced forecasting, based on a real time data exchange with the bus
- Hydrogen / Fuel cell version
- Adaptation to right hand drive (if needed)

Technical Specification or Expertise Sought

Industrials partners and public transportation partners are sought to further develop, implement and test this new plug in electric urban bus.

Stage of Development

Already on the market

Comments Regarding Stage of Development

The first version of the bus, which was homologated in 2014, has already been delivered to 4 French cities (2015).

IPR Status

Patent(s) applied for but not yet granted, Patents granted

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
German
French

Client Country

France

Partner Sought

Type and Role of Partner Sought

Partners sought:

- Industrial partners: bus manufacturers, engineering companies (composites, fuel cell, maintenance forecasting...)
- Public transportation operators and cities interested in implementing green urban bus

Task to perform:

- Adapt the technology of the bus to different operations environments
- Finalize the development of the plug in electric urban bus

- Demonstrate and evaluate the bus performances in real operating conditions
- Development of new types of vehicle
- Demonstrate the benefits of hybrid electric buses in a mix urban/rural environment
- Cost benefit analysis of a hybrid electric bus compare to a pure electric bus

Type and Size of Partner Sought

R&D Institution, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Research & Development Request

Partners sought for future ERASMUS+ proposal - to support development of a multi-lingual platform to deliver accessible best practice e-learning into the land based sector and associated supply chains

Summary

A UK leading land based and sports educational college/university centre is seeking European academic/industry partners to form a land based European collaboration for an ERASMUS+ application, focus to develop a multi-lingual platform to deliver accessible best practice e-learning into the land based sectors (agriculture and horticulture for primary food production) and the supply chains in which they are involved. Partners sought with interest in fisheries, dairy and horticultural production.

Creation Date	08 February 2016
Last Update	16 February 2016
Expiration Date	16 February 2017
Reference	RDUK20160205001

Details

Description

A Land-Based Learning European Collaboration (LBLEC) is being drawn together to create the mechanisms and content to support a multi-lingual platform to deliver accessible best practice e-learning into the land based sector and the supply chains in which they are involved. Land-based industries refer to farming and forestry with an emphasis on agriculture and horticulture for primary food production and include (but not limited to):

- Agriculture - e.g. arable, dairy, livestock, horticulture, mixed farming, growing fruit and vegetables, agriculture and animal husbandry services.
- Wider land-based industries - amenity management, landscaping, animal care, aquaculture, environmental conservation, fresh produce processing through supply chain, arboriculture, forestry.

The supply of labour, skills and expertise in agriculture and the horticultural sectors has become a limiting European resource with workers moving across national borders to fill the seasonal and ever changing supply requirements of this increasingly diverse and technology focused sector. The transferability of appropriate skills and knowledge although recognised as an economic requirement for the sector, needs to have a common certification/professional standard and support mechanism to allow upskilling of the local, remote and mobile workforce in a way that is recognised by employers and educational organisations across Europe. It is aimed that LBLEC will provide the vehicle through its supporting partners to develop, engage and deliver the accessible structure and content required to establish common standards and continually improve the productivity of the increasingly diversified and mobile workforce across

the land based sector.

Key aims of LBLEC:

- Engagement of the wider university sector in the development of the land based sector and the establishment of an approach to cascade the appropriate technical knowledge and skills into the increasingly diversified rural economy
- Encouraging cross-border sharing of technical educational content and exchange of staff and students
- Identifying areas of development that are commercially important, food security/supply chain efficiency, environmental impact and staff productivity that would benefit from the LBLEC
- Finding/releasing available staff time to engage in the development and delivery of commercially/technically appropriate content to meet the future requirements of the sector
- Agree and set appropriate standards for the development/delivery of the content
- Establishing common educational/professional standards to benchmark against and improve productivity
- Improve accessibility to materials and direct online support to the general workforce as well as remote and isolated workers/communities

The ERASMUS+ application will focus on:

Key Action 1: Mobility of individuals

- Improving skills, employability and cultural awareness
- Mobility funding for staff and students

Key Action 2: Cooperation for innovation and exchange of good practice

- Organisations working together to improve provision for learners and shared innovative practice, e-learning and common standards covering content, curriculum and certification

The lead partner in the UK is a land-based and sports educational college/university supporting student development in agriculture, land and animal management.

Provisional deadline for expressions of interest is 11 March 2016.

Technical Specification or Expertise Sought

Further European partners are sought associated with individual colleges/universities or industry organisations with an interest highlighted in fisheries, dairy and horticultural production.

Stage of Development

Proposal under development

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

Existing consortia includes:

- A non land based UK university partner with expertise in new and innovative approaches at e-learning and the provision of out of lecture theatre academic support, delivery and certification, entrepreneurship, social enterprise and innovation at an international level.
- A land based colleges subscriber network aspiring to excellence with technical, curriculum and certification knowledge, instructional design support, source of staff and exchange student resources, benchmarking of quality standards and continuous improvement of educational delivery capabilities.
- Industry representation and support for improving workforce performance from two leading UK unions/associations with relevant skills and knowledge base, accessibility to a wider pool of qualified workers with knowledge or access to information on local production systems, technology and science.

Further European partners are sought associated with individual colleges/universities or industry organisations with similar skills to the ones described above and with an interest highlighted in fisheries, dairy and horticultural production.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Technology Offer

Comprehensive development services for radio-frequency, microwave, millimetre and submillimetre wave circuits, antennas and subsystems

Summary

A research group from a Spanish university specialised in high frequency technologies offers design, fabrication, assembly and measurement services for radio-frequency (RF), microwave, millimetre and submillimetre wave circuits, antennas and subsystems. Their proven expertise and state-of-the-art laboratory equipment enable the comprehensive development from initial specification to optimised prototype. Collaboration is offered through research cooperation, service or manufacturing agreements.

Creation Date	10 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20160210002

Details

Description

A Spanish research group, in the process of creating an R&D-intensive SME, offers its services for the design, fabrication, assembly and measurement of RF, microwave, millimetre and submillimetre wave circuits, antennas and subsystems.

The group offers comprehensive engineering services starting from customer concept or system-level performance specification, covering all the different stages in the development process, leading up to a verified prototype or integrated subsystem, ready for mass production.

The combined research and industrial background of the group has enabled it to address a diverse variety of projects in terms of technology readiness, ranging from basic research aimed at the experimental validation of novel concepts, to system integration, in which the objective is to fulfil a set of performance and budget requirements, using commercial tried-and-tested technology.

A selection of the offered services and capabilities in terms of design, fabrication, assembly, measurement and characterisation is outlined below.

DESIGN KNOW-HOW

The offered design expertise covers a wide range of complementary areas including, but not restricted to, the following:

- Antennas, arrays and beam forming networks

- Oscillators, amplifiers, phase shifters, etc.
- Frequency multipliers and harmonic mixers up to submillimetre wave frequencies
- Waveguide integrated assemblies
- 3D Textile integrated electronics
- System and subsystem integration

FABRICATION AND MEASUREMENT CAPABILITIES

The group has unrestricted access to and proficiency in the use of state-of-the-art fabrication, assembly and measurement facilities and equipment, such as:

- Precision milling and laser PCB patterning and cut-out
- Via hole electroplating
- Lithography and metal deposition
- Precision photopolymer-based stereolithography 3D printing
- Jacquard loom for the fabrication of 3D Textile integrated electronics prototypes
- Semiautomatic wire bonding and pick and place station
- Spectrum and Vector Network Analysers
- Extender heads for frequencies up to 330 GHz
- Probe station with integrated laser cutting for on-wafer measurements up to 330 GHz
- Spherical, cylindrical and planar range anechoic antenna characterisation

TYPES OF PARTNERSHIP CONSIDERED

Services agreement. The group offers its comprehensive technological services for the design, fabrication, assembly and measurement of RF, microwave, millimetre and submillimetre wave circuits, antennas and subsystems. These services have been subcontracted by multiple companies, primarily in the communications, aerospace and defence sectors.

Manufacturing agreement. Apart from the comprehensive development of solutions from concept to prototype, the different development stages design, fabrication, assembly and verification are also offered separately. Customer designs can be manufactured, assembled, measured and optimised (if required).

Research cooperation agreement. The group has been involved in a number of publicly funded R&D projects, both as a partner and as a subcontractor, and has taken part in the preparation of proposals for multiple international funding programmes, such as FP7, H2020, EUREKA, ESA, etc.

Advantages and Innovations

Comprehensive development of RF, microwave, millimetre and submillimetre wave circuits, antennas and subsystems, from customer concept or initial specification to optimised final prototype, ready for mass production.

Possibility of addressing both research intensive and market oriented projects, taking responsibility for the complete development process or specific stages thereof, such as design, fabrication, assembly and/or verification.

Availability of in-house state-of-the-art manufacture, assembly, measurement and characterisation of circuits and antennas.

Combination of traditional and novel fabrication technologies including micromachining, precision laser cutting, precision stereolithography-based 3D printing, 3D textile integrated electronics, etc.

Broad experience in proposal preparation and management of research projects funded through various international R&D programmes.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Potential partners could be companies, R&D institutes and/or academic institutions seeking manufacturing or services agreements to develop integrated subsystems, manufacture and test prototypes or design proof-of-concept experimental set-ups.

Additionally, potential partners could be companies or institutions in the process of preparing R&D project proposals, interested in subscribing a research cooperation agreement to develop a specific part of the project aligned with the areas of expertise outlined in this profile.

Type and Size of Partner Sought

SME 11-50, University, Inventor, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Services agreement
Manufacturing agreement
Research cooperation agreement

Technology Offer

Ultra-compact tunable fibre laser technology from Japan for licensing in the EU

Summary

A Japanese company is offering a licensing opportunity for a tunable laser. The laser system enables to downsize to 50mm (visible wavelength) or 20mm (near infrared) while a conventional system is over 100mm. The company is a technology transfer entity looking for EU partners interested in the commercialisation of research results which come from Japanese top universities. A licensing agreement will be considered with relevant partners with possibility of research cooperation.

Creation Date	04 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOJP20160203001

Details

Description

A Japanese company, specialised in technology transfer, is offering a licensing cooperation opportunity for tunable laser to partners in Germany (main target) and other EU countries.

The company is a technology transfer entity which handles around 500 inventions on an annual basis and is under a general contract with 10 Japanese universities. They are mandated to represents the universities in the licensing of newly developed technologies.

The company offers the technology of Ultra-Compact Tunable Fibre Laser.

The laser system enables to downsize to 50mm (visible wavelength) or 20mm (near infrared/IR wavelength) while a conventional laser system is over 100mm.

The system has a simple selection mechanism: for example, wavelength tunability of 20 nm is obtained by 130µm of output mirror linear adjustment. It is not possible to achieve the same result with a conventional mechanism such as a slit or mirror with an angle adjuster for the selected wavelength.

Tunable lasers are widely used in many applications, for example: medicine (surgical laser, photodynamic therapy or OCT (Optical coherence tomography), biology (Raman spectroscopy, flow cytometry) and optical measurement Systems (Atmosphere Radar).

They are looking for an industrial partner of any size in Europe with knowledge in the laser sector who would work together with them for the commercialization of this technology.

They mainly offer a licensing agreement for commercial use of the technology, but a research cooperation agreement may also be considered although not a priority for the moment and will be considered if the partner has a proven R&D knowledge in the laser technology.

Advantages and Innovations

The company is offering Ultra-Compact Tunable Fibre Laser technology utilising the chromatic aberration of the lens with the following features:

- Simple configuration with no grating or prism
- Compact laser system: succeeded in downsizing to 50mm (visible wavelength) or 20mm (close to infrared wavelength)

The technology has been developed to focus on downsizing. In conventional tunable laser systems, a spectroscopic part such as a grating or a prism is essential. These spectroscopic parts are recognised as a bottleneck for downsizing. Their design achieves ultra-compact tunable fibre laser system by removing conventional spectroscopic systems.

The technology enables the below characteristics:

1) More Compact

GRIN (Gradient-index) lens can substitute aspheric lens relay. It decreases the number of lenses compared to conventional products and shorten the cavity length.

2) Simple selection mechanism

Output mirror can be adjusted by a piezo based positioner (For example: Microminiature ultrasonic linear actuator).

3) Multiple use:

The core materials for the desired central wavelength can be chosen.

- Praseodymium (Pr) doped fibre laser (central wavelength (CW): 480nm, 520nm, 575nm, 605nm, 640nm, 720nm, 1300nm)
- Neodymium (Nd) doped fibre laser (CW: 900nm, 1060nm),
- Ytterbium (Yb) doped fibre laser (CW: 1060nm),
- Erbium (Er) doped fibre laser (CW: 500nm),
- Thulium (Tm) doped fibre laser (CW: 2000nm).

Putting a saturable absorber such as a graphene, on the output mirror (red circle in the attached figure), the laser can operate as a nano second Q-switch pulse mode or mode-locked tunable laser.

The utilisation of an amplifier improves output power for laser beam machining.

4) Compact Fibre medium

In visible range they can use 40mm waterproof fluoride glass as a laser medium. In near infrared range, the inventor already demonstrated 4 mm length Neodymium (Nd)-doped fibre laser. This short fibre was made by zeolite method.

Stage of Development

Prototype available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

They are currently applying for a patent internationally without involvement of individual country. It might be taking 1.5 - 2 years of time frame till their patent might be granted in a specific country

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Japan

Partner Sought

Type and Role of Partner Sought

The company is looking for industrial EU partners of any size with activities in the tunable laser sector that would be interested to start the commercialisation of the proposed new technology under a licensing agreement.

Should the EU partner have an R&D department in the laser technology they may also consider a research cooperation agreement to further develop the laser system although at this stage the licensing agreement is the main objective.

Type and Size of Partner Sought

SME 11-50,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

License agreement

Research cooperation agreement

Technology Offer

A manufacturing technology of micro wave absorbing ferrite sheet for NFC (near field communication)

Summary

A Korean SME has developed a manufacturing technology of ferrite sheet which absorbs and controls eddy electronic waves, occurred in the NFC such as mobile phones, wireless chargers, smart cards etc. It has a function to solve malfunction and noise. Furthermore, It can improve phone quality and reduce harmful effects on person's body. It is applicable to the diverse fields to produce flexible film sheet with ferrite. The license agreement, joint venture and technical cooperation are available.

Creation Date	03 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOKR20160203001

Details

Description

These days, it is necessary to solve the issues of electronic waves in a various areas like TVs, laptops, mobile phones, wireless chargers, electronic vehicles, military industries, etc. This Korean SME's main technology is manufacturing ferrite sheet to convert electromagnetic waves into heating energy. This technology has functions to absorb and control electromagnetic waves of eddy current, and through this, they can maximize the efficiency of NFC antenna module and the charging efficiency of wireless chargers. In order to enhance receiving efficiency of NFC antenna module and charging efficiency of wireless charger, they have developed related advanced process technologies. For example, they're making metal oxides into equal particles when mixing raw materials. And their these efforts meet the needs of the market. The Characteristics of Technology are below:

- The permeability of the product is equal ($130\pm 5\% \mu'$) on products and flexibility is excellent.
- The original price of the ferrite sheet is lower over 20% than those of others.
- ROI (return on investment) is more than 20% and the rate of production is also high.
- A wider range of thickness
- Variety of sheet sizes

Any enterprises who are interested in ferrite sheet for NFC are welcomed in the context of a licensing agreement or technology transfer or joint venture.

Advantages and Innovations

Advantages

- High-permeability($130\pm 5\% \mu'$) and low-loss rate($<3 \mu''$)

- Variety of sizes and thickness($t=50\sim 100\mu$)
- High production yield (70~80%)
- Low manufacturing cost of Ferrite
- High ROI(return of investment) (more than 20%)

Innovations

- A manufacturing technology of fine ferrite particles(particle size $800\text{nm}\sim 1.7\mu$)
- High efficiency plasticity technology on ferrite

Stage of Development

Already on the market

IPR Status

Patent(s) applied for but not yet granted

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

South Korea

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Companies or Individuals who runs manufacturing industry.
- Specific area of activity of the partner: Those who are doing associated with manufacturing technology or material technology would be fine, but others who are interested in this filed will be welcomed.
- Task to be performed: Licensing agreement or technology transfer or joint venture could be done. For technology transfer etc., certain funding ability would be needed.

Type of Partnership Considered

License agreement
Technical cooperation agreement
Joint venture agreement

Technology Offer

An intelligent wireless socket for integration and monitoring of all electrical devices in the home

Summary

A Macedonian company specialised in smart solutions for home automation has developed an intelligent plug & play wireless socket that enables integration and automation of electrical devices in the house. The solution can be controlled by mobile app and custom made LED touchscreen panel and offers various functionalities that provide multiple benefits including increased safety and substantial energy savings. The company is looking for partners for commercial agreement with technical assistance.

Creation Date	16 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	TOMK20160213001

Details

Description

Making homes “smart” is a growing trend that has gone from button-press security systems to controlling and observing the home from anywhere. Home automation solutions provide new level of control over how devices function and interact combining high-performing individual technologies for security, lighting, audio, and so much more, with simple and easy-to-use interface. Currently, there is a great variety of home automation systems or standalone solutions that users can select from according to their needs. One of the essential smart home components is the so-called smart socket that in principle represents an extension of the traditional wall socket that provides better control over the appliances and devices plugged into it. Most of these solutions already available on the market possess rather limited set of functionalities like activating and monitoring in real-time the connected home appliance(s) whereas the proposed solution does not only integrate numerous devices, but it also has multiple functionalities such as measuring energy consumption and setting up the desired temperature in the room.

The proposed intelligent socket enables wireless regulation of all electrical devices plugged in the existing electrical infrastructure and thus transforms the traditional electrical socket into a multi-functional automation device that can be controlled both remotely and manually by the touchscreen panel. It can be applied on the traditional socket by a simple plug and play method and can control all electrical devices while monitoring their power consumption in a convenient and maintenance-free way. It is operated from a central hub connected to the home router and communicates with the devices via wireless protected access protocol. Once plugged and connected to the central hub, the solution is operational only in couple of minutes whereas the mobile application automatically detects and installs all physically connected devices in the Wi-Fi network. Some of the technical specifications of the proposed wireless socket include:

- Size: 70*120*65mm, Weight: 200 grams

- Plug and play installation
- 2.4 GHz RF connection with central hub
- Touchscreen panel with LED indicators
- USB plug
- Motion detector
- Temperature sensor
- Ambient light

The main benefits from using the device include increased energy efficiency and cost savings achieved by the better monitoring of the temperature and energy use and remote shutting down of forgotten active electrical devices as well as improved safety by providing security alerts when motion in the house is registered.

The Macedonian company is specialised in developing smart solutions for automation of both homes and industrial facilities utilising Internet of Things (IoT) concept. As the domestic market of smart home appliances and home automation solutions is way too limited, the company needs to go international in order to fully utilise the potentials of its innovative solutions. In this regard, the company is interested in finding partners that would facilitate the introduction of the proposed solution at the international market by its integration in their existing systems or product portfolio. This will enable both parties to benefit from increased market access, improved customer satisfaction and higher financial gains. The most preferred and suitable type of cooperation is the commercial agreement with technical assistance under which the Macedonian company will enable potential partners to further utilise the solution while providing the necessary technical support for installing and operation of the product.

Advantages and Innovations

- High level of control by remotely turning on & off all electrical appliances in the house;
- Universal charger;
- USB-port that allows charging smart phones and tablet devices;
- Increased safety by activating the motion sensor and receiving instant security alerts;
- Enabling varied timer schedules to automatically turn on lights in order to simulate presence;
- Real time overview of all appliances in the house by receiving push notifications;
- Monitoring electricity usage and energy calculation of any plugged appliance;
- Regulation of heating temperature for each room separately. Device automatically regulates the preset desired temperature and when detects abrupt temperature decrease it turns the heating down.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English
Macedonian

Client Country

Macedonia, The former Yugoslav Republic of

Partner Sought

Type and Role of Partner Sought

Type of partner sought: SMEs, IT & Electrical industry

Role of the partner sought: Potential partners should be SMEs working in the field of development and implementation of home automation systems interested in introducing the proposed solution in their existing systems. The industrial partners should be manufacturers of electrical devices interested in expanding their current offering by including innovative and smart solutions.

Tasks to be performed: Both type of potential partner should engage in commercial agreement with technical assistance that will enable introduction of the proposed solution into their existing or product portfolios. During the process the Macedonian company will provide the necessary technical support and assistance.

Type and Size of Partner Sought

SME 11-50,SME <10,SME 51-250

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

A wireless touch light switch for remote control and operation

Summary

A Macedonian company specialised in home automation has developed a smart lighting solution for remote and touch control and regulation of light switches using simple and stylish touchscreen panel or mobile app. The solution redefines the classical light switching by introducing additional features like dimmer, presence simulation or doorbell notifications and offers increased safety, energy efficiency and positive ambient environment. Commercial agreement with technical assistance is sought.

