



Boletín nº 158 de Oportunidades de Cooperación:

**Nanotecnologías, Tecnologías de Producción,
Construcción, Materiales, Transporte**

(Octubre 2017)

NANOTECNOLOGÍAS

Technology Requests

- A Ukrainian Research Center, located in Kiev looking for novel technologies of phase change material.

TECNOLOGÍAS DE PRODUCCIÓN

Technology Offers

- Italian company offers its innovative automation technology solution under a commercial agreement or manufacturing agreement.
- Tailor-made vibration damping technology saving costs and increasing quality in mechanical engineering and testing applications
- A Japanese trimming & deburring machine system manufacturer is seeking licensees in the EU for their technology

CONSTRUCCIÓN

Technology Offers

- Restoration technology for uneven settlement of structures/foundations
- Innovative LED light solutions and modules for customized applications - safety lighting, warning signs, marks, boundaries, advertising displays,...
- Technology for low cost manufacturing of singly and doubly curved composite and plastic panels without a mould.

Technology Requests

- Research, certification, and production demand for evacuation project in case of emergency for high-rise or remote buildings, and architectural...

MATERIALES

Technology Offers

- Volume production readiness for cyber skin
- Restoration technology for uneven settlement of structures/foundations
- Innovative footwear production technology based on three-dimensional bonding
- Chip-integrated optical sensor
- Tailor-made vibration damping technology saving costs and increasing quality in mechanical engineering and testing applications
- New catalyst for the synthesis of cycloheptatriene and derivatives

- Graphene sheets production method
- Enrichment of the iron-bearing materials through zinc removal in reductive roasting process. A Polish R&D institution is looking for commercialization...
- Technology for low cost manufacturing of singly and doubly curved composite and plastic panels without a mould.

Technology Requests

- Polymer biodegradation screening tests

TRANSPORTE

Technology Offers

- Patented new innovative torque coupling technology with applications in automotive, aerospace, industrial and marine sectors
- Positioning technology for mobile robots and autonomous vehicles to navigate in dynamic indoor and outdoor environments without requiring...
- Innovative LED light solutions and modules for customized applications - safety lighting, warning signs, marks, boundaries, advertising displays,...
- An intelligent speed bump solution for traffic