Creation Date	16 February 2016
Last Update	02 March 2016
Expiration Date	02 March 2017
Reference	TOMK20160213002

Details

Description

Smart lighting is becoming increasingly important for the concepts of home automation and smart living. As most of the existing lighting solutions are essentially binary devices (typically one switch), smart lighting gives the customer a greater deal of control from the brightness through the colour of the bulbs to the exact circumstances under which they will turn on. This opens possibilities for introducing special lighting solutions aimed for ambient control for different social occasions and for increased security and energy efficiency of the smart homes. Unlike the most of the smart lighting systems available on the market, the proposed solution does not require special lightbulbs or rewiring of the existing lighting and electrical installations. It is operated by a control unit that once connected to the home router it communicates with the connected devices via secure wireless protocol with 2.4 GHz RF. The maximum distance of the switch with the control unit is 30 meters in a closed space or 500 meters on an open space. The control unit allows the integration of unlimited number of devices and offers the possibility for integration with mobile sim card. The user interface is enabled by dedicated touchscreen panel and mobile application. The touchscreen panel enables manual regulation via soft touch and LED indicators and can be custom made by laser cutting from different materials (e.g. wood, marble and glass) and with specific engravings, thus blend entirely with the interior design of the home. The remote operation is done by the dedicated mobile application that enables the user to combine lightings in a defined mode or activate certain feature with a single click. The user can choose from four available functions: single switch, double switch, dimmer and trigger. Moreover, by activating the presence simulation mode, the user will enable the lights to turn on and off randomly during the predefined period of time. The solution can be programmed with a doorbell function that sends push notifications via email or simply rings the mobile phone each time someone uses the doorbell.

The installation of the solution is done in a simple plug and play method requiring no additional

wiring or new cables and there is no need for particular technical knowledge of the users. Once installed, the solution can be connected to several lights in the home and command them simultaneously through various touch combinations. The main benefits from the solution are:

- Increased safety and security achieved by the presence simulation when the user is away for a longer period of time;
- Increased control and energy efficiency through implementation of advanced lighting solutions such as dimmer and remote turn off;
- Considerable positive effect on the health and well-being by increased level of comfort and ambient atmosphere.

The Macedonian company focuses on developing smart ambient control solutions for both residential and industrial buildings. Regarding the industrial solutions, the company has developed a considerable clients base that enable proper commercialisation of its innovative control systems. Nevertheless, as the domestic market for home automation solutions is too limited, both in terms of partners for cooperation and end-users, the company needs to explore the possibility for internationalisation. Therefore, the company is looking for partners that would help further utilisation of the proposed solution under the terms of a commercial agreement with technical assistance. Potential partners should be companies working in the area of smart home automation and manufacturers of lighting devices that would integrate the solution in their existing offerings with the technical assistance of the Macedonian company. The potential partnership will enable mutual benefits of both parties by increasing customer satisfaction, introducing new solutions on the market and increasing overall turnover.

Advantages and Innovations

- Simple installation, full compatibility with the existing lighting and electric installations;
- Smart lighting solution that reduces costs and increases comfort without any requirement for modification of the existing systems or technical knowledge of the users
- Possibility for connecting several lights and command them at the same time;
- Changeable stylish cover according to customer needs made in glass, wood or marble;
- Presence simulation function;
- Doorbell function with push notifications;
- Touch panel with LED indicator,
- Free mobile app with easy navigation for both IOS and Android.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Macedonian

Client Country

Macedonia, The former Yugoslav Republic of

Partner Sought

Type and Role of Partner Sought

Type of partner sought: Companies working in the field of home automation systems and manufacturers of light switches.

Role of the partner sought: The home automation solution providers should be interested in replacing their existing lighting solutions with the proposed one whereas the light switch manufacturers should introduce the overall solution into their existing portfolio.

Tasks to be performed: The potential partners should introduce the proposed solution in their existing systems or product portfolios under the terms of commercial agreement with technical assistance provided by the Macedonian company during the overall process.

Type and Size of Partner Sought

SME 11-50,SME <10,SME 51-250

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Voice control system for people with disabilities.

Summary

A department of a Russian university, specializing in speech technologies, has developed a voice control system that is used as a management tool highly intelligent complex "smart house" for people with disabilities. The authors are looking for partners working in this area for cooperation in the framework of research cooperation agreement.

Creation Date	26 January 2016
Last Update	16 February 2016
Expiration Date	16 February 2017
Reference	TORU20160126001

Details

Description

There is a need to create systems of social adaptation, i.e. providing people with disabilities with specialized tools that will help them to solve problems in the areas of health, welfare, transport, social protection and education. For this reason, it is important to develop systems for people with disabilities, intended for management and technical purposes ("smart house") with voice commands, in the capacity of which can be any of acoustic signals, is able to reproduce by people with disabilities (distorted speech, certain sound in the form of bellowing, wheezing, etc.).

In existing voice control systems for processing and analysis of speech signals, as a rule, there are two main approaches: time-domain analysis and frequency-domain analysis. But both approaches are not adaptive - processing is carried out on the data sample a sufficiently large duration, short and local changes does not significantly contribute to the analysis of speech signal. From this it follows that for the development of effective methods, algorithms and means of processing speech signals in voice control, it is necessary to use adaptive mathematical methods. For this reason proposed to use the method of empirical mode decomposition. Department of the Russian university has developed a voice control system "smart house", based on adaptive technology of processing of speech signals and is used as a management tool highly intelligent complex "smart house" for people with disabilities.

The superiority of this approach is the high adaptability. Components of the speech signal, resulting from the decomposition helps to identify the unique properties of user voice for voice control system.

The proposed adaptive empirical mode decomposition method, which ensures competitiveness in comparison with other methods of speech processing, meets the high adaptability to short-term changes in speech signals, detection of hidden modulations and areas of concentration of energy, possibility of the analysis both global and local properties of speech signals, the use of less computational resources.

The closest competitors (technologies of speech processing) are: off-the shelf software component for speech recognition, open application programming interface. The main difference between the proposed method from the above mentioned competitors is the use of

adaptive empirical mode decomposition in the algorithms and the nodes in the speech processing. Which improves the competitiveness of consumer properties of the proposed voice control system for people with disabilities by improving performance; improving recognition accuracy of voice commands; full working capacity without access to the internet. The authors are looking for partners working in this area for scientific cooperation. In the framework of research cooperation agreement the authors plan to conduct further joint research in this direction to achieve the desired result – an approbation of this technique on people with disabilities for further implementation of its development in their life: to improve quality of life and adaptation in society (the use of this technology as applied in pathological deviations in the work of the respiratory system and extends the functionality of the prediction of diseases of the respiratory organs of speech).

Advantages and Innovations

Adaptive technology of processing of speech signals based on a unique method, empirical mode decomposition (EMD). The adaptability of the method is that the basis functions used in the processing (decomposition), are extracted directly from the original speech signal and allow to analyze only the characteristic features.

The use of EDM in the handling will provide:

- high adaptability to short-term changes in speech signals;
- detection of hidden modulations and areas of concentration of energy;
- the ability to analyze both global and local properties of speech signals;
- use a smaller computational resources.

In turn, these above mentioned advantages of handling with the use of EMD will increase the consumer properties of the voice control system "smart house":

- recognition accuracy;
- allowable noise level ensuring accurate recognition;
- personalization (speaker-independent/dependent voice control).

Stage of Development

Concept stage

Comments Regarding Stage of Development

Conducted research work aimed at confirming declared by authors of the concept and identification of disadvantages of the use of adaptive method EMD in the processing of speech signals.

IPR Status

Copyright

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
German
French

Client Country

Russia

Partner Sought

Type and Role of Partner Sought

Type: equal partner, a research organization, universities, institutes, research institutes

Area of activity: scientific research, development.

Partner's role: conducting joint research on the development and use of voice control system "smart house" for people with disabilities.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME 51-250

Type of Partnership Considered

Research cooperation agreement

Technology Offer

Image-based CAPTCHA for touch screen devices

Summary

Researchers from a Spanish university have developed a new image-based CAPTCHA technology for touch screen devices such as mobile phones or tablets. This invention allows controlling web access, in addition to selecting and counting image elements. Also it allows for analysing and segmenting images. ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought for licensing and research cooperation agreements.

Creation Date	08 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20160205001

Details

Description

A Spanish research group specialized in image processing, analysis and computer vision has developed an innovative image-based CAPTCHA technology for touch screen device. A CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart) is a widespread security measure that prevents automated abuse of networked resources such as free-e-mail, providers, social networks, wikis and blogs.

One of the advantages humans possess over computers is the capacity to recognize similar objects within images, in spite of various types of distortion. The invention proposes a new form of image-based CAPTCHA interface design well suited for touch screen devices. In addition, it allows identifying and counting image elements to provide solutions to certain tasks that computers cannot perform without human intervention (Human-Based Computation).

For example, the prototype developed permits users employ their fingers directly on the screen surface to select and count human erythrocytes in an image. Furthermore, they can select different deformed red blood cells causing certain types of anaemia such as sickle cell anemia.

ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought.

Advantages and Innovations

The developed technology in comparison with similar products permits the direct use of one's fingers on the screen surface to recognize similar objects within given images. Furthermore, this invention is particularly accessible for younger or non-expert smart device users.

Stage of Development

Prototype available for demonstration

Comments Regarding Stage of Development

Prototype available for demonstration. The interface allows distinguishing human users from computer bots. The usability testing shows that it is well-suited for mobile devices.

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

ICT companies engaged in the implementation and development of CAPTCHA related technologies are sought.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

License agreement

Research cooperation agreement

Technology Offer

Easy and secure e-voting platform

Summary

A Greek SME active in the development of innovative IT solutions for e-government has developed a platform that supports electronic voting in the form of public opinion polls, private votes, secret ballots or formal elections. The company is looking for public authorities and marketing enterprises for services agreement and/or local IT service providers willing to promote the platform under commercial agreement with technical assistance.

Creation Date	01 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TOGR20160201001

Details

Description

The Greek based SME has developed an e-voting platform that facilitates the voting process while provides accurate and reliable results. The e-voting platform is a fully integrated system (i.e. hardware and software), which implements a set of security mechanisms conforming to a set of institutional and regulatory controls in order to produce reliable results that can have social or marketing value. The new platform streamlines the voting process within existing technological means such as smart-devices (phones, tablets, kiosks, TVs etc). The system is capable to support various voting scenarios using a variety of questionnaires and ballot forms that consist of simple or complex set of questions.

The platform is available on the internet and allows any interested organization to create a vote with an extensive feature-set to fit any need. The voters are able to vote through their PC or mobile phone using a special mobile app. Especially, in the case of enterprises that need any kind of marketing information related with their products, custom-made apps are available on demand to complement the core platform functionality. Developers and IT companies that require a certified secure back-end system to accommodate voting applications are also able to access the system as-a-service via a special application programming interface (API).

The Greek company is now looking for public authorities and marketing enterprises for services agreement and/or local IT service providers willing to promote the platform at national level for commercial agreement with technical assistance.

Advantages and Innovations

- The proposed platform has the following advantages and innovations:
- it is modular and supports all necessary procedures for properly organising and conducting an online voting
 - upholds fundamental democratic principles (uniqueness of vote, secrecy, security) at each stage of voting

- reassures transparency and verification of the process
- includes monetized voting in pre-pay and post-pay mode
- it is practical and efficient, plus low cost especially when compared to a traditional voting process
- supports a plethora of devices and other voting tools, e.g smartphones, voting machines, etc.

Stage of Development

Already on the market

IPR Status

Secret Know-how, Design Rights

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Greek

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

The greek company is looking for:

- Public authorities (e.g Municipalities and local authorities, parliaments and governments, academic institutions), NGOs, scientific associations, SMEs, market research firms, marketing departments of big multinational companies, media organisations, and political organizations for a cooperation under a services agreement
- IT service providers, willing to promote the platform at European target markets, for commercial agreement with technical assistance.

Type and Size of Partner Sought

SME 11-50, SME <10

Type of Partnership Considered

Services agreement
Commercial agreement with technical assistance

Technology Offer

Software for 3D reconstructions by using photos taken by any camera

Summary

The company is an Italian software house based in North East of Italy. A Computer Vision software solution has been developed covering a wide range of applications, such as cultural heritage, close range photogrammetry, architecture, medical and body scanning, and remote sensing. Thanks to an easy-to-use interface users can perform 3D reconstructions from pictures taken from any camera. The company is offering its know-how for technical cooperation for the integration of the software in more co

Creation Date	21 January 2016
Last Update	25 February 2016
Expiration Date	25 February 2017
Reference	TOIT20160121001

Details

Description

An Italian University spin-off company from the North East of Italy has developed a software that is able to compete with the accuracy of instrumentations such as 3D laser. The workflow has three main steps (sparse point cloud, dense point cloud and mesh generation) that can be performed by both beginners and advanced users. All the core technology of the product is proprietary and has been engineered with performance in mind, in fact it also benefits by using multi-GPUs acceleration. Thanks to this software users normally involved in surveying operations can gain several kinds of outcomes with a minimal effort.

Cooperation types include commercial agreement with technical assistance and technical cooperation agreement for the integration of the software in more complex systems and with the aim to develop new features.

Advantages and Innovations

This proprietary software is able to compete with the accuracy of instrumentations such as 3D laser scanners, solving the deep gap among image-based technique and the laser one and reducing considerably the equipment costs. Raw data that the software needs are represented by photos captured by DSLR, compacts or any other kind of camera; therefore the required equipment can be much more portable, resistant and user-friendly when compared with laser scanner technology. The software features a workflow that is suitable for all the different skill levels as well as for all budgets, while pledging stable and reliable results.

Stage of Development

Already on the market

IPR Status

Copyright

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

Type of partner sought: Companies and organization working on cultural heritage, close range photogrammetry, architecture, medical and body scanning, and remote sensing sector are sought for commercial agreement with technical assistance: adopting such an innovative technology is very easy but it's recommended a detailed knowledge transfer support and the type of the agreement depends on the type and the needs of the partner for support.

- Area of activity: cultural heritage, close range photogrammetry, architecture, medical and body scanning, and remote sensing sector.

- Task to be performed: The company is considering industrial partners and research institutions for technical cooperation agreements for the integration of the software in more complex

systems and to share their knowhow with the aim to develop new features.

Type of Partnership Considered

Commercial agreement with technical assistance

Technical cooperation agreement

Technology Offer

In-silico design and optimization of microalgae based biorefineries through mathematical models

Summary

An Italian research centre has developed mathematical models for process engineering, and software tools applicable to microalgae growth experiments or harvesting, dewatering, cell disruption, metabolite extraction and purification, that should be validated by comparison with experimental data produced in a laboratory, as well as in industrial or pilot plants scale. The group is looking for research centres interested in technological cooperations for further development.

Creation Date	01 February 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TOIT20160201001

Details

Description

Microalgae represent today one of the most promising renewable feedstocks for the production of a wide range of consumer goods such as biofuels, nutraceuticals, pharmaceuticals, bioplastics, functional food, lubricants and food for aquaculture systems. However, the exploitation of microalgae is still not widespread since it is based on technologies affected by economic and technical constraints that, in turn, have limited the development of industrial scale production systems. Therefore, in view of industrial scaling-up, the current technology should be optimized in terms of selected algal strains as well as design/operating parameters.

While the creation of new microalgal strains intrinsically characterized by high productivities of specific metabolites (lipids, proteins etc.), is an ambitious goal which can be achieved through genetic manipulation of existing strains, the optimization of design and operating parameters related to the different processing steps may be accomplished by exploiting suitable process engineering techniques which in turn rely on mathematical models. Along these lines an Italian research institute has developed suitable mathematical models which permit to identify operating conditions and reactors configurations which, in turn, are able to boost the algal metabolism in a specific desired direction. Moreover the research group, is currently involved in an intense research activity aimed to identify the microalgae genes involved in the bio-synthesis of specific metabolites and carbon dioxide uptake mechanisms of several strains belonging to the phylum of green algae.

The final goal is to develop suitable genetic engineering tools to manipulate the genome of existing strains with the aim of boosting the metabolic pathways leading to the production of the desired metabolites so to increase their productivity coupled with a high capability of carbonic anhydride (CO₂) uptake. The achievement of this goal would permit to scale up the microalgae-technology while making it economically competitive.

Thanks to skills acquired, the research group aims at developing genetic engineering tools to produce engineered microalgae strains characterized by high productivity of desired

metabolites, such as lipids, omega 3, omega 6, proteins, antioxidants, vitamins, bioplastics, pigments, etc.

Advantages and Innovations

Potential advantages deriving from a successful collaboration are:

- production of novel engineered strains capable to produce useful, and high added value metabolites such as lipids, unsaturated fatty acids (omega 3, 6, etc.);
- development of sustainable scale up of microalgae based refineries;
- saving time and money in the design and optimization of the downstream processing;
- risk limitations thanks to performance predictions and improvement of the knowledge on the industrial process;
- capitalization of the knowledge on the process;
- abatement of the experimental tests to be performed thanks to mathematical modeling and process simulation.

A potential application characterized by a high innovation level concerns the production of engineered microalgal strains capable to survive under very extreme environmental conditions such as those ones occurring in extraterrestrial planets. This very innovative activity might make the microalgal technology useful to produce food and photosynthetic oxygen to sustain manned missions on Mars in the framework of the so called In Situ resource utilization technologies.

Stage of Development

Available for demonstration

IPR Status

Exclusive Rights

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The client is looking for research institute dealing with cultivation and processing of microalgae; photobioreactors realization; refineries design, installation and operation; CO2 algae biorefinery, biofuels production, biomass processing, food processing, high added value pharmaceuticals and nutraceuticals, green chemistry, that is willing to run experimental trials in the lab, and/or build, develop and apply the tool in pilot and industrial scale biorefineries.

Type and Size of Partner Sought

University, R&D Institution

Type of Partnership Considered

Technical cooperation agreement

Technology Offer

Ultra-scalable database technology

Summary

Spanish start-up has developed an ultra-scalable operational OLTP (OnLine Transaction Processing) database technology. It scales out linearly from 1 to 100s of nodes and incorporates a data warehouse engine that provides OLAP (On-Line Analytical Processing) capabilities over the operational data. The company is looking for commercial agreements with technical assistance.

Creation Date	15 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	TOES20160212001

Details

Description

The technology developed is an operational OLTP (OnLine Transaction Processing) database that is full ACID (Atomicity, Consistency, Isolation and Durability) and full SQL (Structured Query Language).

It provides linear scalability of OLTP(OnLine Transaction Processing) database from 1 to 100s of nodes.

This technology also includes a data warehouse engine that processes analytical queries over the operational data in an online manner. In this way it provides the basis to build real-time big data analytics by enabling data analytics framework such as Spark to access the operational data.

It has polyglot integration with MongoDB, HBase and Neo4J. The integration enables to perform queries across SQL and all these NoSQL data stores combining SQL for the part of the query across data stores and subqueries written in the native query language/API. It also provides global transactions across data stores guaranteeing data consistency when storing data in multiple data stores.

The development also integrates with data streaming/CEP(Complex Event Processing) technology. Currently, it integrates with Storm and provides a Storm bolt that enables to run arbitrary SQL for each event being processed which allows to correlate events with the operational data and/or modify the operational data with the content of the event.

The company is looking for partners or clients willing to reach a commercial agreement with technical assistance.

Advantages and Innovations

- The key differentiator against existing databases is that it can scale out linearly from 1 to 100s of nodes and it is the only database technology able to match the throughput of mainframes on commodity hardware.
- Combination of OLAP and OLTP that enables to avoid ETLs (Extract, Transform and Load) by having a single database that handles the operational database and analytical queries.
- Polyglot integration, like no other technologies, enabling:
 - Queries across SQL, MongoDB, HBase and Neo4J.
 - Global transactions across SQL , MongoDB, HBase and Neo4J.
- Integration with data streaming/CEP enabling real-time correlation of data streams with operational data and/or update of operational data based on the processing of data streams.
- Demonstrated linear scalability over 500 cores running the TPC-C (Transaction Processing Performance Council) benchmark.

Stage of Development

Already on the market

IPR Status

Patents granted

Comment Regarding IPR status

Patent granted in Europe by the EPO (European Patent Office). Currently, choosing on which European countries to enter.

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:

System integrators willing to use and integrate this database technology in their client projects.
Telco software companies.

Clients using large databases but lacking of some functionalities that can be fulfilled through this ultrascaleable database technology: Banking, telco companies, logistic companies, e-commerce companies,...

- Specific area of activity of the partner:

System integrator developing applications on top of databases middleware.

The partner sought should be integrating and selling solutions to the following market sectors: telco, banking, logistics, e-commerce, e-advertising, airlines; the partner must have a deep knowledge in one or more of these sectors

- Task to be performed:

System integrator: must sell and adapt this technology to exiting databases.

Banking, telco companies, logistic companies: must integrate this technology into their existing IT system

The developer will provide the necessary technical assistance to the partner under a commercial agreement.

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Autism disorders treatment assisted by robot

Summary

An Italian start-up has developed an innovative software solution for "behaviour" humanoid robots, aimed at linking the market needs with social, personal and eHealth robotics. Technical cooperation partnership with companies and/or eHealth research centres are sought for developing new solutions for the treatment of diseases, in particular the autism syndrome.

Creation Date	04 February 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOIT20160204002

Details

Description

An Italian start-up developed a software application for the treatment of autism. The solution consists of a platform able to improve the social interactions and cognitive skills of children, with particular reference to those suffering from the autistic syndrome with verbal ability, but also non-verbal social interactive approach with learning difficulties, through the use of new technologies. A Tablet, equipped with multi-touch screen (Apple iPad), and an anthropomorphic humanoid robot have been developed and implemented.

The new "edutaining robotics" solution is going to innovate the approach to the treatment of autism in specialized schools, health care institutions, and at home.

Worldwide, the estimated number of people with autism exceeds 60 million (equal to the entire Italian population). If one considers also family members, teachers and therapists, the number of people involved exceeds 100 million. In Italy, recent studies estimate around 500,000 people with autism spectrum disorders. On a European scale the number grows up to 5 million people. This solution realizes a system of edutainment-oriented education of the child on the correctness of social interactions. It allows the child to understand the mechanics of the interaction as well as the therapist to supervise.

This technology is capable to satisfy the following objectives:

- Developing learning skills
- Increasing awareness of own body
- Understanding execution of instructions
- Improving identification, categorization and conceptualization of the objects
- Improving recognition of Emotions
- Allowing synchronization with third elements
- Learning imitation and respect of turn
- Learning collaboration in achieving a goal
- Developing discussion verbal base
- Increasing attention and concentration
- Profiling the Child:

* full Personal data of disability, attitudes and educational objectives.

- * personal data of family members and the therapist associate
 - * definition of therapy and choice of its robot app playlist
 - Favouring interaction with third parties via pictograms iconographic (PECS):
 - * direct interaction towards the NAO to run App educational and interactive parallel between robot and tablet
 - * audit and cognitive correctness of the compositions
 - Recording history of the training sessions and interaction with the tablet and the Robot:
 - * charts pace of progress with respect to the learning objectives set
 - * share the results with the Family and with the scientific community.
- Technical cooperation partnership with companies and/or eHealth research centres are sought for developing new solutions for the treatment of diseases, in particular the autism syndrome.

Advantages and Innovations

The main Advantages and Innovations of this technology are:

- Improving recognition of Emotions;
- Personal data of family members and the therapist associate;
- Recording history of the training sessions and interaction with the tablet and the Robot:
share the results with the Family and with the scientific community.

Stage of Development

Available for demonstration

IPR Status

Secret Know-how, Exclusive Rights

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Health Institutions, Enterprise, Technology Transfer Organization, Research Centres
- Specific area of activity of the partner: eHealth, robotic, ICT
- Task to be performed: developing new robotic solution for eHealth sectors in the fields of treatment of autism, education in specialized schools, health care institutions, and at home.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, SME 51-250

Type of Partnership Considered

Technical cooperation agreement

Technology Offer

A device is offered to power the trailing throttle of electric cars, usable within the construction of electric cars and is offered via financial agreement or license agreement.

Summary

Currently, the aggregates for the production of electric energy are built into electric cars. Their main disadvantage is that they are expensive and must be built into each electric car. A Slovak inventor has developed a cheaper, more practical alternative. The technical solution offered can be used in the car industry, especially for the design of electric vehicles. The inventor is looking to offer this technology to partners via financial agreement or via license agreement.

Creation Date	08 January 2016
Last Update	23 February 2016
Expiration Date	23 February 2017
Reference	TOSK20160108001

Details

Description

This technical solution relates to a device based on an electric rechargeable battery of an electric car and its utilization for limited movement of an electric car during the time when a main battery of an electric car is discharged.

Currently, the aggregates for production of electric energy are rather built-in electric cars. Their main disadvantage is, that they are very expensive and must be built-in each one electric car.

The above mentioned limitation can be completely eliminated by using the device designed according to the proposed engineering solution. By using the electric car's spare battery, which is a main part of the presented device, there is no need to use an aggregate in order to produce electric energy for the trailing throttle of the vehicle. By connecting the spare battery of the electric car to the electric power network of the car, the vehicle is capable of limited electric movement. By relieving the electric car from the aggregate (as is the case when using the spare battery) the costs of driving are reduced. The device for the electric car's trailing throttle consists of a functionally-charged spare battery connected to the electrical power network and by the discharged main battery of the car connected by electric cables via a switch.

This technological solution can be implemented as follows:

The core of this technological solution rests in the fact that with a discharged main battery (please see nr. "1" in the picture below) of an electric car and with a functionally-charged spare battery (2) connected to the electrical power network (6) of electric car with electric cables (4)

and with a flick of the switch (3), the electric car is capable of limited movement. The presence of the spare battery (2) in the electric car is needed for the trailing throttle of the electric car only when the main battery (1) is discharged. The capacity of the spare battery (2) is limited by its weight (max. 50 kg).

Within this device, the connection of a spare battery of an electric car to the electrical power network is secured via a switch, which switches the source of electrical power - the main and the spare battery. The connection continues through electrical cables with four terminals. The terminals are attached to the pole cable terminal of the battery. The terminals are unplugging and reconnecting to the pole cable terminals of batteries only when the electric current and electric voltage is off. After the connection of the terminals to the pole cable terminals of spare battery, the switch switches the way the electric circuit between the spare battery and the electric power network is created - thus, the electric car is capable of movement with a capacity of spare battery.

After changing of the main battery of the electric vehicle, or after replacing of the main battery, the spare battery is disconnected and the main battery is connected in a opposite direction compared to the connection of the spare battery. Then the electric vehicle is capable of movement again.

The object of this technical solution can be used in the car industry, especially for the design of electric vehicles. The Slovak inventor prefers a cooperation via financial agreement (the inventor has an innovative project for the development of product, needs financing and offers the project to investors) or via license agreement (the Slovak inventor is offering a license/looking for licensees).

Advantages and Innovations

- environmental protection - no exhaust pollutants
- lower production costs compared to other currently used technical solutions

Stage of Development

Available for demonstration

IPR Status

Design Rights, Patents granted

Comment Regarding IPR status

Granted utility models in Slovakia, international patent granted.

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Slovak

Client Country

Slovakia

Partner Sought

Type and Role of Partner Sought

Type and a field of activity of partner: company - industry - companies active in automotive industry, electric cars development.

Role: The Slovak inventor wishes a cooperation via financial agreement (the inventor has an innovative project for the development of product, needs financing and offers the project to investors) or via license agreement (the Slovak inventor is offering a license/looking for licensees).

Type and Size of Partner Sought

SME 11-50, SME <10,>500 MNE, 251-500, SME 51-250,>500

Type of Partnership Considered

License agreement
Financial agreement

Technology Offer

Natural ventilation systems for energy saving in buildings with optimisation of environmental impact and economic value

Summary

An Italian company, based in Lombardy, specialised in energy saving solutions, has developed an innovative approach based on natural ventilation to reduce energy demand and improve microclimatic conditions within the working environment in civil and industrial buildings. The company is interested in commercial agreements with technical assistance and offers its expertise within H2020 project proposals.

Creation Date	26 January 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOIT20160122001

Details

Description

The Italian company, based in Milan, has been working across Europe for over twenty years in the smoke and heat evacuation, industrial ventilation and zenithal lighting. Customised solutions are identified leading to real energy savings, which translate into financial gain for clients.

The company has developed innovative natural ventilation systems for industrial and commercial buildings, where hot air may have remarkable impact on working and living conditions. Design aspect is of crucial importance for creating a good, effective natural ventilation system. Such systems help clean the air of exhaust gases within an industrial facility, ultimately making the workplace a healthier environment. Moreover humidity levels are kept in check within a determinate area, making it possible to safeguard the integrity of warehoused materials, preserve steel structures, and make it possible to expel potentially explosive gases at no extra energy cost.

The company's continuous search for state-of-the-art solutions is based on collaboration projects with research labs, daily contact with designers and clients, and active participation in national and international technical committees and professional groups related to the sector.

The company is looking for commercial agreements with technical assistance and offers its expertise for research agreements within H2020 project proposals.

Advantages and Innovations

In 2011 the company founded a new "Green division" within a market context that is paying increasing attention to eco-sustainability and reduction of energy demand. Aim of this department is to identify innovative technical solutions, customised to client's needs, optimising performance/cost ratio and improving microclimatic conditions within the workplace. Natural

ventilation systems are earning recognition as valuable integrative techniques for microclimate control in residential, commercial and industrial buildings, where they provide blending energy efficiency, financial gain and environmental sustainability. Assisted ventilation guarantees several advantages: it allows effective control of the microclimate in industrial facilities, it improves comfort for workers, ensures correct functioning of production processes, helps cleaning the air of exhaust gases, ultimately making the workplace a healthier environment. Moreover it keeps in check humidity levels within a determined area, preserving integrity of warehoused materials.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

Industrial, commercial, building construction partners for commercial agreements with technical assistance.

Universities, research centers, laboratories, willing to cooperate in R&D activities under research cooperation agreements (e.g. H2020).

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10, SME 51-250, >500

Type of Partnership Considered

Commercial agreement with technical assistance
Research cooperation agreement

Technology Offer

High frequency impulse measurement (HFIM) technology to measure cracks in real-time during metal processing

Summary

A German SME developed a new high frequency impulse measuring system that detects cracks during machining, welding, forming or other production processes. The process is adjusted to the workpiece. The measurement system is able to interrupt the production process automatically in case of failure. Thus maintenance costs and scrap are significantly reduced. They seek partners to implement the technology via commercial agreements with technical assistance and for research for new applications.

Creation Date	09 February 2016
Last Update	23 February 2016
Expiration Date	23 February 2017
Reference	TODE20160209001

Details

Description

In straightening press processes, a stamp pushes against a clamped workpiece and bends it. This produces high pulling and thrust forces which can lead to a crack. In that case a shockwave runs through the workpiece and the machine tools causes vibrations in connected machine parts.

A German SME developed a new high frequency impulse measuring system that detects cracks and structural changes during machining, welding, bending and straightening, wire-drawing, forming or numerous other production processes.

The measuring process is adjusted to the workpiece. The measurement system is able to interrupt the production process automatically in case of failure. Thus maintenance costs and scrap are significantly reduced. Measurement computers render it possible to evaluate many production processes, to detect cracks in the very moment they occur and to check if production parameters stay inside tolerance thresholds:

- crack detection
- raise life time of tools
- Tool monitoring
- Process optimization

Broadband vibration sensors pick up the acoustic emission signals on the surface of the machine parts. Thanks to sensor and pre-filtration technology, ratio between signal and noise is very good.

If a crack occurs in a workpiece, this emits a certain kind of signal. This signal is characterized

roughly by three properties: steep start, broadband and smooth finish.

With every workpiece exchange, the device performs a self-test. It checks the pre-amplification chain and the connection as well as the coupling of the sensor itself. It is possible to save threshold values and pre-amplification settings on every measuring position and workpieces. The sensors are capable of detecting signals up to 25 MHz. The machine does 25.000 spectral analyses per second.

The company is looking for industrial partners interested to implement the technology within the framework of commercial agreements with technical assistance. The German company would accompany the adjusting process.

There is also an interest in common research projects with industrial or research partners for the development of new applications.

Advantages and Innovations

Innovation:

Optical measurement systems that are often applied in order to analyse product quality cannot detect cracks that are closed at the surface of the product.

Unlike conventional methods, this new crack detection system works during the process, in real-time. That means the production process can be interrupted immediately in case of failure.

Damaged workpieces can be more easily and accurately be separated from non-damaged workpieces. The data provided allows the optimization of the production process and to reduce scrap. Additionally, it's possible to detect tool wear and to optimize the whole process – for example, to lengthen maintenance cycles or to eliminate sources of trouble.

Advantages of the measurement system are:

- Optimal signal detection and pre-filtering of noise like mechanical or electrical noise
- Measuring is adjusted to the workpiece, tool and process
- Availability of the device is constantly monitored by complex self-testing functions
- Measuring data is stored and can be used later for statistical evaluation
- High reliability

Stage of Development

Already on the market

IPR Status

Patents granted

Comment Regarding IPR status

Europe, USA, Asia

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

The German company is looking for partners interested in implementing the technology and in common research projects for the development of new applications:

Industrial partners to implement the technology are sought from metal processing industry, i.e., automotive, machine engineering, shipbuilding and metal working. The German company would accompany the adjusting process with know-how transfer and advice.

As there are still new application opportunities for this technology the company is also interested in cooperation with research organizations for the development of new solutions e.g. in smart manufacturing (Industry 4.0), Internet of Things (IoT) and others.

Type of Partnership Considered

Commercial agreement with technical assistance
Research cooperation agreement

Technology Offer

Micro-supercapacitors with high energy density and excellent cycling stability

Summary

Spanish and French researchers have recently developed a novel type of electrode material that they have used as part of high power density micro-supercapacitors. Micro-supercapacitors are miniaturized electrochemical energy storage devices which can offer power densities several orders of magnitude larger than those of conventional batteries and supercapacitors. Manufacturers of electronic devices, batteries and/or supercapacitors are being sought for patent license or collaboration agreement.

Creation Date	11 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20160211001

Details

Description

Energy storage is in the midst of a revolutionary change which will turn it into a key factor within the upcoming sustainable energy model.

Micro-supercapacitors are miniaturized electrochemical energy storage devices which can offer power densities several orders of magnitude larger than those of conventional batteries and supercapacitors due to their short ion diffusion lengths.

The novel electrode is based on silicon nanowires and a nanostructured oxide coating (for improved energy density) that permits it to be used for energy storage either as part of a micro-supercapacitor or as anode in a Lithium-ion battery, both with excellent cycling stability.

Thanks to the use of these robust electrode materials and ionic liquid electrolytes the micro-supercapacitors are able to stand harsh reflow conditions (280°C for 40 seconds) which are specific operational conditions for many manufacturing electronic devices such as sensors-actuators, energy-harvesting microsystems, wireless communications systems and low-power buffers like random access memories and computer cards. They could also find use in any other application where very

robust, sturdy and long-lasting devices are needed such as in microsattellites, street lights, drones, aerospace systems or power emergency actuators (defibrillators).

Advantages and Innovations

The novel electrode is based on silicon nanowires and a nanostructured oxide coating (for improved energy density) that permits it to be used for energy storage either as part of a micro-supercapacitor or as anode in a Li-ion battery, both with excellent cycling stability.

Thanks to the use of these robust electrode materials and ionic liquid electrolytes the micro-supercapacitors are able to stand harsh reflow conditions (280°C for 40 seconds) which are

specific operational conditions for manufacturing electronic devices.

The novel technology presents:

- A high power with enhanced energy density (maximum energy density of $9.1 \mu\text{Whcm}^{-2}$ which is between 3 and 10 time that of competing.
- Faster charge/discharge than conventional batteries and high lifetime.
- Efficient cyclability (stabilized $>90\%$ after 5000 cycles).
- Easy and direct integration into other miniaturized electronic devices such as sensors-actuators or energy-harvesting microsystems providing excellent 20 nano-/micro-scale peak power.
- Possibility to be used as part of asymmetric capacitor.
- They could also find use in any application where very robust, sturdy and long-lasting devices are needed like microsatellites, street lights, drones, aerospace systems, power emergency actuators and/or defibrillators.

Stage of Development

Available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

In priority year

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Manufacturers of supercondensators, batteries or electronic devices are sought for patent license or collaboration agreement.

Type of Partnership Considered

License agreement
Research cooperation agreement

Technology Offer

Low cost and versatile fabrication of complementary organic semiconductor devices by UV-VIS irradiation

Summary

A Spanish research institution has developed a simple and efficient method to obtain complementary organic semiconductors by using only a single, solution-processable material and a single deposition step, in combination with light irradiation. This makes it possible to bring printed electronics into the market by focusing on price and real world applicability. Industrial partners are being sought to exploit the existing know-how through a patent license agreement.

Creation Date	04 February 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20160204001

Details

Description

fabrication processes of n- or p-type semiconducting devices usually require the deposition of both, n- and p-type materials, which have different processing requirements. In the proposed method, only one solution of a p-type material has to be deposited. Subsequently, it can locally be irradiated with light to convert the material to n-type according to the needs (Fig. a).

Because the deposition itself comprises only a single step, this automatically ensures good electrical as well as physical contact between n- and p- regions, thereby minimizing contact resistance and avoiding dewetting and delamination issues. All of this allows to reduce the minimum process complexity, by not only forgoing the deposition step for the complementary semiconductor layer, but also potentially avoiding the need for further deposition steps of metallic interconnect layers in some devices like thermoelectric generators. Another advantage of patterning using light instead of additive techniques like inkjet printing, is the strongly increased resolution that photolithography offers.

Application to thermoelectricity has been demonstrated, using a large-scale, roll-to-roll coating compatible in-plane geometry that showcases the convenience of the developed method, while also using the inherent advantages of flexible substrates to their fullest (Fig. b).

Advantages and Innovations

- Very simple fabrication processes, to keep costs low.
- Large areas can be coated and then patterned using optical techniques instead of relying on more complicated and less accurate multi-step printing processes.
- Higher thickness homogeneity compared to additive manufacturing.

- Applicability goes well beyond the area of thermoelectric power generation, and will prove useful in other fields, such as large area Peltier coolers, intelligent insulation materials, smart textiles, printed electronics in general.
- The materials used are stable in air over months.

Stage of Development

Available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

We are looking for industrial partners from the Printed electronics sector, companies interested in the use and exploitation of this fabrication method, under patent license.

Type of Partnership Considered

License agreement

Technology Offer

A UK SME that has developed an advanced digital network tracking system (with applications for protecting high risk locations) is offering service and commercial agreements with technical assistance to organisations interested in using the system

Summary

The North West UK based SME is highly specialised in developing digital network analysis tracking systems. Their tracking system is able to identify, track and trace the movements of any mobile device, ipads or laptops that enters the monitored areas. The technology has applications in smart cities (security), border control, airport security, and counter terrorism. The company is interested to engage with partners via service and commercial agreements with technical assistance.

Creation Date	21 December 2015
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOUK20150930001

Details

Description

This UK company was established in 2009 and has expanded their expertise from a small specialist IT team involved in designing individual security and public safety solutions into large scale monitoring and tracking.

They design, build, install and maintain self-contained monitoring networks in order to protect recognised locations of high risk such as airports, train stations, government buildings, borders, tourist places etc.

The company has developed an advanced digital network analysis tracker system which utilise geo-fencing along with other innovative technologies. The system can find, identify and track the movements of any mobile device, iPad and laptop that enters the monitored area. The unique system processes and displays all the data that has been captured in real time.

Once the IDs of the devices entering in the monitored area is captured, it can accurately plot the exact location and continuously track its movement. The tracking facility is available on screen in real time. The advanced algorithm allows the user to identify the patterns and can create on screen triggers for pattern breakers. For example, unfamiliar device activity- on the long stay car park of a high-risk area.

The applications for the technology could include:

- 1) Smart Cities: The technology can fit and serve well in smart city campaigns, especially in terms of security. The proposed technology can offer a new layer of security to zones that should not have any unknown device (mobile, ipad, laptops etc.) in their vicinity at set times.
- 2) Counter Terrorism: The innovative system deployed at borders is capable of identifying those people on a watch list and provide behavioural patterns, generating lines of enquiry on any breaches. It can monitor the flow of travellers, identify and track those of interest and can send alerts on physical breach of border and locate sites of incursion.
- 3) Airports: The proposed tracker system can discreetly monitor both embarking and disembarking air passengers, intelligently processing their digital signatures and reliably linking this data to an individual's existing forms of identification. This can be used as an additional layer of passenger protection and intelligence gathering, in a completely unobtrusive manner, without causing delay, inconvenience or distress.
- 4) Sensitive close circuit TV areas (CCTV): The tracking system is capable of providing a line of enquiry on any criminal captured by the CCTV, but unidentifiable due to head scarf or hood preventing recognition. The international mobile equipment identity (IMEI) and international mobile subscriber identity (IMSI) number of the criminal's device would be captured, identifying the person for the police to take further actions.

The company is looking to engage with potential partners using service and commercial agreements with technical assistance.

Advantages and Innovations

One of the innovative aspects is that all the data is centrally recorded for real time processing and the data can be reviewed at any time.

The proposed digital surveillance, unlike a camera system, does not need manning, it will automatically detect and capture the unique identity of a device and therefore capture the identity of the person who owns the device.

The novel tracking system do not require any connectivity with mobile or wi-fi operators and is able to communicate with all subscriber identity modules (SIMs) in roaming.

The system can lock one or more mobile phones in the area of coverage and easily monitor blacklist and white-list numbers. The direction-finding feature is extremely accurate up to 1 square metre. The tracking system can be easily integrated with decoder to enable voice recording and listening.

It is available in fixed installation mode for infrastructure deployment and for mobile operations a portable battery powered option is also available.

Advantages:

- 1) The standard 2D map display of all data collected is available, with optional 3D interface.
- 2) Users can have different layered group permissions providing access to different departments. Colour coding of groups, i.e. staff, visitor, unknowns allows for quicker visual inspection and understanding of the data collected.
- 3) Ability to selectively jam mobile enabled devices, which will allow for better crisis situation management or crowd management.

4) Optional layer of data analytics and reports can be created as part of the solution to meet specific customer requirements

5) The fixed tracking system nodes can detect in real time all mobile phones (2G, 3G, 4G) and wi-fi enabled device.

- Detection via 2G, 3G, 4G, wi-fi media access control (MAC)
- Black White listing of devices (selectively jamming targets and or crowds)
- Silent call facility natively on 2G, 3G, 4G for direction finding of targets.

Stage of Development

Already on the market

IPR Status

Design Rights, Trade Marks, Copyright

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

The company is interested to engage with partners who are striving to improve the security standards within their location or for their clients.

The proposed solution is more suitable for public organisations such as border control forces or organisations providing monitoring and security services at airports, train stations, borders, shopping malls or any location at high risk. The company is also looking to collaborate with industrial sector from the view point of crowd management during an event or surveillance of critical areas of building.

The company is looking for commercial agreements with technical assistance depending on the scope of project and in the longer term for the service agreement. An initial demonstration of the technology would be arranged on request.

Type and Size of Partner Sought

SME 11-50, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Services agreement

Commercial agreement with technical assistance

Technology Offer

Automated smart fire detection for outdoor areas using advanced infrared thermography

Summary

An Austrian SME has developed a technology which securely detects fire in outdoor areas of more than 10,000 sqm by applying infrared cameras and advanced software. The system does not request any personnel and securely eliminates false alarms e.g. caused by other heat emissions. Partners are sought for developing a product series in form of commercial or technical cooperation or license the technology.

Creation Date	25 January 2016
Last Update	10 February 2016
Expiration Date	10 February 2017
Reference	TOAT20160119001

Details

Description

Up to now automated fire detection is only possible for limited, mainly industrial applications coming along with expensive equipment and/or high personnel costs. Existing equipment based on infrared (IR) cameras solely measure "hot spots" to detect fire threats. Such systems are still vulnerable to interferences e.g. caused by reflections of sun light or diverse emissions of heat e.g. by engines. Therefore persons still need to verify and confirm alarms triggered by such standard systems. This instance causes a timeframe of several minutes between fire detection and alarm.

This advanced system, developed by an Austrian SME, uses polarization effects of light and its short time changes as recorded by camera sequences. Special algorithms identify potential sources of fire and minimal changes at these points. The system compares these measurements with characteristic values for fire. It carries out multiple measurements and interpretations in a short period of time. Hence, only a multiple match will trigger the fire alarm. Per implemented infrared camera and the attached lenses an outdoor area of approx. 1,000 square meters can be monitored safely. Arraying several cameras the detection area can be adapted to customer needs up to more than 10,000 sqm.

The smart system consists of robust standards components. The IR-cameras is connected via LAN-network to the software based fire detection application. The fire detection application works with original image information provided by the IR-camera. The local signal evaluation contains a real time input/output module as logic connection to the fire alarm system. The software is Windows-based and is equipped with a failure detection system.

Technical details of the smart fire detection system are:

- IR-cameras with a fire detection temperature range between 0 and 1000°C

- real-time interface to achieve safety requirements and the connection to the fire alarm system
- Fire detection application windows based with an update rate of 2 FPS (frames per second)

Application areas:

- primary industry (minerals, oil, coal, wood, pulp&paper) with large outdoor storage areas
- process automation (conveyors, dosing systems etc.)
- transport and infrastructure (cable cars, tunnels, railroads, harbours and airports)
- other areas where fire prevention and early fire detection is crucial

In order to develop a product series with this technology, partners are sought for license agreements as well as technical cooperation or commercial cooperation with technical assistance.

Advantages and Innovations

The early fire detection system offers distinct advantages in respect to secure automated fire detection as well as easy and robust function. The USP is the extrem short time (under 1 minute) between detection of factual fire and alarm, compared to non-automatic systems (several minutes).

Advantages of the system are:

- automated real-time monitoring of large outdoor areas
- fire detection within 20-40 seconds secured by multiple sequence image recognition
- secure elimination of false alarms e.g. caused by reflections of sun light or diverse emissions of heat e.g. by engines.
- no need for personnel for operation or confirmation of alarms
- robust function of stand alone system

The system is offered for a broad range of applications in industry and infrastructure projects and can be adapted according to the client's specific application. Moreover it's planned to develop a modular series product for standard applications.

Stage of Development

Prototype available for demonstration

Comments Regarding Stage of Development

- available for demonstration
- pilot application certified by local authority and operating monitoring an transport system for one year

IPR Status

Secret Know-how

Comment Regarding IPR status

- secret know-how
- coded software

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client**Languages Spoken**

English
German

Client Country

Austria

Partner Sought**Type and Role of Partner Sought**

Partners are sought with

- profound technical knowledge e.g. providing engineering services in the area of fire prevention and early fire detection or
- with a well established network of clients in the areas of primary industry, process automation, transport and infrastructure or fire fighting organisations
- background in developing and manufacturing electronic products for a modular series product

Partners can either be active in project development, engineering services, sales or development of a series product.

Potential forms of cooperation:

Technical cooperation:

Jointly adapt and optimize the prototype to a market-ready product.

License agreement:

Acquire the software and know-how to set up the technology under one's own brand.

Commercial agreement with technical assistance:

Buy the technology as a user and receive training on how to maintain the smart system.

Type and Size of Partner Sought

SME 11-50, SME <10, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Commercial agreement with technical assistance
Technical cooperation agreement

Technology Offer

Intelligent self-cleaning toilet

Summary

A Polish inventor running a designing company developed a prototype of self-cleaning intelligent toilet. This device is characterized by earlier not used design solutions and functional capabilities. The inventor is looking for manufacturing or construction companies to cooperate with on the basis of license, joint venture and commercial agreement with technical assistance. The partners are expected to further develop a prototype according to their needs.

Creation Date	22 January 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOPL20160122002

Details

Description

For 4 years this Polish company has been working on designing special and innovative products. They are characterized by uniqueness of solutions, and are patented. The company has been selling its own patented products but also develop products for external companies from concept until the construction of the prototype

The toilet, being the object of this offer, can be equipped with an early warning system of health by measuring: weight, temperature, and perform preliminary analysis of urine. Early warning system significantly affect on human health and ensure rapid referral for treatment and prevention of possible consequences resulting from ignorance about the condition of our health such as: deficiencies in the diet, pregnancy, diabetes, cirrhosis of the liver.

The toilet provides odorless use. Automatic cleaning and disinfection eliminate the need for cleaning the toilet bowl, toilet automatically gets rid of dirt.

The company is looking for licensees, joint venture partners and offers cooperation within commercial agreement with technical assistance. The potential partners might be from household sanitary equipment manufacturing or construction sectors. The further development of a prototype is expected. The desired outcome of an international partnership would be improvement of technology and growth in sales.

Advantages and Innovations

The novelty of this solution consists in a specially designed impurities and odor removal system with self-cleaning surface of toilet seat. The small size allows the toilet bowl to be installed even in the smallest bathrooms. It can be used in public institutions, residential buildings and everywhere else. Self-cleaning toilet will have a significant impact on human health through ensure hygiene, non-proliferation of bacteria, viruses and parasites eliminating contact with the impure surface of the toilet.

Modern design, aesthetics, increase usable space of the bathroom by keeping it in the wall, the lack of any kind of brushes and cleaning chemicals will change the appearance and functionality

of the bathroom. There will be saving time (automatic cleaning, automatic weight measurements of temperature, etc.) and money (ecological dosing of chemicals and saving water and heat.

Stage of Development

Proposal under development

Comments Regarding Stage of Development

Today the company has:

- Technical documentation and made an initial prototype,
- Developed production technology in three different materials: acrylic, composite, glass.

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

Patents are extended in the course of research and development

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Polish

Client Country

Poland

Partner Sought

Type and Role of Partner Sought

Industrial companies from construction materials and household sanitary equipment manufactory sectors, seeking new products for their portfolio. The potential partners should be ready to collaborate in line with considered cooperation agreements. Joint venture partners will be expected to give input in co-development of a prototype.

Type of Partnership Considered

License agreement
Commercial agreement with technical assistance
Joint venture agreement

Technology Offer

Cobotic and exoskeleton integration to reduce arduousness in industry

Summary

A French company is looking for Spanish integrators to adapt and distribute their technologies of exoskeleton and cobots. The technologies offered are mechanical and mechatronic exoskeletons which reduce arduousness at work and are applicable to many markets, including: industry (transport, mechanic, foundry, food) logistics, construction, medical and agriculture. Spanish partners are sought for a cooperation agreement with technical assistance.

Creation Date	07 January 2016
Last Update	12 February 2016
Expiration Date	12 February 2017
Reference	TOFR20160107001

Details

Description

The French company is a developer and an integrator of robotic and cobotic technologies for human services.

Today, many professions with a lot of lifting work or in bent-over work positions encounter issues and, as a result, employees suffer back pains. A solution can be the use of mechanical and mechatronic exoskeletons.

The proposed technology is a lightweight exoskeleton for humans. The light weight is made possible as no motors are being used.

Moreover, the exoskeleton allows the operator to walk, turn, reach and make other moves, which is not the case with other back supports such as corsets or braces. 40% of back muscle activity is reduced by using this exoskeleton.

This exoskeleton needs to be adapted by the partner for each specific user/operator, according to the operator's size and morphology. These exoskeletons are already well introduced in the French manufacturing industries and also in logistics-based ones.

The offered technologies are applicable to many markets such as industry (transport, mechanics, foundry, agrofood) and also logistics, construction, medical, agriculture, etc.

A commercial agreement is sought with technical assistance with partners located in Spain, to identify and promote the exoskeleton's use in industry.

The partner should adapt the exoskeleton to each operator's specific requirements regarding their field of activity and morphology.

Advantages and Innovations

- Back pain reduced
- Lightweight
- User-friendly
- Adapted to each morphology

Those technologies have very few competitors nowadays and are already implemented in many French companies. Potential is very large and new developments will arrive in 2016.

Stage of Development

Already on the market

IPR Status

Design Rights, Trade Marks

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
French
Spanish

Client Country

France

Partner Sought

Type and Role of Partner Sought

The partner will have to distribute and adapt the products to the Spanish market in collaboration with the French company.

Type and Size of Partner Sought

SME 11-50, SME <10

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Scottish Company offering new building simulation methods

Summary

A Scottish consulting and software services company specialising in innovative energy systems and building simulation using 3D modelling have developed an on-line web and cloud based service for energy analysis of buildings. In order to adapt and test products and localise offerings in other countries, the company is seeking academic, research and industrial partners for technical and research cooperation agreements and commercial agreements with technical assistance.

Creation Date	05 February 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TOUK20160205002

Details

Description

With the need for deep renovations of the building sector where targets of 60% and above are required, there is a need to simulate the theoretical performance of a building at an early stage. A software platform has been constructed that enables building owners and professionals to produce models and run dynamic simulations to test a range of interventions for fabric and technology solutions for energy efficiency improvements.

The company team consists of a combination of software developers and energy engineers seeking innovative ways to enable customers to evaluate the most effective energy improvement measures.

The three key elements to the platform are:

- Shared storage space - where all data is stored and shared with design team members and where real time communication improves the team productivity regardless of location.
- 3D Model maker - this takes an existing popular modelling tool and has been enhanced to become an intelligent tool for low carbon building design.
- Energy engine - a web based version of a global standard which is under constant open source development for deep dynamic simulation.

The company now wishes to test the product and adapt as necessary to allow for local requirements. They are looking for academic or research partners with whom they can cooperate under a research agreement to further the development of the product through verification and testing and the development of new software. They are also seeking R & D partners with an in-depth knowledge of country specific requirements with regard to constructions, regulations and practices, who can help develop the technology under commercial agreements with technical assistance or research co-operation agreements to meet the requirements of its use in specific areas, both in terms of geography and activity. The company is also interested in finding industrial partners who can provide market intelligence and

knowledge of local market trends for assistance with routes to market, pilot testing and early adoption of new innovations under commercial agreements with technical assistance

Advantages and Innovations

The web based on-line approach with cloud storage to energy analysis allows customers to work anywhere, anytime and on any computer. Compared to desk top systems this approach is more affordable with a "Software as a Service" offering, with seamless upgrades as new innovations are developed and functionality is improved.

The platform allows the construction of models enabling the application of energy saving measures to determine the most cost effective solutions from an investment perspective. This process simulates numerous options well before any capital costs are incurred.

The platform allows for multiple interventions on multiple buildings with the on-line and cloud approach where dynamic simulation can enable the selection of the best investment case without the need for customers investing in powerful computers.

The model maker has been developed to ensure that interoperability with other global simulation tools is enabled thus increasing the size of the available market.

With the rapid modelling function, early results can be achieved which allows teams to set targets and regularly check progress against these targets. Another early benefit is that it brings a measure of cost control to the process and avoiding any over design issues.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Comment Regarding IPR status

All the IP for the suite of products is owned by the company.

If a partnership is established then the newly developed IP will be subject to a legal agreement so that the exploitation of the new product[s] will be shared on an equitable basis.

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

TYPE OF PARTNER: Academic

SPECIFIC AREA OF ACTIVITY: New innovations in the software development programme built on existing products

TASKS TO BE PERFORMED: New software developed. Verification and testing of new functionality

TYPE OF PARTNER: Industry. Software company in energy simulation sector

SPECIFIC AREA OF ACTIVITY: Market intelligence and knowledge of local market trends

TASKS TO BE PERFORMED: Assist with routes to market. Pilot testing. Early adopters of new innovations

TYPE OF PARTNER: R and D organisations with building energy expertise

SPECIFIC AREA OF ACTIVITY: Knowledge of country specific requirements with regard to constructions, regulations and practices

TASKS TO BE PERFORMED: Adaptation of localisation tasks

Type of Partnership Considered

Commercial agreement with technical assistance

Technical cooperation agreement

Research cooperation agreement

Technology Offer

Efficient energy harvesting for the internet of things or wireless sensors by use of innovative thermoelectric generators

Summary

A spin-off from a German research institution has developed innovative thermoelectric generators (TEGs) as an independent energy supply for wireless sensors and actuators. TEGs convert heat directly into electric power as soon as there is a condition of differences in temperature. Due to new materials and a low-cost production process the SME will be the first manufacturer to produce TEGs suitable for broad mass applications. They look for licence, technical and research co-operations.

Creation Date	17 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TODE20160215002

Details

Description

Heat is everywhere – in many cases more than actually required. A German SME that is a spin-off from a research institution takes advantage of this fact and develops innovative thermoelectric generators (TEGs) that convert heat directly into electric power as soon as there is a condition of differences in temperature. The TEGs can be used even in the case of only small differences in temperature and are an independent energy supply for the internet of things or wireless sensors. Thus, in many connected devices inconvenient battery changes won't be necessary anymore.

The SME also has managed to combine low-cost materials and industrial production methods for the first time and the resulting cost advantage will enable them to be the first manufacturer to produce TEGs suitable for broad mass applications.

Application fields of special interest are

- Energy harvesting for smart homes

Where heat is available, wireless devices of smart homes can be powered energy autonomous with TEGs. For instance, the regular and yet inconvenient battery replacements for electronic heating valves in smart homes can be avoided completely. The required electrical energy can be produced by converting a small amount of the radiator heat.

- Energy harvesting for industrial wireless sensor networks (WSNs)

WSNs are getting more and more important in industrial environments because monitoring of

significant parameters helps to improve and to stabilize industrial processes and applications. Pipes or tubes with hot fluids or gas are perfectly suited for the new TEGs. Warm rotary parts of machinery can also be used to power sensors for condition monitoring. Depending on the industrial processes there are many more possibilities to harvest valuable heat which hasn't been used yet.

In the current development phase the SME looks for industrial partners who can support them in scaling up the synthesis of organic semiconductors by developing a process suitable for mass production. In a second step the partner could then produce the materials under a licence agreement. They are also looking for industrial partners (OEMs, supplier) for field testing who are interested in integrating the new TEGs into their products. Furthermore, they are looking for partners active in research and development in the field of thermoelectrics and low power applications. Finally the SME looks for electronic companies supporting them with the development of very low power electronics by supplying samples and test kits. These co-operations could be performed in the frame of a technological or research co-operation.

Advantages and Innovations

- The new TEGs are much less expensive than conventional TEGs which require rare as well as toxic materials and complex production processes.
- The new technology makes use of inexpensive organic semiconductors (electrically conductive polymers) that can be processed on large scale industrial production machines (roll-to-roll printing machines). This combination leads to a competitive price of TEGs for the first time (target PPU 1,50€).
- The use of polymers (plastics) confer superior mechanical, thermal and electrical properties to the new generators.
- The TEGs are only the size of a sugar cube.
- TEGs work completely maintenance-free.
- They are very flexible and can even be mounted on round surfaces like pipes which are often an ideal heat source.
- They are only made of nontoxic materials that allow for an eco-friendly disposal.
- The TEGs are made of elastic materials and therefore meet the requirements for rough industrial environments. Vibration and shocks are e.g. unable to harm the TEGs.

Stage of Development

Under development/lab tested

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

The SME is looking for:

- OEMs of electronic devices connected to the Internet of Things
- Supplier of low power electronics
- Producer of chemical materials
- Research organisations that investigate low power electronics and thermoelectric materials

Tasks to be performed by the partner:

- For field testing the OEM integrates the TEGs in their products and conducts the testing in realistic environments
- Electronic companies support the SME to develop very low power electronics by supplying samples and test kits
- Producer of chemical materials give support to scaling up the synthesis of organic semiconductors by developing a process suitable for mass production – in a second step the partner could then produce the TEGs under license
- Doing research in the field of thermoelectrics and low power applications and sharing the knowledge

Type of Partnership Considered

- License agreement
- Technical cooperation agreement
- Research cooperation agreement

Technology Offer

Scottish SME has developed a patented self-scanning breast tumour detection tool

Summary

A Scottish SME with a track record in medical device development has developed and patented a self-checking non-invasive, patient friendly breast tumour detection tool. The company is looking for industrial partners for research co-operation, licensing and manufacturing of the technology developed for the detection tool.

Creation Date	19 February 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TOUK20160219001

Details

Description

A Scottish SME has developed and patented a self-checking non-invasive, patient friendly breast tumour detection tool.

Having successfully licensed the original checker and launched commercially the company have sought to improve the technology further and are raising funds to manufacture a new version of the tool. Development is underway on a clinical version of the product combining light and using the doppler ultrasound method to interrogate a breast lump for presence of angiogenesis or neovascularisation. The presence of a life-threatening cancer requires development of a new blood supply to deliver oxygen and nutrients to facilitate rapid tumour growth. The company is looking for industrial partners for research co-operation, licensing and manufacturing of the technology developed for the detection tool.

Advantages and Innovations

The tool aims to allow the user to spot changes in the breast at an early stage and in such instances to seek advice from their own doctor. The domestic version is for home use and is specifically designed as an aid to breast awareness or to regular breast self-examination.

Light is transmitted through the breast tissues and in a preferably fully darkened room (such as a bedroom at night) the user observes brightness variations on the superior surface of the breast. Typically the tool is used once a month. Serial examinations using the handheld, battery powered unit, should show no changes from one month to the next*. A normal image does show superficial blood vessels as well as the nipple and areola dark against a mainly red background and this is normal

The motivation for the work is to provide women with a safe, easy to use device to check their breasts for any changes which indicates the need to get a medical opinion. About 1 in 8 women are diagnosed with breast cancer in their life time.

The company is looking for partners for research co-operation, licensing and manufacturing of the technology developed for the detection tool. They are also interested in discovering other applications for the tool.

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

The patents are listed below and they also hold a number of design rights.

United Kingdom Patent Office GB 2375672 B

German Patent Office EP1253856

United Kingdom Patent Office EP1253856

French Patent Office EP1253856

European Patent Office EPO5741888.1 (ex PCT/GB2005/001777)

United Kingdom Patent Office (IPO) P3032EPGB

French Patent Office P3032EPFR

German Patent Office (IPO) P3032EPDE

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Issuing Partner

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Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

The company is looking for industrial partners in the medical device sector for research co-operation, licensing and manufacturing of the technology developed.

Type of Partnership Considered

License agreement
Manufacturing agreement
Research cooperation agreement

Technology Offer

French research and development center of plastics and composite materials seeks research cooperation agreements.

Summary

A French R&D centre specialised in plastics and composite materials offers its 30 years old expertise to industry and research. The R&D centre is offering a wide range of services in terms of applied or fundamental research in processes and materials in plastics, polymers and composites. The center is interested in research cooperation agreements, technical cooperation agreements and license agreements.

Creation Date	26 January 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOFR20160126001

Details

Description

A French research institute specialized in plastics and composite materials offers its expertise, design assistance and consulting to industry and research. The French research and development centre's research focuses on four main technical sectors.

First, research focuses on surface and interface phenomena through a patented method of metalizing a non-conductive plastic substrate. Expertise also includes the development of polymer mixtures and formulation allowing performance and lightweight of thermoplastic materials for transport. The centre is also specialised in materials for energy efficiency in transports.

Other priority of the centre is research on the relationship between the materials development and final properties; it focuses on the substitution of Virgin material by recycled material from end-of-life vehicle (ELV).

The R&D centre finally develops bio-sourced and recycled materials focusing on recycling of polymers, on development of multi-layer bio-sourced films or bio-sourced films using blends, on processing of PLA (polylactic acid) -improvement of thermo-mechanical properties and on study of aging of PLA and surface treatment of PLA.

In practice, the institute can offer the following services to industry:

- Compounding,
- Formulation of thermoplastics
- Optimization of thermoplastic material processing, improvement of material physical

properties;

- Development of formulations, hybrid materials (hollow glass microspheres, metal);
- Formulation and processing of bio-sourced materials;
- Design and rapid prototyping;
- Chemical Analyses;
- Component analyses;
- Physical and chemical analyses;
- Behaviour studies;
- Mechanical and rheological analyses.

The R&D center is equipped with a BUSS mixer, a twin-screw extruder fitted with two side feeders, liquid injection systems, a twin-screw extruder of laboratory (450°C maxi), haake mixer, Injection presses, extrusion lines, an extrusion blow-moulding machine, a blown film machine, an extrusion sheet line and thermoforming machines.

This laboratory works in close collaboration with the technology transfer center; this is the reason why all the research topics are directly linked to industrials' needs.

The R&D centre proposes services to industrials coming mainly from automotive, transport and aeronautics sectors but also from food packaging and construction materials sectors and needing to integrate R&D into their products and projects development processes. They are interested in research cooperation agreements with industry but also with research institutes. They are also open to collaborate in the frame of EU projects such as Horizon 2020 projects.

Advantages and Innovations

The R&D centre's key strength lies in its capacity to bridge the gap between formulating polymer materials and their final processing and end-product.

Stage of Development

Under development/lab tested

IPR Status

Other

Network Contact

Issuing Partner

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Client

Languages Spoken

English
French

Client Country

France

Partner Sought

Type and Role of Partner Sought

The R&D centre would like to collaborate with industrials (mainly coming from the automotive, aeronautics, food packaging and construction materials sectors) wanting to develop projects and products including new polymers materials such as composite or thermoplastics materials.

They are also interested in collaborating with universities or labs looking for skills in polymers characterization, formulation or processing.

The centre is interested in research cooperation agreements and technical cooperation agreements. They are also open to collaboration under EU projects.

Type and Size of Partner Sought

University,R&D Institution,251-500,SME 51-250,>500

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Technology Offer

Additive manufacturing design and engineering software

Summary

An Italian SME developed a software for structural design of industrial products to be obtained with additive manufacturing technologies. The tool is based on finite element method and can be used to design new products starting from specifications as well as for re-engineering of existing parts, starting from scan data or cad models up to the definition of a new free-form surface model optimised for additive manufacturing. Industrial partners sought for technical cooperation and research

Creation Date	11 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	TOIT20151222001

Details

Description

An Italian engineering company developed a software that allows to design structural parts to be produced with additive manufacturing technologies. The software integrates functions of commercial FEA (Finite Element Analysis) codes, like LS-Dyna & Abaqus for topological optimization and process simulation, in order to get an optimised product considering not only structural and/or thermal product specifications, but also the new technological process constraints. The topological optimization is carried out based on anisotropic material related to layer by layer construction. Manufacturing constraints related to the need of orientation and the use of supports are taken into account in the product definition. Geometrical distortions due to the thermal-structural additive process are taken into account for the dimensioning and tolerancing. The software allows to obtain a free-form surface model as an output.

Manufacturers of components or machines are sought for technical cooperation or service agreement, for prototyping or as end-users. Potentially interested industrial sectors are aerospace, race and sport cars, medical sectors.

The company is also interested in joining a consortium participating to the call FOF-01-2016: Novel hybrid approaches for additive and subtractive manufacturing machines.

Main countries of interest are France, Germany, UK, Spain, Switzerland, Russia, China, USA.

Advantages and Innovations

The proposed methodology absolute innovative key aspect is the integration of functions currently available in several different tools, during the following phases of the product development process:

- Setting up the optimization problem
- Designing an organic structure model
- Defining the semiworked part

The availability of process simulation and Geometric Dimensioning & Tolerancing (GD&T), integrating peculiarities of Additive Manufacturing (AM), allows to get a new comprehensive

design methodology, with the benefits of:

- Accurate product definition
- Optimum structural geometry
- Tolerance definition
- New concept design
- Process stabilization & optimization:
- Semi-finished part definition
- Semi-finished part orientation
- Toolpath & speed optimization
- Layer discretization

Stage of Development

Concept stage

IPR Status

Trade Marks

Network Contact

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Languages Spoken

English
Chinese
Russian
French
Spanish
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:
Manufacturer of components
Manufacturers of machines
- Specific area of activity of the partner:
Aerospace, race and sport cars, medical
- Task to be performed by the partner sought:
End-user, Prototyping

Type of Partnership Considered

- Services agreement
- Technical cooperation agreement
- Research cooperation agreement

Technology Offer

Computer programs and education for control and improvement of manufacturing and administrative processes

Summary

A Hungarian SME developed a quality improving (profit producing) package containing teaching quality tools and software elements. Its biggest advantage is the ability of consultation for implementing the tools and profit demonstrating capabilities. Main target groups are management professionals interested in improving quality by implementing Six Sigma and Lean programs. Commercial agreement with technical assistance is considered in Romania, Slovakia, Czech Republic, Croatia and Serbia.

Creation Date	03 February 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOHU20151209001

Details

Description

It is a limited partnership company established in 1997. This Hungarian company deals with developing software solutions as well as training and consulting services in the field of quality. This works through monitoring of running processes by statistical tools (e.g. control charts, capability analysis, etc.) in order to minimize waste.

By using the package offered - software and method - it is possible to reduce the variation of processes that results in a greater stability and predictability of the process. The single tools are generally known. Its novelty lies in their integration in one package with computer program and extra consultation added.

The quality improvement programs (Six Sigma and Lean) using statistical methods have some unique features: entirely oriented to profit, renders a quality breakthrough (achieved quality better than 3.4 ppm), emphasis is put on data measurement and analysis, data based decisions, defined steps in the quality improving program, special infrastructure, etc.

Old method focuses on testing either final sampling or 100% selection after production has been changed, whereas:

The new method focuses on achieving the required quality during production by applying the software and methods during production.

Without any investment the least variation can be achieved by the removal of assignable causes of process variation. The method can be used in all processes influenced by chance (in both industry and administrative fields).

Type of partnership considered by the Hungarian SME: commercial agreement with technical

assistance through education and consulting services, including selling software and development of processes by statistical tools.

Education can transform the mind of the employees, resulting in increased profits. During the delivery of consulting services they “live together” with the client company offering the opportunity to shape the mindset of employees.

Contract is concluded for selling software and/or providing consulting services to increase profits by improvement of processes with statistical tools and orienting the mindset of the company and its employees.

Advantages and Innovations

- Integrated solution.

Majority of their competitors have tools packed into several modules. The company offers the most important quality tools in “one place” thereby achieving a good performance to price ratio.

- Compatibility.

Quality tools can be used in all industry sectors, where random occurrences can have impact. Variation is unavoidable, however it can be kept between limits by using statistical methods with software.

- Best practice based operation: Six Sigma and Lean.

The computer program offered fits well into the quality field, especially for professionals who have Six Sigma and Lean quality improvement needs.

The Six Sigma process improvement programs provide a Return of Investment (ROI) of between 1:5 and 1:10 (see EOQ opinion) and the general profit is about USD 150 thousand (Juran Institute).

Stage of Development

Already on the market

IPR Status

Other

Comment Regarding IPR status

Know-how is generally known – they provide tools (software) and consulting services to use the know-how.

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Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Hungarian

Client Country

Hungary

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:

They can work together in all fields of life where outcomes are affected by chance, e.g. industry, administration field and services.

- Specific area of activity of the partner:

Any fields of activities are possible matches where processes are involved, and where there is an aim of having a predictable process with minimal variation without the need for investment. Employees and management professionals of industry, administration field and services are the end users.

- Task to be performed:

Quality improvement of processes for increasing profit (by the way of reducing variation of processes). The partner buys the integrated package and together with the Hungarian SME they jointly apply it to the field specific processes.

Type and Size of Partner Sought

SME 11-50, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Professional drug interaction verification system

Summary

A Hungarian SME developed a drug interaction verification system that can be connected to medical databases in the EU. It supports drug safety and the professional decision of doctors. The target audience are doctors, pharmacists, surgeries, hospitals, healthcare webpages. The company would like to take part in creating EU drug databases so it is looking for partners for technical cooperation and financial supporters. Research cooperation in the framework of EU projects can also be an option.

Creation Date	04 February 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOHU20160204001

Details

Description

The Hungarian SME is one of the market leaders in developing healthcare-, pharmaceutical- and medical-databases and software. The company has 15 years professional experience of connecting / integrating healthcare databases.

The free medical information software for doctors is suitable for ensuring the communication between patient and doctor and supports telecuring by providing an IT base.

Interaction between drugs can highly affect the success of the therapy. The drug interaction verification system supports the decision of the doctors in the choice of the right medical therapy so serious and life-threatening drug interactions can be avoided. The system is used in hospitals and in surgeries. Thousands of doctors use this drug-information system. The company would like to develop this system further by integrating foreign medical databases. The plan is to connect civil users to this system in order to ensure an IT base for the communication between doctors and patients, which would provide a solid base for telemedicine.

The module differentiates nine interaction levels and the system examines interactions not only between medicines but between medicines, herbal remedies and food supplements. Civil users can also use the system as the system offers medicine after analyzing the symptoms of the illness.

For the development of the software, the company is looking for financial/technical partners. In case of an international cooperation, it would be possible for patients to look for treatment abroad and the system would have an international network of doctors. It also allows the sharing of professional experience. The system supports further improvement of international health development. This service can be easily introduced to mobile applications and used to

enlarge databases.

The company is also looking for foreign partners with whom they could achieve their objectives within the framework of EU projects.

Advantages and Innovations

This drug interaction verification system monitors potential interactions not only at drug description level but according to international scientific re/sources. The module differentiates nine interaction levels and examines interactions not only between medicines but interactions between medicines, herbal remedies and food supplements.

Modules

- interaction between medicines and food supplements
- interaction between medicines
- interaction between herbal remedies and medicines
- international drug database
- international doctor recommendation system
- communication between/among doctors within the EU
- communication between/among patients and doctors within the EU
- connection of medical databases within the EU
- medical applications for mobiles

Stage of Development

Already on the market

Comments Regarding Stage of Development

The system is on the market in Hungary.

IPR Status

Exclusive Rights

Network Contact

Issuing Partner

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Client

Languages Spoken

English
Hungarian

Client Country

Hungary

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Investors, SMEs
- Specific area of activity of the partner: medical database developer companies, medical software developer companies

Task to be performed:

- common development of the software to be connected to European databases
- invest into the development of the software
- research cooperation in EU project proposal

Type of Partnership Considered

Financial agreement
Technical cooperation agreement
Research cooperation agreement

Technology Offer

Method for manufacturing powder metallurgy magnets

Summary

Andalusian research group has developed a new method for permanent magnets production, mainly those containing rare earths in their composition. It substitutes the conventional press+sinter method by a quick consolidation technique, based on a FAST (Field Assisted Sintering Technique) process, simplifying the magnet manufacturing and reducing the fabrication cost. They look for companies or research centers interested in license agreement, research cooperation agreement or technical cooperation

Creation Date	02 December 2015
Last Update	25 February 2016
Expiration Date	25 February 2017
Reference	TOES20151014001

Details

Description

The research group is located in the south of Spain. Its main activities are focused on the following fields: nanomaterials, development of sintered materials from aluminium moulds for transport industry, modeling and use of the electrical resistance sintering, diagnosis and restoration of the cultural heritage and working risk prevention.

The main innovation of the described method is the way to consolidate the material in order to obtain the magnet. Field assisted sintering techniques, as electrical resistance sintering or electrical discharge consolidation/sintering, are techniques where the sintering process is carried out in a very quick way, even less than one second, therefore being possible not to use controlled atmospheres to avoid the material interaction with atmosphere. On the other hand, the technique allows obtaining magnets with the desired final geometry, the whole time of the process with the material in the same container.

Many electrical and electronic applications make use of permanent magnets, in many cases of small size, as those mainly aimed to produce with this manufacturing technique. Many sector are continuously using such devices in their products, and therefore, makers of such devices could be interested in the developed method.

The international market of permanent magnets is growing and is expected that it will generate around 14 billion euro by 2020 through their use in basic technological applications. Good examples are their use for transport (cars, bicycles, vans...), electrical appliances or for eolic turbines generators.

A good impact on the international market is envisaged since lower cost and higher quality during the production process will be achieved using this innovative production method.

They look for partners to sign a licence, research or technical cooperation agreement in order to bring the new technology to the permanent magnets market or collaborate in further developments and applications according to the requests of the clients. The specific way of collaboration will be agreed with the final client, depending on the mutual interest.

Advantages and Innovations

The conventional method of press followed by furnace sintering is now substituted by an electrical consolidation method. This allows joining in a single step the previous pressing/sintering processes, and, due to the promptness of the process, the use of controlled atmospheres is not necessary. The steps of magnetization, and eventual thermal treatments, can be carried out in the same container, without being necessary to manipulate the product

Advantages: The simplification of the consolidation process, and the possibility of finishing the magnetization without being necessary to manipulate the product, makes this method economically attractive. The use of thin dies during the FAST process allows the magnetization coil to be very near the powder, improving results. On the other hand, the process can produce very small parts with the final or very near the final desired shape, with a clear advantage on the field requiring these small near-net-shaped parts.

Stage of Development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Network Contact

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Client

Languages Spoken

English

Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type of partner sought: Companies and Research Centers

Specific area of activity: Permanent magnets, rare earth, electrical resistance sintering, electrical discharge consolidation/sintering

Type of cooperation sought:

- A licence agreement, in order to bring the technology to the market
- A research cooperation agreement, to collaborate in further development of this technology
- A technical cooperation agreement, to adapt the technology to specific needs

Type and Size of Partner Sought

SME 11-50, University, Inventor, R&D Institution, SME <10,>500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Technical cooperation agreement
Research cooperation agreement

Technology Offer

An embedded Augmented Reality Vision system, guided by pointing gesture recognition.

Summary

A Spanish research Group with a wide information and communication technology (ICT) industry collaboration experience at Embedded Electronic Systems for e-Health sectors, has developed and designed a new Augmented Reality Vision system for embedded systems. It is guided by pointing gesture recognition and is focused on e-health and medical sector operation. Group is offering a knowledge transfer and project collaboration of the mentioned system to set up a technological cooperation agreement

Creation Date	28 January 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20151228003

Details

Description

At present, the great majority of current Augmented Reality (AR) applications are built using general purpose processors as development platforms where the processing tasks are executed in software. However, software execution is not always the best solution for the high intensive requirements of the many processing tasks involved in AR, and it inevitably constrains frame rate and latency, which compromises real time operation, and magnifies size and power consumption, hindering mobility.

Since there are many situations in industries where workers can not operate using hands and need a fast gesture interface to see and map information in real time in a AR fashion, a Spanish research group with a wide information and communication technology (ICT) experience at Embedded Electronic Systems for e-Health sector, has developed and designed a new Augmented Reality Vision system for embedded systems.

The Augmented Reality (AR) applications developed are based on Field-programmable Gate Array (FPGA) platform. This system is characterized by the following features:

- Frame grabber. With the aim of processing video it has been developed a frame grabber which accepts standard analogue video signal, converts it into digital and stores it in memory.
- General purpose of the user interface is to give flexibility and versatility, and to ensure fast re-design of the hardware architecture for enhanced or new applications. The core is made up of hardware components and software functions in different levels. Thanks to the core it is possible to present text information in a Video Graphic Array (VGA) monitor to the user, who can navigate through menus, select options and configure parameters by means of a pointer device. So, it provides the flexibility of adapting the systems to the user requirements or preferences

allowing:

- Display of text and text fonts
- A pointing device. Including gesture recognizing techniques
- Generation of video signals. The platform can generate signals for displaying video on monitors and analogical screens. The generation of the synchronization and RGB signals for a VGA monitor is carried out by the VGA generator module, which can be configured to generate different resolutions.

The research group has successfully validated the usefulness of the described platform in an application for people affected by a visual disorder known as tunnel vision. It consists in the loss of the peripheral vision, while retaining clear and high resolution central vision. It is like looking through a keyhole.

Therefore, the developed system allows not only display of text and images but also can give workers new vision control of many camera features. For example: zoom in, zoom out , focus, face recognition,... and in case of special cameras it can be adapted to infrared ,thermal or other kind of vision systems.

Concerning end-user applications, they are wide and the research group expects that will be fostered with the deployment of several light AR glasses nowadays, already in prototype, like Google´s.

The research group is offering a knowledge transfer and project collaboration of the mentioned system, in order to close a technological cooperation agreement.

Advantages and Innovations

Compared to traditional solutions of current Augmented Reality (AR) applications are built using general purpose processors as development platforms where the processing tasks are executed in software. However, software execution is not always the best solution for the high intensive requirements of the many processing tasks involved in AR, and it inevitably constrains frame rate and latency, which compromises real time operation, and magnifies size and power consumption, hindering mobility.

Stage of Development

Already on the market

IPR Status

Other

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Industry
- Specific area of activity of the partner: System is guided by pointing gesture recognition and is focused to e-health and medical sector operation
- Task to be performed by the partner sought: Technical cooperation agreement.

Type of Partnership Considered

Technical cooperation agreement

Technology Offer

Brussels-based company reconnects elderly with their direct environment with an innovative userfriendly service

Summary

The Brussels-based SME reconnects generations, multiplies and facilitates communication for elderly people by developing a family TV channel linked to any family member's smartphone, tablet or computer. The solution consists in an application to be integrated in set-up boxes of European telecom providers. The company is looking for European content managers, product managers and business development managers for commercial agreements with technical assistance.

Creation Date	20 January 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TOBE20151208001

Details

Description

The proposed solution consists in two applications:

- one web platform (+ mobile application) specifically made for family members that give them the opportunity to send content (photos, videos, messages, audiovisual calls) to their elder's TV.
- one web application (URL) to be integrated in middlewares of set-up boxes of European telecom providers. This application will make elderly people able to receive content from their families on their TV in a very simple way.

The company would sell a licence to Telco providers for the opening of each account as white label or as a combined offer.

Using Telco infrastructure is mandatory (set-up boxes + wifi connexion) to get access to the solution.

For an easy-to-use user experience on the elderly side, a button on the remote control has to be assigned to the solution. In other words, the proposed service is seen as a new tv channel for the elderly.

Advantages and Innovations

The advantages of the solution are twofold:

a) For the elderly and their direct environment: Thanks to this innovative solution, family members can share moments of their lives in direct link with their senior's TV and phone. This solution is considered the simplest communication tool in the world and is specifically made for elderly people who are not used to use technologies. Only one button of their remote control is necessary to have access to all their family members' daily lives.

b) The solution also presents advantages for the telecom providers: it aims at animating a family portal in order to ensure a constant creation of content. As such, the solution contributes to the acquirement of more internet subscribers and helps to reach elderly people that are not currently interested in internet services.

The solution is unique and innovative because it makes use of existing basic communication tools to avoid social inclusion of the elderly. There is absolutely no change in their habits and this makes it so special and acceptable by the majority of elderly living alone at home. Elderly in loss of autonomy are not able to learn new complicated things and are afraid of new technologies. This tool reconnects those people without anything to learn. Simplicity is the major differentiator in comparison with tablets or simplified computers that require efforts and support.

Stage of Development

Available for demonstration

Comments Regarding Stage of Development

Available for demonstration

IPR Status

Trade Marks, Copyright

Network Contact

Issuing Partner

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Client

Languages Spoken

English
French
Spanish

Client Country

Belgium

Partner Sought

Type and Role of Partner Sought

The company is currently looking for European telecom providers that are looking for more family-related content.

Target partners are European content managers, product managers and business development managers willing to integrate the solution in their offer and to engage in a commercial agreement with technical assistance.

Type and Size of Partner Sought

>500 MNE

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Online load control for pipe jacking

Summary

A German SME offers an online load control quality assurance system that helps to avoid damage to jacking pipes. Using special measuring devices the angular deflection between selected pipes is measured and the permissible jacking force is calculated, allowing to take countermeasures. The system prevents overloading of jacking pipes and recognizes problems on site at an early stage. Data and analysis are accessible online. Partners are sought for commercial agreements with technical assistance.

Creation Date	11 February 2016
Last Update	17 February 2016
Expiration Date	17 February 2017
Reference	TODE20160211001

Details

Description

The stress of jacking pipes caused by installation progress is largely determined by the amount of jacking forces, but also by the angular deflections of jacking pipes as a result of machine countermeasures. A prevalent cause of damages to jacking pipes is an overload of the pipe material inside the pipe joints.

Research results of a German university have shown that especially the material behaviour of the pressure transfer rings, arranged for the dispensation of pipe jacking forces, have a high impact on the dispensation of compressive stresses inside the joint between jacking pipes. The wood-based materials solidify with increasing jacking length due to the high number of load cycles. Hereby the basic ability to disperse the high jacking forces in the joint between the pipes is lost to some extent. The consequences are high stress spikes and local exceedance of the compressive strength. As a result, spalling, delamination or cracking of jacking pipes can occur.

A spin-off company of this German university now offers a system and solution based on these research results:

By use of special measuring devices, the angular deflections at selected pipe joints can be determined by measuring the joint between the pipe faces at four positions during jacking-process. Simultaneously the hydraulic pressure to the cylinders at the main and intermediate press stations and in addition included the extension lengths of the intermediate stations are recorded. The measured values are transmitted via converter to the evaluation software, set up on screen display inside the press container to provide all data to the machine operator and all project participants.

The use of the monitoring system ensures that the jacking pipes do not get overloaded during the installation process so that high costs caused by pipe damages can be avoided. By

determining a possible overloading of the jacking pipes, the utilization is signaled so that countermeasures (angle corrections, use of intermediate jacking stations or additional greasing) can be taken.

All measured and calculated jacking data will be documented gapless and serve to demonstrate pipe jacking without damages. By installing the online load control (OLC) system and the subsequent commissioning, the work on construction site is not hindered. Because of no significant changes to the jacking pipes and the machine technology, high costs can be avoided and the system can be extended quickly in critical jacking situations. The use of monitoring pipe jacking by OLC assures the client's required quality of their pipes and allows a low-risk and proven performance to the executive jacking companies on site. With the possibility to use the intermediate jacking stations when needed, OLC helps to increase the economic efficiency.

Partners are sought for commercial agreements with technical assistance. Partners could be public sector, civil and underground engineering, construction, pipe jacking.... The German company can offer installation and monitoring service or transfer operating know-how and train the partner's staff.

Advantages and Innovations

- Avoids damage to the jacking pipes at an early stage as unlike other systems, this system measures and communicates data every two seconds
- Helps to take countermeasures (angular corrections, use of intermediate station or additional greasing) when needed
- Gapless documentation and continuous reporting of all measured angular deflections and calculated jacking loads
- Graphical evaluation at every second for all project participants online
- Low costs in the range of max. 1 permille of project costs

Stage of Development

Already on the market

IPR Status

Secret Know-how

Comment Regarding IPR status

Based on research findings of a German university.

Network Contact

Issuing Partner

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Client

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

Partners sought:

Municipal sewer operators, network operators, building enterprises, civil and underground engineering, pipe jacking companies or application agents to implement the technology in their projects within commercial agreements with technical assistance. The German company is ready to support installation and offer all relevant services or to transfer operating know-how.

Type of Partnership Considered

Commercial agreement with technical assistance

Technology Offer

Novel content management system based on semantic and machine learning techniques

Summary

A Spanish technology based SME has developed an innovative content management system that optimizes business processes in organizations by storing in XML all content and services to be processed visual and electronic formats (HTML5, WML, PDF, DVB, XML, etc.). As an information management tool, it provides additional security, scalability and flexibility. They are seeking IT partners or end users for technical cooperation and/or commercial agreement with technical assistance.

Creation Date	26 May 2015
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TOES20150518001

Details

Description

Nowadays companies and organizations are challenged to manage, update and reuse all the information generated progressively. Customer engagement must be improved to reduce costs as much as possible. Therefore, some changes and updates have to be made in available services & products at the right time and in a correctly manner for users/consumers.

A Spanish Technology Based Enterprise has developed a novel semantics content management environment and web application that combines simplicity and power in a visual tool for automatic generation of portals and web applications, DTV (Digital TV), mobile platforms, etc. Its power and modularity allow its use as a Content Management System (CMS) for Web Content Management (WCM), Mobile Content Management System (MCMs), Enterprise Content Management (ECM) or Document Management (DM). This innovative IT platform uses semantic and machine learning techniques to build a smart model over existing data, services and content.

The tool aggregates, normalizes and transforms data sources that contain structured and non-structured data to manage, edit, analyze and publish information as data and multimedia content: connect databases, spreadsheets, text sources, stream data sources, web, video, social networks and images.

Some features are:

- Freely licensed under GNU Affero. The SME has developed a commercial version to extend certain functionalities and/or facilitate the integration of third party technologies.
- It provides all the functionality of content management and document management into a

single visual product accessible from a web browser.

- Role management is very open and flexible and enables users to simultaneously work in different departments in a controlled environment thanks to its high granularity approach on atomic actions.
- It provides a powerful WYSIWYG editor for XML that displays the final aesthetics of the website when published.
- It represents the contents based on semantically enriched XML schemas. The provided abstraction facilitates the exchange of information (aggregation, syndication) and reuse of all content, as well as the associated business logic (java classes, php code, etc).
- It uses templates for document edition (PVD) represented in RelaxNG. The transformation is done using templates (PTD) as described in XSLT or DEXT, a simple scripting language oriented to facilitate transformation rules definition by non-technical personnel. DEXT scripts are automatically compiled into XSLT templates.
- It provides a decoupled publication system in the cloud.

The Spanish SME is seeking IT partners for technical cooperation and end users for commercial agreement with technical assistance.

In case of final users, they will provide their needs and specifications to receive fully technical service (implementation according to needs, technical skills for right use) by the Spanish SME.

Technical cooperation will be approached with Regional/Local IT Partners. This will imply tasks like sales, marketing and joint training in their area, technical cooperation for upgrading technology, technical support (at least level 1-2) in terms of local installation, help-desk (technical incidences and questions).

Advantages and Innovations

Advantages

- It simplifies the creation and maintenance of web portals.
- It reduces grammatical development and integration terms and efforts.
- It reduces exploiting associated resources.
- It empowers recycling of content, data and applications.
- It ensures full technological independence and adaptation to future standards.
- It allows a quick start production.
- It makes possible simultaneous publication in disparate and remote environments.
- It facilitates migration between technologies and enables the use of all available alternatives.
- It automates the adaptation of web portal accessibility standards (W3C WAI) and interoperability.
- It simplifies all aspects of electronic publishing: syndication and aggregation, processing, presentation, workflow, editing, etc.
- - Its openness is a commitment to provide corporations with full control of information to freely structure information and choose components (servers, ddbb) or rendering formats (html5, RDF, php, json, RoR)
- It can be chosen at any time: maximum interactivity (publishing on last generation frameworks as Django, Ruby on Rails, HTML5, ...) or maximum scalability (load balancing -LB- and High Availability -HA- configurations, freedom to choose any application or web server, etc.), or a mix of both.

Innovations

- It generates and delivers multichannel content in any technology without performance limitations.
- It guarantees that data&contents are adaptable to new trends, even without upgrading.
- It provides an additional level of security, flexibility and scalability, fully aligned with the cloud-computing paradigm and with the semantic web vision, hiding the complexities from the users' eyes.

- It is the only CMS (Content Management System) that can publish at the same time to a completely dynamic website (e.g.: as PHP, JSP,...) or its static version (e.g: HTML pages).

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type of partners sought: SME, Industry, University, Public Administration

Depending on the profile of the partner, the respective and following tasks are expected to be performed:

1) Final users from any sector or activity that:

- Need to manage the contents of his organization,
- Need to manage security in content creation and information flows (Website administrator)
- Need to use a development environment capable of recycling the components (Integrators)
- Need a full document management environment (entire organization)

Commercial agreements with technical assistance are sought for final users. They will provide their needs and specifications to receive fully technical service (implementation according to needs, technical skills for right use) by the Spanish SME.

2) Technical cooperation with Regional/Local IT Partners for:

- Sales, Marketing and joint training in their area. They will identify needs / users, implement the tool and provide support for a right exploitation of the technology.
- Technical cooperation for upgrading technology as well as adaptation of the tool to specific requirements of their area or clients (language issues, standards, technical changes...)
- Technical support (at least level 1-2) in terms of local installation, help-desk (technical incidences and questions)

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement

Technology Offer

Novel social tool for capturing and analyzing information published in social networks

Summary

A Spanish SME has developed an IT tool based on a natural language processor to monitor and analyze information 3.0 published on the Internet. It can extract positive, negative or neutral opinions from the internet and generate a summary and qualitative report. This technology has been designed and developed to work with Latin-based languages as a novelty. They're seeking IT partners or marketing consultancy that provides services based on the Internet for technical cooperation agreements.

Creation Date	02 December 2015
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOES20150601001

Details

Description

Nowadays, the rise of the social media allows every person to communicate with other people. This, along with the increase of the number of smartphones and wireless connections to the Internet that make it possible to stay connected anywhere, anytime, has converted the social networks not only in an international reference but also into a very important source of information and communication.

Companies, institutions and organizations see social networks as a clear opportunity to reach their clients, users or employees, but at the same time the independence of the media facilitates a continuous threat in the way of that negative opinion can spread rapidly.

Because of the amount of available information and the virality of the media, it is necessary to have systems that can extract and compress the information in order to know what is happening, what is the opinion of their users, what are they thinking about the competition or the sector, etc... and therefore, taking better decisions that allow the execution of agile and optimal actions on the media.

A Spanish SME has developed an IT tool to monitor and analyze information published in several sources of the Internet (social media analytics).

The tool includes a natural language processor specially designed for 2.0 environments to obtain positive, negative or neutral opinions/comments as well as important issues. Besides, this tool is capable of generating a resume of main ideas collected.

This solution runs through two phases, an initial information capture (real time or downloaded

for local processing) and a second analysis of the captured information in order to synthesize, extract useful data for exploitation by any entity with a presence in social networks.

This active listening tool can gather information from the "Internet of people" about what is happening, the opinion or feeling about a specific topic and who are the most influential people: Information webs, forums, blogs, social networks Twitter, Facebook, YouTube, interest, Instagram or Google+), digital newspapers and magazines.

The results achieved by this tool can be shown via dashboard. This will make easier some actions: deep sector knowledge, positioning of an entity, performance of data obtained.

Main features of this tool are:

- Extraction of relevant terminology.
- Topics identification.
- Trending topics identification.
- Elaboration of summaries about what is happening.
- Influential users' identification.
- Detection of the polarity or sentiment of comments.
- Offensive language detection.
- Identify the causes the lead to a change of trend.

The Spanish SME is seeking collaboration with regional/local IT services partners and/or providers of advanced marketing services for technical cooperation. They will contribute in their area to sales, marketing, integration & implementation of the tool in final users, technical support and upgrading of the technology among main tasks.

Advantages and Innovations

Innovation:

- Algorithmics are oriented to Spanish.
- Application of advanced techniques of natural language processing (text mining, ontologies, big data).

Advantages:

- Most of the ICT tools similar to this one are only able to correctly analyze English language. The technology hereby exposed has been designed and developed to work with Latin-based languages.
- It is capable of generating qualitative reports so it can drive to better decisions in terms of strategy, communication, client policy, quality management.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Companies, SMEs,

Partners should be active in any of the following areas:
ICT services and advanced marketing

- Task to be performed by the partner sought:

Technical cooperation with regional/local IT services partners and/or providers of advanced marketing services to carry out the following tasks:

- Sales and marketing in their area by including these tools in their portfolio of services. They will identify users and needs and provide support for a right exploitation of the technology. They will be trained by the Spanish SME.

It is also welcome the integration of this technology in own tools of interested partners (e.g. CRM)

- Technical cooperation for upgrading technology as well as an adaptation of the tool to the specific requirements of their area or clients (language issues, standards, technical changes...), application/use in other contexts and parameterization of language.

- Technical support in terms of local helpdesk (technical incidences and questions)

Type of Partnership Considered

Technical cooperation agreement

Technology Offer

Universal Release Access System

Summary

A Spanish SME has patented and developed a hardware device that provides new ways of user recognition, communication-interaction with electronics and encryption of information, etc. It's capable of unifying the above qualities as well as portability and easy handling in a single device. The communication protocol between sender and receiver is patented since it improves data encryption standards and increases safety. Financial investors are sought for mass production and technical cooperation.

Creation Date	27 January 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TOES20160121003

Details

Description

The development team is made of business and technology professionals with over 10 years experience. They came to develop a unique, disruptive and marketable solutions to resolve various security issues.

Due to the extensive knowledge of computer security and cryptography, it was decided to develop a technology to go beyond the state of art. They carried out many tests on similar systems to identify weak points.

They initially focused on the banking sector (online environments) checking difficulties throughout all its processes related to the user signature and recognition.

Thanks to the developed technology hereby exposed, concepts like credit cards and debit cards, passwords, PIN codes, etc. are avoided since a single device recognizes the user fingerprint password.

A Spanish SME has patented and developed a hardware device that provides new ways of user recognition, communication-interaction with electronics and encryption of information, etc. It is capable of unifying the above qualities as well as portability and easy handling in a single device. The communication protocol between the sender and the receiver is patented since the algorithm used by this protocol improves data encryption standards, thus providing improved safety.

This technology facilitates user identification through remotely activated biometrics remote. It can send information in several formats wave such as RFID and Bluetooth. Therefore, it shows a wide range of useful application, from service management and access control, sensitive operations firm, Home & Mobile Banking, both physical and virtual to ATM (Automated Teller

Machine) cash management and online.

Financial investors are sought to meet capital needs for mass production. They should also provide technical support and expertise in the design and implementation of the business plan.

Advantages and Innovations

Advantages

- Unique recognition in a single, secure device for different tasks (financial and non-financial) in several environments by enhancing multichannel services and user interaction with the systems being managed.
- Avoid multiple credit cards or debit prevents access multiple keys; avoid multiple user passwords and prevents PIN and tedious processes of recognition.
- It allows secure access to different electronic systems and interact with them, manages physical and virtual access.
- It is lightweight, portable, easy to use, intuitive and comfortable.
- It can support on Big Data analytics to provide added financial management, direct marketing and cross values. It opens a door to new personalized services.

Innovation

- It is a standalone device that is activated by reading the fingerprint and recognizing unambiguously the user and issues (NFC / RF / Bluetooth) a signal containing an encrypted algorithm.
- It provides maximum security through anti-handling, biometric recognition system and sending information by encryption algorithm without having to remember passwords.
- Extensive scalability: it can be integrated with external systems via API so implementation and scalability about any of the functions is wide.

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

Patented device.
Patented encryption algorithm data.
Both developments are protected by a PCT patent.

Network Contact

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Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type: Investors

Role: Financial resources are sought. Potential partners will provide capital for mass production of the technology. They will also assist to define the final product, strategy and business plan.

Type of Partnership Considered

Financial agreement

Technical cooperation agreement

Technology Offer

Inertial sensor technology for a real-time functional detection of human movement

Summary

An Italian company has developed a new inertial sensor technology to contribute to technical and scientific evaluation of the functional and physiological human movement. The device has the aim to provide the necessary data to anyone who needs to plan properly targeted training (a physical training or rehabilitation) or simply monitor the physical state of the person. The company is looking for commercial agreement with technical assistance in the fields of medical, healthcare, sports services.

Creation Date	08 February 2016
Last Update	26 February 2016
Expiration Date	26 February 2017
Reference	TOIT20160205001

Details

Description

An Italian small company has developed a new inertial sensor technology for a real-time functional detection of human movement. The technology is a measurement tool able to analyze the movement of any body segment. It contains the latest generation components for carrying out accurate and repeatable measurements of acceleration, angular velocity and magnetic field in three dimensions. The device works with a Bluetooth data transmission that provides real-time measurements directly to the PC via software. Then, the software, with its scientifically validated algorithms, offers simplified data for processing and interpretation. Data could also be acquired without a PC, since the device is equipped with a MicroSD memory card.

This device allows to objectively evaluate and monitor joint functionality and muscle strength during rehabilitation phases and for training a specific area of the musculoskeletal system. It is used to quickly identify any posture deficiencies, problems or asymmetries. Thanks to the immediate delivery of the numerical values and the possibility to check periodically the obtained results and the effectiveness of the treatments, the device helps prevent relapses, complications and regressions of the disease or post-accident condition. Furthermore the sensor makes possible to perform motor movements that are more or less complex without limiting or influencing the subject, also due to the fact that it can be used outdoors and on any surface (grass, sand, unstable platforms, etc.). Consequently, It motivates the subject to constantly improve its conditions.

The company is interested to reach commercial agreement with technical assistance with partners active in medical, healthcare, sport services sector, interested to introduce the innovative device in ad-hoc structures, like post-trauma rehabilitation structures, or in rehabilitation protocols in hospitals and clinics. The company will make skills and technical services available to the potential partner. The final users could be sport or clinical professionals

like orthopaedist, physiotherapists, sports science's experts or trainer.

Advantages and Innovations

Thanks to its latest generation components, the device is able to supply acceleration measurements of up to 16g and angular velocities of up to 2000°/s with an acquisition frequency of 1000 Hz. Through these characteristics, the sensor allows to obtain data on time, in outdoors conditions and on any surface.

In detail, here below some of the innovative functionalities:

- quantify the deficit in terms of joint function or muscle strength between a limb and the contralateral or between the injured limb and the same limb prior to the accident;
- evaluate and measure the subject's balance in different situations and/or on different surfaces;
- monitor the exercise intensity with real-time visual bio-feedback via a work threshold that can be selected by the user;
- trace and report the subject's recovery during the entire rehabilitation process by means of the report functionality;
- evaluate and monitor athletic performance directly in the field.

Furthermore, the device has a user-friendly software interface and, comparing with other similar existing technologies, is low cost.

Stage of Development

Already on the market

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The partner sought should be a company interested in a commercial agreement with technical assistance. The potential partner should operate in medical, healthcare, sport services field in order to reach easily the possible final users: sport or clinical professionals like orthopaedist, physiotherapists, sports science's experts or trainer.

Type and Size of Partner Sought

SME 11-50, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Technical cooperation agreement

Technology Offer

A Turkish automotive manufacturer offers innovative cheap and environmentally friendly cooling system through manufacturing agreement and licensing agreement.

Summary

A Turkish automotive company located in Bursa, Turkey, is the second biggest industrial enterprise of Bursa and the sixth biggest industrial enterprise in Turkey. The company manufactures passenger and commercial vehicles and is increasing its competitiveness progressively with approximately 6,500 employees, and annual production capacity of 400,000 units. The Turkish automotive company has developed a novel cooling system and offers licensing and manufacturing agreement.

Creation Date	11 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	TOTR20160211001

Details

Description

Manufacturing for 5 global brands; Fiat, Peugeot, Citroen, Opel and Vauxhall, as part of Minicargo and the new Doblo projects, the company brings together 6 powerful global brands Fiat, Alfa Romeo, Lancia, Maserati, Ferrari and Jeep with the consumers in Turkey.

The company has invented a novelty cooling system. The innovative cheap and environmental friendly cooling system (ICECS) is a system where there is not any need to use a refrigerant which has high global warming potential (GWP) value. ICECS provide heating and cooling with air and air is used as refrigerant. The system doesn't need outside connection and works independently.

The innovative system uses less energy according to other competing technologies. The ICECS is small, light and cheap. The system provides roundable air flow without any moveable damper also the whole of system has no any moveable parts too. The first physical tests are completed and the company seeks partners for licensing agreement and manufacturing agreement for the invention.

Advantages and Innovations

Rivals of this novelty system using similar cooling techniques requires piping and instrumentation through a preset structure. They consume too much energy and they are

difficult to assemble. However, this new system eliminates all of these disadvantages.

There are also more advantages to mention as follows;

- The system does not need outside connection for heating and cooling as a heat pump does.
- The system provides roundable air flow without any moveable damper also the whole of system has no any moveable parts.
- There is no need to use any refrigerant which generally has higher GWP values.
- Airflow is provided by cooling energy without external energy.
- It is environmentally friendly.

Stage of Development

Field tested/evaluated

IPR Status

Patent(s) applied for but not yet granted

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

Turkish
English
German
French
Italian

Client Country

Turkey

Partner Sought

Type and Role of Partner Sought

The company is looking for partners with different roles: industrial partners for prototyping, demonstration and serial production activities under a licence agreement and/or manufacturing agreement.

Type and Size of Partner Sought

University,R&D Institution,>500 MNE,SME 51-250

Type of Partnership Considered

License agreement
Manufacturing agreement

Technology Offer

Embeddable device for the implementation of physically unclonable functions

Summary

A research team at an Italian university developed a new solution for integrated electronics security relying on chips with non-replicable private keys based on physical characteristics arising randomly during the manufacturing process (Physically Unclonable Functions). The novel circuit implements a perfectly stable PUF, eliminating the need for costly stabilization mechanisms. The group is looking for industrial partners for research, technical cooperation or manufacturing, license agreements.

Creation Date	26 January 2016
Last Update	17 February 2016
Expiration Date	17 February 2017
Reference	TOIT20160126002

Details

Description

An Italian university research team, with vast experience on telecommunications and signal technologies, developed a novel embeddable solution for integrated electronics security. Many integrated electronics applications need to ensure maximum security through technologies that can withstand sophisticated attacks. Research has focused on designing chips equipped with private, unique, and non-replicable keys, based on the physical characteristics of each individual chip, which arise randomly during the manufacturing process (PUF-Physically Unclonable Functions). PUF-based devices are used to protect the intellectual property of embedded software, allow secure machine-to-machine communications, and for payment systems based on smart-card readers and chip-based credit cards. However, current state-of-the-art solutions are unstable: although most of the time the PUF embedded in a given device will always generate the same secret password, that password may occasionally have one or more wrong bits. Since the secret password is used as a key in cryptographic systems, even a single wrong bit may render it useless. Protection against such instability requires 'stabilization' schemes, which make the devices more complex and costly. The new technology consists of a circuit developed especially to implement a perfectly stable PUF, thus eliminating the need for costly stabilization mechanisms. The solution relies on a circuit designed specifically to be used in PUF, and which can be adapted to chips produced by various different manufacturers. The developing team is currently looking for industrial partners for further testing and development of the technology and for industrialization purposes. Testing and co-development would be possible within research and technical cooperation agreements, further industrialisation activities under license or manufacturing agreements.

Advantages and Innovations

Compared to other technologies (e.g. those based on SRAM - Static Random Access Memory), the new device does not require additional stabilizing circuits, thus simplifying the process and reducing manufacturing costs.

The technology has been validated through analytical studies and simulations, while the upcoming development phase includes the launch of experimental validation efforts and the manufacturing of the first application prototypes.

Stage of Development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

Technology is patented, national patent extensions are ongoing

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The research group is looking for industrial partners interested in the technology for further development, including experimental validation and manufacturing of the first application prototypes.

The technology is primarily of interest to manufacturers of chips and micro-processors, and to a lesser extent to OEMs (Original Equipment Manufacturers) and manufacturers of integrated electronic devices and embedded software. The technology is also of interest to companies in the hardware security sector (smart cards, chips for payment systems, etc.).

Various possible cooperation options are available based on partners' specialization and market interest: research and technical cooperation for testing and further engineering of the solution as well as license and manufacturing agreement.

Type of Partnership Considered

- License agreement
- Manufacturing agreement
- Technical cooperation agreement
- Research cooperation agreement

Technology Offer

Novel technology for optimizing production in continuous-casting steel plants

Summary

A research team at an Italian university developed a novel solution for optimizing the production process in continuous-casting steel plants: a specialized set of algorithms to plan and control production, using advanced control systems engineering techniques, improves management of resources shared by different workflows, reducing production times. The group is looking for industrial partners for further testing and industrializing the solution within research, technical or services agreement.

Creation Date	26 January 2016
Last Update	15 February 2016
Expiration Date	15 February 2017
Reference	TOIT20160126007

Details

Description

The main problems related to control and optimization in automated industrial processes concern the management of operation sequences and of workflows and the synchronization of equipment for the handling of materials. Process optimization is particularly relevant in continuous-casting steel plants, where the management of overall production times depends significantly on the correct use of equipment to handle materials (ladles, baskets, overhead cranes), which equipment may have restricted availability (due to maintenance or refurbishment) or mobility (due to reciprocal interference) leading to complex management issues.

An Italian university research group utilized in-depth specialized know-how to develop a novel series of algorithms to plan and control production, using advanced control systems engineering techniques for resource management. The proposed solution is able to model, using dedicated theoretical tools, the sequencing and scheduling of automated productive processes.

The application, currently under development, for continuous-casting steel plants intervenes in a combined manner on the control of processing times, to prevent premature solidification, and on the optimization of transport and handling flows of raw and semi-finished materials.

The university is currently looking for industrial partners for further testing and validating the proposed solution. Potential collaboration include License and Services agreement as well as Research and Technical Cooperation agreement.

Advantages and Innovations

The solution has a significant component of specialized know-how combined with a high level of adaptability and customization of the production planning and control techniques used.

The concept can be integrated into automating and control systems already in place: its application requires neither the development of dedicated instruments nor any structural

modifications to existing facilities.

Reference market for the proposed solution is the manufacturing of automation and control systems, a constantly growing market segment and a key element for the efficient and profitable management of industrial plants.

End markets for the technology are steel plants, which see process automation as one of the driving forces behind technological development, both in terms of the integrated management of the equipment and machinery involved, and in terms of the control of complex transformation processes.

Stage of Development

Concept stage

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The research team is looking for industrial partners for further testing and validating the proposed solution.

Potentially interested partners in the development and integration of the technology include:

- manufacturers and integrators of industrial automation and production control systems
- engineering companies and manufacturers of 'turnkey' industrial plants
- manufacturers of steel and metal plants.

Various cooperation options available based on partners' specialization and market interest, including License and Services agreement, Research and Technical Cooperation agreement.

Type of Partnership Considered

Services agreement

License agreement

Technical cooperation agreement

Research cooperation agreement

Technology Offer

Smart thermostat technology

Summary

A research group from an Italian university developed an advanced smart chronothermostat and is looking for technical and commercial partners for testing, engineering and industrialization. The technology is based on predictive models which enable the device to predict how the temperature will evolve and to automatically choose the most efficient way to achieve the target temperature/time. Cooperation possibilities include license agreement, research and technical cooperation agreement.

Creation Date	03 March 2016
Last Update	04 March 2016
Expiration Date	04 March 2017
Reference	TOIT20160126009

Details

Description

A computer science research team at an Italian university developed a novel solution for smart chronothermostat technology. The proposed solution is based on thermodynamic models, predictive algorithms and sensors that enable predicting how the temperature will evolve, thus reaching the desired thermal level at the time set by the user, taking into account parameters such as the building's thermophysical characteristics, outside temperature, and the efficiency of the cooling or heating system. The efficiency of the technology improves energy savings eliminating unnecessary activation of the heating or air conditioning.

The technology is of potential interest for all manufacturers of traditional thermostats, who might be interested in entering the smart thermostat segment (an inescapable choice in the short- to middle-term in order to remain competitive on the market) and for companies operating in the Heating, Ventilating and Air Conditioning (HVAC) market, interested in improving their product's functionality and performance.

Other potential partners include public bodies and large companies, for whom ad hoc projects for further development of the technology can be activated.

The target "final clients" are private users, typically owners of homes and apartments equipped with independent heating, installers and system integrators who provide 'turnkey' home automation systems, and construction companies.

A first version of the algorithms has been developed and underwent simulated testing.

Prototypes of the graphic interface for the control panel and of the graphics for smartphone apps are available. The research team would consider license and research or technical cooperation agreements for industrial validation of the technology, testing and engineering of a commercial solution.

Advantages and Innovations

The main advantages resulting from the proposed technology are:

- automation of the decision-making process for setting switch-on time of heating and air conditioning systems

- dynamic adaptation and optimization of switch-on/switch-off cycles
- climate control systems are maintained inactive for as long as possible when buildings are unoccupied
- regulation of the operating temperature of the radiators by regulating the power of the flame and measuring the temperature of the flow and return connections on the boiler, thus optimizing energy efficiency.
- replacement of traditional thermostats without the need for any additional construction activity.

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

The technology is patented on an international level.

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The research group is looking for an industrial partner interested in testing and co-developing the technology and bringing it to market.

Cooperation activities may include industrial validation, further testing and engineering of the solution and industrialization activities. Various possible form of cooperation can be discussed based on the partner's specialization and interest: license agreement, research and technical cooperation agreement.

Type of Partnership Considered

- License agreement
- Technical cooperation agreement
- Research cooperation agreement

Technology Offer

Novel artificial intelligence solution for automatic written text content analysis

Summary

An Italian research group has developed an innovative solution for automatically analysing a written text and generating a short list of keywords summarizing its contents and main concepts. The technology stands out from currently available systems thanks to greater automation, improved accuracy and efficacy in extracting relevant keyphrases. The team is looking for technical cooperation, services agreement, commercial agreement with technical assistance.

Creation Date	26 January 2016
Last Update	11 February 2016
Expiration Date	11 February 2017
Reference	TOIT20160126008

Details

Description

The Artificial Intelligence Laboratory of an Italian University has developed a novel set of algorithms for automatic text content identification and is currently looking for industrial partners for further technical development, services agreements and commercial agreements with technical assistance.

The reference market segment comprises software for content management, automatic text analysis, data ranking and extraction applications. Over the last few years, technological developments in this field have led to market enlargement: demand is no longer limited to major corporations and web players, but also includes smaller companies and specialized operators. Strong market interest for Big Data mining has provided additional impulse. At the global level, sector analyses estimate that the text analysis software market was worth about USD 1.5 billion in 2014, with an estimated annual growth rate of over 10% in the next five years.

The proposed technology is of interest to manufacturers of software and applications for the management, classification and ranking of contents and for the management of archives and text documents; providers of digitalization services and management of non-structured contents and suppliers of technologies for the media and publishing sectors.

Potential users of the new application, which can be integrated with other currently available software solutions, include ICT companies, communications and media companies, web marketing operators, companies that must handle large amounts of non-structured texts, and knowledge workers (researchers, analysts, etc.).

Advantages and Innovations

The technology adopts a knowledge-based artificial intelligence approach which stands out from currently available systems thanks to its greater automation, improved accuracy in text analysis and better efficacy in extracting the relevant keyphrases. The technology carries out a multi-level semantic analysis and is able to produce accurate keyphrases using an analytical process

akin to the one used by a human operator. Unlike other current systems, the algorithm is not based on frequency analysis but on an innovative analytical procedure combining different sources: linguistic analysis, statistical analysis, text structure, meta-data analysis and web 2.0 sources.

Stage of Development

Prototype available for demonstration

IPR Status

Secret Know-how

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Open for EOI : **Yes**

Client

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The research team is looking for industrial partners for further technical co-development of the technology and commercial agreement. Potentially interested partners are software houses, service providers for digitalization services, archive and document management, technology providers for media and publishing sectors.

Type of Partnership Considered

Services agreement
Commercial agreement with technical assistance
Technical cooperation agreement

Technology Offer

Method for improving the performance of wireless communication systems by combining signals that arrive to a diversity receiver

Summary

The digital telecommunication department of a Greek university has developed a method for improving the performance of wireless communication systems by combining signals that arrive to a diversity receiver. The university holds a European patent and is looking for companies in the telecommunication sector to license the patent and apply the technology.

Creation Date	10 February 2016
Last Update	18 February 2016
Expiration Date	18 February 2017
Reference	TOGR20160210001

Details

Description

It is known that multichannel receivers followed by certain diversity combining techniques can significantly improve the performance of wireless communication systems. To combine signals from two different antennas, a maximal ratio combiner (MRC) is used, in order to maximize the signal to noise ratio (SNR). Nevertheless, the optimum performance of MRC is achieved at the expense of the high hardware complexity. To overcome this drawback, various sub-optimum diversity receivers with lower complexity have been proposed. The most important among them is the equal-gain combiner (EGC), which adds all the received signals at each branch. The EGC receiver has a major disadvantage however when operating over wireless channels with unequal gains at each path, e.g. in multipath channels. Under such conditions, the EGC results in a so-called "combining loss", meaning that combining more signals does not necessarily enhance performance, especially for high bit error rates (BERs). The reason is that weak branches contribute more to increasing noise.

The present invention aims at minimizing the combining loss of EGC receivers and minimizing the bit error rate (BER). The digital communication department of the Greek university proposes a method for combining signals received by a diversity receiver comprising of at least two branches, with the signals transmitting symbols through a multi-paths channel. It comprises of combining the signals after their processing in individual branches and demodulation and detection of the transmitted symbols. Such a method does not require the continuous estimation of the instantaneous channel gains at each branch, which is thus avoided and thus reduces the need for expensive hardware. It nevertheless allows good combining results, significantly better than EGC receivers, even when operating over wireless channels with unequal gains at each path, and even more so than with five branches.

The received signals at each diversity branch are not equally weighted as in conventional EGC receivers. According to the proposed methodology, the received signals from each branch are

co-phased and weighted by specific coefficients.

The diversity received proposed in this invention, is specially designed. It comprises at least two branches for receiving signals, where the signals transmit symbols through a multipath channel. It also comprises a combining device for the signals after their processing in individual branches and a demodulation device for the demodulation and detection of the transmitted symbols. The university holds a European patent for this technology and is interested in licensing the patent to a company dealing with wireless devices and receivers for a variety of applications.

Advantages and Innovations

The diversity receiver used in this invention is specially designed so as to be simpler and cheaper than the maximal ratio combiners (MRCs) which are conventionally used, since it avoids the expense of the high hardware complexity and gives significantly better results than an equal-gain combiner (EGC) receiver. In particular it minimizes the combining loss.

Furthermore, the synchronization device is comprised of components which estimate the time delay induced by the channel for each received signal, related to the transmission time of the transmission signal, and counters the possible delay accordingly for each received signal. Thus, it allows a better quality of synchronization.

Compared to conventional EGC receivers, the received signals at each diversity branch are not equally weighted.

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

European patent

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English
Greek

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

Type: SME

Expertise: manufacturing of wireless devices and receivers for a variety of applications.

Activities to be performed: license the patent and adopt the technology for wireless devices and receivers.

Type and Size of Partner Sought

SME 11-50, SME <10,>500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement

Technology Request

Eastern Europe partners sought for manufacturing capacities

Summary

The German mechanical engineering SME with focus on the development of robotic technologies for special purpose manufacturing applications is looking for partners in Eastern Europe with subcontracting capacities in the framework of a manufacturing agreement. The partner should have know-how in welding technologies and electrics, ideally expertise in robotics in order to takeover pre-assemblies or sub-projects.

Creation Date	04 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TRDE20151221001

Details

Description

The expanding German mechanical engineering SME concentrates on the customized design, development and manufacturing of robotic technologies for various sectors. These include robotic feeding systems, special machinery manufacturing and laboratory automation technologies.

The main application fields are sorting, unloading and placement, as well packaging machines. The robots are implemented into flexible robotic cells, which are cubicles of side lengths varying between 2,0 m and 3,0 m. The cubicles consist of a welded frame and transparent Plexiglas windows and doors.

The specific sub-projects are the manufacturing of the welded frame including the assembly of the complex control cabinets, based on existing 3D drawings, wiring diagrams and parts lists. Another sub-project could be the assembly of the robot and peripheral devices with the corresponding electric wiring.

The company is seeking an industrial partner out of the special machinery manufacturing sector with know-how in welding production for the frames, painting the metal frames and parts and electric know-how for the control cabinets, ideally with expertise in robotic technologies. The partner should be able to offer subcontracting capacities for the pre-assembly of machinery parts, (e.g. the electric wiring) or the takeover of specific sub-projects in the framework of a manufacturing agreement. A long-term partnership is sought. The expected numbers range approximately from 10 to 15 per year.

The partner should already be active on markets of Eastern Europe in order to widen distribution activities there. In return, the partner would benefit of the existing customer base in Germany and Western European countries.

Because of the high success, the company is currently in a strategic realigning process, which also includes the construction of additional manufacturing space in Germany. The final cooperation form depends on the core competencies, capacities and interests of potential

partners.

Application examples are listed for the implementation in robotic feeding systems, special machinery manufacturing and laboratory automation technologies:

- Fully automated unpacking system
- Feeding up to 500 folding boxes per minute
- Feeding product information and outserts
- Modular system for various packaging lines
- Depalettizing, feeding and handling for cartons
- Disposal management for cartons and paper layers

Technical Specification or Expertise Sought

The industrial partner should already be active in the manufacturing sector. Important is the existing know-how in welding production for the frames and electric know-how for the control cabinets, ideally with expertise in robotic and automation technologies. The partner should be able to offer subcontracting capacities for the pre-assembly of machinery parts, (e.g. the electric wiring) or the takeover of specific sub-projects in the framework of a manufacturing agreement. A long-term partnership is sought. The expected numbers range approximately from 10-15 per year.

Stage of Development

Already on the market

IPR Status

Other

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
German
Spanish

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

Type of Partner: Industrial Partner

Activity of Partner: Special machinery manufacturing, welding and electric know-how; ideally also in robotics and automation

Role of Partner: takeover of sub-projects (e.g. manufacturing of frame and control cabinet) pre-assembly of machinery parts

Type and Size of Partner Sought

SME 11-50, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Manufacturing agreement

Technology Request

Looking for acoustic, underwater and micro seismic noise prediction company

Summary

A Greek SME is working on a simulation tool for acoustic, underwater and micro seismic noise prediction. The company is looking for an SME with similar technical expertise to provide information and experimental results in order to compare them with the simulation results. The Greek company is looking for technical cooperation agreement.

Creation Date	22 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TRGR20160222001

Details

Description

A Greek SME, dealing with advanced simulations, is working in a project aiming to develop a demanding simulation software tool. The tool is based on accelerated Boundary Element Method (BEM). This method is well known as the ideal one for providing accurate and reliable solutions for solving multi-cracking fracture mechanics problems as well as large-scale problems dealing with infinite/semi-infinite domains, such as outdoor & underwater acoustics (e.g. infrasound, noise pollution), soil mechanics (e.g. earthquake waves, foundations, vibration isolation), radiation and scattering (e.g. radar, antennas), etc.

The software tool of the Greek company applies in two major modules, Electromagnetics and Fluid Structure Interaction. For the later module, the Greek company would like to find an SME which is working in the field of acoustic, underwater and micro seismic noise prediction. For completing the simulation tool the Greek company needs the SME abroad to provide all the necessary technical information and experimental results in order to compare them with the results given by the simulation tool. In return, when the project will be completed, the SME sought will be given for free the simulation software. The software will provide high accuracy computational results. The Greek company is looking for technical cooperation agreement.

Technical Specification or Expertise Sought

The Greek company is looking for an SME abroad with expertise in acoustic, underwater and micro seismic noise prediction. The SME is requested to provide technical information and experimental results of projects of the mentioned field.

Stage of Development

Concept stage

IPR Status

Secret Know-how

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Greek

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

The Greek company is looking for an SME abroad with expertise in acoustic, underwater and micro seismic noise prediction. The SME will provide technical information and experimental results to the Greek company. For this reason, the required partner should have previous projects in the field with sufficient data. The partner will receive the completed software tool for free. The Greek company is looking for technical cooperation agreement.

Type and Size of Partner Sought

SME 11-50,SME <10,SME 51-250

Type of Partnership Considered

Technical cooperation agreement

Technology Request

Looking for particle sizing nanotechnology company

Summary

A Greek SME is working on a simulation tool for particle sizing regarding nanomaterials. The company is looking for an SME with similar expertise to provide information and experimental results in order to compare them with the simulation results. The Greek company is looking for technical cooperation agreement.

Creation Date	22 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TRGR20160222002

Details

Description

A Greek SME, dealing with advanced simulations, is working in a project aiming to develop a demanding simulation software tool. The tool is based on accelerated Boundary Element Method (BEM). This method is well known as the ideal one for providing accurate and reliable solutions for solving multi-cracking fracture mechanics problems. The software tool will deal with nano-particles and nano-materials characterization.

The Greek company would like to find an SME from nanotechnology sector which is working in the field of particle sizing. For completing the simulation tool the Greek company needs the SME abroad to provide all the necessary technical information and experimental results in order to compare them with the results given by the simulation tool. In return, when the project will be completed, the SME sought will be given for free the simulation software. The software will provide high accuracy computational results regarding the materials characterization. The Greek company is looking for technical cooperation agreement.

Technical Specification or Expertise Sought

The Greek company is looking for an SME abroad with expertise and results regarding particle sizing. The SME is requested to provide technical information and experimental results in the mentioned field.

Stage of Development

Concept stage

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
Greek

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

The Greek company is looking for a nanotechnology SME abroad with expertise particle sizing. The SME will provide technical information and experimental results to the Greek company. For this reason, the required partner should have previous projects in the field with sufficient data. The partner will receive the completed software tool for free. The Greek company is looking for technical cooperation agreement.

Type and Size of Partner Sought

SME 11-50,SME <10,SME 51-250

Type of Partnership Considered

Technical cooperation agreement

Technology Request

Looking for a provider able to produce resistive lines and films on electronic circuits

Summary

A private company from Spain that develops electronic instruments is looking for a provider able to produce resistive lines and resistive films to be used in electronic circuits. Companies and organizations for a manufacturing agreement or a technical cooperation agreement are sought.

Creation Date	12 January 2016
Last Update	29 February 2016
Expiration Date	17 February 2017
Reference	TRES20160112001

Details

Description

A Spanish SME is looking for an organisation able to produce resistive lines and resistive films to be used in electronic circuits.

The resistive lines should have a resistance of around 350 Ohm/sq and a permitivity lower than 8 (the lower the better). The resistive film should have a resistance of around 12 Ohm/sq and a permitivity of at least 10 (the higher the better).

It should have the technical capabilities to deposit the right materials on a substrate, meeting a defined width and thickness with great accuracy.

Mostly resistive lines are made of carbon ink and resistive films are made of tantalum nitride but any alternative material or technology that meets and/or improves the requirements will be considered.

This organization should have the technical capabilities to deposit the right materials meeting a defined width and thickness with great accuracy. The substrate needed is not decided yet but we can see 2 main options: FR4 or glass.

A manufacturing agreement or a technical cooperation agreement which would contribute to the improvement of the final product is sought.

Technical Specification or Expertise Sought

The resistive lines should have a resistance of around 350 Ohm/sq and a permittivity lower than 8 (the lower the better). The resistive film should have a resistance of around 12 Ohm/sq and a permittivity of at least 10 (the higher the better).

Typical resistive lines are made with carbon ink and typical resistive films are made with tantalum nitride. However, any alternative material or technology meeting the requirements will be considered.

Stage of Development

Concept stage

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English
French
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

A manufacturing or a technical cooperation agreement with a provider and/or manufacturer of resistive lines and films is sought. The partner should be able to develop and manufacture the lines and films and contribute with its expertise to the improvement of the final product.

- Type of partner sought: Industry or research center, with the right means to produce the lines and films. There is no need for a big production capacity, series are short (10 to 100 units).

- Specific area of activity of the partner: PCB manufacturer, research organization

- Task to be performed by the partner sought: Advise on materials and technology, produce the resistive lines and films.

It is important to have the right technological means to be able to deposit the right materials on a substrate, meeting a defined width and thickness with great accuracy.

Type of Partnership Considered

Manufacturing agreement

Technical cooperation agreement

Technology Request

Partner sought to develop a “Free Viewpoint Video” capture system for virtual and mixed reality applications

Summary

An Austrian company active in the area of artistic entertainment and marketing is looking for partners with technical, mathematical and programming skills to develop a “free viewpoint video” capture system with a scalable number of low cost RGB and/or RGB-D sensors. This product can be used in a variety of cases for Virtual and Mixed Reality applications. All types of partners and cooperations without geographical restrictions will be considered, especially technical and research cooperations.

Creation Date	23 February 2016
Last Update	24 February 2016
Expiration Date	24 February 2017
Reference	TRAT20160218001

Details

Description

For the first time since Virtual Reality (VR) came up in the mid 90ies, high quality and affordable VR and Mixed Reality (MR) experiences seem within the reach to a broad range of creatives. The big players in the VR market concentrate mostly on hardware, lacking the content to be displayed on the upcoming generation of display devices. A high-quality, cost-effective, scalable system is not available at the moment, hence the chances in the VR/MR application market are extremely versatile for almost all areas of creative production.

The small Austrian company has been founded in 2009 and is an expert in the artistic entertainment and performance art.

The company would like to develop a low-budget software tool for „mixed reality“ experiences. The tool can be used for product visualization in the industry. This tool is also interesting for the tourism industry as well as the culture environment. The tool enables to capture and process an optimized „free viewpoint video“ with a scalable number of low cost RGB-D sensors, which then can be used in a variety of cases for Virtual Reality and Mixed Reality applications. The innovation is the direct capture of real human performers in 3D, which enables the viewing angle from which a video is looked at to be changed during the playback freely – without the need of motion capture of 3D-animateurs.

The Austrian company is looking for partners. The ideal partner should be able to provide the technical, mathematical and programming skills to develop such software.

The Austrian company is seeking a partner who is able to offer technologies for expertise in the area of virtual and augmented reality, free viewpoint and 3D Video, 3D computer vision as well as real-time 3D. There are no geographical restrictions in terms of the partner sought. The

Austrian company is looking for technical and research cooperation agreements but is also flexible in terms of the types of cooperation considered.

Technical Specification or Expertise Sought

The technical challenge is the development of a set of algorithms that calibrate a scalable number of commodity RGB-D cameras which capture an object from different perspectives and correlate, correct and reconstruct the capture point clouds to a qualitative whole 3D object.

The Austrian company is looking for partners who offer excellent expertise in the following fields

- free-viewpoint and 3D video
- marker-less optical motion capture
- 3D image analysis and synthesis
- image-based rendering
- virtual and augmented Reality
- time-of-flight imaging
- dynamic scene reconstruction
- 3D computer vision
- physically-based rendering
- machine learning for vision / graphics

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

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Open for EOI : **Yes**

Client

Languages Spoken

English
German

Client Country

Austria

Partner Sought

Type and Role of Partner Sought

Partners of any size and type from all regions are sought, who can offer expertise and solutions in the area of virtual and mixed reality. The focus is on finding an optimum match in terms of the technology, so the company is flexible on many other aspects including the type of cooperation considered, especially technical and research cooperation agreements.

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10,>500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Technology Request

UK entrepreneur seeking virtual reality software specialist for development of new augmented reality demonstrator for FutureFest 2016

Summary

A UK entrepreneur has been invited to develop an Augmented Reality demonstration for FutureFest 2016 in London by the event organisers. The entrepreneur has developed a novel concept for an Augmented Reality product which spans multiple sectors and now requires a software development partner with virtual reality expertise who would be willing to capitalise on this opportunity in the form of a technical cooperation agreement. Investment partners will also be considered for financial agreements.

Creation Date	23 February 2016
Last Update	03 March 2016
Expiration Date	03 March 2017
Reference	TRUK20160223001

Details

Description

Augmented Reality (AR) technology has yet to reach its full potential partly due to technology limitations. The next generation of mobile devices will have depth sensing camera technology built into them which finally opens up the AR market to huge opportunities for commercial exploitation over and above the emergence of wearable AR devices (Hololens, Magic Leap etc).

This UK entrepreneur has developed a concept that makes use of AR technology for a specific consumer technology area not yet disclosed. The organisers of FutureFest 2016 have seen the concept and invited a demonstration to be developed for the show. The show is organised by Nesta, a UK Innovation Foundation and aims to showcase emerging technologies in an immersive innovation environment.

The technology now requires either an angel investor or a software development partner to develop the concept into an early stage demonstrator for an equity share of the future business. Partnerships will hence take the form of a financial agreement or a technical cooperation agreement.

The ideal software development partner will have expertise in Virtual Reality (VR) and creating content with images across multiple platforms. The partner should have access to the relevant Software Development Kits (SDKs) for developing VR and AR software.

Technical Specification or Expertise Sought

- Software developer with expertise in the VR / AR fields
- A proven product developer with market success
- Relevant SDKs for developing VR / AR products
- Familiar with working on multiple platforms
- Flexibility in terms of working for equity share

Stage of Development

Concept stage

Network Contact

Issuing Partner

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Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

Type of partner sought - Entrepreneurs, SMEs or larger companies

Specific area of activity of the partner - Angel investment, software development, AR, VR,

Task to be performed by the partner sought - Evaluate the technology under non-disclosure

agreement.

Expressions of interest from software developers should preferably include details about their capabilities in the VR and AR fields along with demonstration of their capabilities in the form of case studies or online product demonstrators.

Type of Partnership Considered

Financial agreement

Technical cooperation agreement

Technology Request

Scottish Cheese producer seeking wrapping technology for artisan cheeses.

Summary

A Scottish company which produces a range of artisan hard cheeses is looking for wrapping technology to enhance its packaging process. They require a wrapping machine with not too big a footprint, which will speed up their existing process, ensure a shelf life of at least 10 weeks for the cheese wedges and retain the artisan appearance of the packaged product. They are seeking industrial partners for a technical co-operation agreement or a commercial agreement with technical assistance.

Creation Date	19 February 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TRUK20160219001

Details

Description

A well established Scottish company which produces a range of cheeses is seeking technology to improve the efficiency of their packaging process.

The company produces a range of hard cheeses. These are mechanically cut into wedges and at present, these are placed in bags which are then vacuum packed. The packaging process is causing a bottleneck in the process and the company is seeking new wrapping technology which will enhance the process while not losing the artisan appearance of the product.

They are looking for industry partners who may be able to provide or develop a solution through a commercial agreement with technical cooperation or a technical co-operation.

Technical Specification or Expertise Sought

Because of limited space, they require a machine with not too great a footprint.

They need to speed up the process when compared to the present wrapping method of vacuum packing in bag.

They want the final product to retain the look of an artisan product. At present they are using a parchment effect wrapping.

The current shelf life of the product is 10 weeks and they would need to ensure that this is either maintained or extended by the new wrapping method.

Stage of Development

Already on the market

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Industry
- Specific area of activity of the partner: production/supply of specialist wrapping machinery for use in the food industry.
- Task to be performed by the partner sought: collaborate with the company to provide a packaging solution to enhance their product wrapping process. This may involve a technology agreement or a commercial agreement with technical assistance.

Type of Partnership Considered

Technical cooperation agreement

Technology Request

Seeking software solutions for data identity reconciliation and anonymization

Summary

A Singapore-based ICT company, ISO 9001, 27001 and CMMI Level 3 certified, with offices in global markets is seeking a software framework or solution to reconcile identities of individuals represented as records from different databases that belong to different organisations. The company is keen to explore the following types of partnerships: - Licensing agreement - Joint venture agreement - Research co-operation agreement - Technical services agreement

Creation Date	17 February 2016
Last Update	26 February 2016
Expiration Date	26 February 2017
Reference	TRSG20160215001

Details

Description

Data aggregation from databases of different organisations is a challenge, especially without the existence of common keys or identifiers.

The Singapore-based company that offers ICT solutions to its clients is seeking a software framework or solution that is able to reconcile identities of individuals represented as records from different databases that belong to different organisations.

This reconciliation should also be possible when there is no unique identification number or key between the different databases, and requires an algorithm to be able to perform the matching with whatever data is available, to the best guess available.

The identity of the individuals of the records should also be kept anonymous, for example with encryption.

The company is keen to explore the possible modes of partnership:

- Licensing agreement
- Joint venture agreement
- Research co-operation agreement
- Technical services agreement

Types of partners sought include:

- >500
- >500 MNE
- 251-500
- Inventor

- R&D Institution
- SME <10
- SME 11-50
- SME 51-250
- University

Technical Specification or Expertise Sought

The software framework or solution should have the capabilities to automatically or semi-automatically reconcile identities of individuals from different databases from different organisations.

Records from the different databases do not have a unique identifier that points to the specific individuals, and reconciliation of the data across databases is to be inferred from existing database fields.

The identity of the individuals of the records should also be kept anonymous, for example with encryption, and subsequent decryption to re-identify and de-anonymize the identity of the individual.

Comments Regarding Stage of Development

Preferable market-ready, if not a working prototype could be explored.

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Singapore

Partner Sought

Type and Role of Partner Sought

Types of partners sought include:

- >500
- >500 MNE
- 251-500
- Inventor
- R&D Institution
- SME <10
- SME 11-50
- SME 51-250
- University

Types of partnership sought include:

- Licensing agreement
- Joint venture agreement
- Research co-operation agreement
- Technical services agreement

Type and Size of Partner Sought

SME 11-50, University, Inventor, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Technical cooperation agreement
Joint venture agreement
Research cooperation agreement

Technology Request

Seeking next-generation data-centre energy management solutions

Summary

A large public-listed Singapore corporation providing telecommunications services is seeking new and effective energy management solutions for data centre from SME/startups. The types of partners that the organisation is seeking include: - SME <10 - SME 11-50 - SME 51-250 Types of partnerships sought include: - Joint venture agreement - License agreement - Research cooperation agreement - Technical cooperation agreement

Creation Date	18 February 2016
Last Update	22 February 2016
Expiration Date	22 February 2017
Reference	TRSG20160218001

Details

Description

Data centres are massive, energy-intensive infrastructures. With the explosion of the Internet-of-Things (IoT), digital content, big data, e-commerce and internet traffic, the energy footprint of data centres is fast becoming a global key concern that must be addressed.

The Singapore-based corporation is looking to explore possible next-generation, disruptive energy-efficient solutions that can improve the energy management of its data centres.

Selected SME/startups will receive up to S\$75K to test and validate their solutions with them. Successful solutions may lead to commercialization with the corporation, providing SME/startups access to their customer base, which includes both enterprises, consumers and customers across Asia, Australia and Africa.

Types of partners sought include:

- SME <10
- SME 11-50
- SME 51-250

Types of partnerships sought include:

- Joint venture agreement
- License agreement
- Research cooperation agreement
- Technical cooperation agreement

Technical Specification or Expertise Sought

The offered solution or technology can span across efficient cooling, intelligent rack and space utilisation, Data Centre Infrastructure Management (DCIM) or other unique solutions that leverage Internet of Things (IoT), data analytics and machine learning, just to name a few.

Most importantly, these energy management solutions must be adaptable for existing operational data centres and deliver significant energy savings compared to those that are currently available in the market.

Network Contact

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Open for EOI : **Yes**

Client

Languages Spoken

English

Client Country

Singapore

Partner Sought

Type and Role of Partner Sought

Types of partners sought include:

- SME <10
- SME 11-50
- SME 51-250

Types of partnerships sought include:

- Joint venture agreement
- License agreement
- Research cooperation agreement
- Technical cooperation agreement

Type and Size of Partner Sought

SME 11-50, SME <10, SME 51-250

Type of Partnership Considered

License agreement
Technical cooperation agreement
Joint venture agreement
Research cooperation agreement

Technology Request

Co-operation on personal diagnostic analyses for human and animal medicine

Summary

A Slovenian biotech SME is working in the field of personal health and well-being related laboratory analysis. The company wishes to extend product portfolio and is looking for close-to-market technologically improved laboratory analyses (genetic, immunological, stool, hormone tests, and home test kits). Partners (laboratories, clinics, institutions) who are interested in technical or research co-operation or commercial agreement are sought.

Creation Date	16 February 2016
Last Update	17 February 2016
Expiration Date	17 February 2017
Reference	TRSI20160215001

Details

Description

Personal diagnostics provides insight into individual's body functioning and provide it with information about its hereditary traits (genetic analyses), physical conditions, or health conditions (diseases, metabolism, nutrition). The foundation of personalized medicine is in professional analyses of various samples (saliva, stool, blood, urine, hair) - Personal Diagnostics solutions provide more effective ways to assist in the diagnosis, monitoring and management of disease, nutrition and wellbeing. Results of the testing should be presented in a clear and understandable manner. They include a complete description of the results and recommendations on prevention and lifestyle depending on the results and the field of examination. Areas of company's expertise are relatively broad. Company offers different genetic tests in the field of health, (identifying genetic predispositions for various diseases, the response of the organism to certain drugs, etc.), nutrition (identifying the genetic influence on body weight, characteristics of metabolism, food intolerances), sport (physical characteristics of the athletes) and also veterinary medicine (food intolerance tests).

The company is looking for technical and research cooperation in order to extend product portfolio. The products and services should offer the right balance of science, technology and practicality to provide healthcare professionals and individuals with the vital information they need to deliver better, more personalized healthcare/nutrition/training. The company is interested in the transfer of innovative and technologically advanced services with good clinical and practical value to the final consumer. Company is interested in innovative health related laboratory analyses which are in the final stage of development and ready to be sold on the market. Laboratory analysis must meet the required quality standards and the laboratories that conduct them should be certified for such a purpose. Service should have clinical validity and good user value, with understandable interpretation of laboratory results.

Company is looking for partners, dealing with genetic analyses, which can provide technologically advanced and innovative services with good clinical and practical value.

Partners that are willing to offer their new and innovative product to the market and are interested in research co-operation agreement are looked for. Technical cooperation agreement or commercial agreement with technical assistance is desired, where the potential partner already has the genetic analysis capabilities that it offers to the market.

Technical Specification or Expertise Sought

Company is interested in new innovative analyses for health and wellbeing related proposes. Although human wellness analyses are preferable, the company is also interested in analyses for pets, animals, environment, etc. Analyses/services must be in final development stage or already developed and ready to be sold on market. Quality of services must be provable. Analyses should be taken in certified laboratories. Home health kits are also subject of discussion. It must be ensured for adequate interpretation of the laboratory results. Service should have clinical validity and good user value.

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Client

Languages Spoken

English

Client Country

Slovenia

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: laboratories, research and development organizations and institutions, bio-molecular analysis facilities, specialists on the field of human genetics
- Specific area of activity of the partner: provider of laboratory analysis (genetic, immunological, biochemical...), professionals in the field of biotechnology, biology, human genetics, human medicine and veterinary medicine.
- Task to be performed of the partner sought: Company is looking for partners, dealing with genetic analyses, which can provide technologically advanced and innovative services with good clinical and practical value.

Partners that are willing to offer their new and innovative product to the market and are interested in research co-operation agreement. Technical cooperation agreement or commercial agreement with technical assistance is desired, where the potential partner already has the genetic analysis capabilities that it offers to the market.

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement
Research cooperation agreement

Technology Request

Cloud server technologies for multiplayer video games.

Summary

Spanish company in the field of software publishing and videogame development is requesting commercial agreement with technical assistance with cloud servers technology companies, in order to support their clouding gaming platform. The aim is to achieve high responsiveness and video quality with low network traffic, enhancing its providers portfolio of cloud server technologies.

Creation Date	22 January 2016
Last Update	29 February 2016
Expiration Date	28 February 2017
Reference	TRES20160122001

Details

Description

Spanish SME that develops and publishes games for mobile operators requests cloud computing server technologies to support their current projects, which account for millions of multiplayer videogame petitions worldwide. Servers could be located in various countries, as the SME operates in 48 countries.

Gamers concurrently demand for high responsiveness and high video quality, but do not want to pay too much. Therefore, service providers have to not only design the systems to meet the gamers' needs but also take error resiliency, scalability, and resource allocation into considerations. This renders the design and implementation of cloud gaming systems extremely challenging. Indeed, while real-time video streaming seems to be a mature technology at first glance, cloud gaming systems have to execute games, handle user inputs, and perform rendering, capturing, encoding, packetizing, transmitting, decoding, and displaying in real-time, and thus are much more difficult to optimize. This is what the company is planning to improve with optimal cloud server technologies. Also the SME have new ideas to improve cloud gaming experience for gamers and reduce capital expenditure (CAPEX) and operational expenditure (OPEX). For this reason it is envisaged a commercial agreement with technical assistance (support on the servers management and maintenance), helping also with the design and implementation of the cloud gaming system described few lines above.

Regarding the company background, it has developed over 300 projects, with more that 60,000 multimedia content including wallpapers, screensavers, ringtones, videos that can be offered within the portal of the carrier. The SME has offices in more than 48 countries worldwide.

Technical Specification or Expertise Sought

Sound cloud computing server infrastructure able to support millions of multiplayer videogame petitions, preferably distributed worldwide.

Stage of Development

Already on the market

Network Contact

Issuing Partner

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Client

Languages Spoken

English

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type: software partner with dedicated servers that would accept millions of video games petitions.

Role: provider of cloud server infrastructure for multiplayer gaming and associated maintenance, helping with the design and implementation of the system, following directions on error resiliency, scalability and resource allocation.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

Commercial agreement with technical assistance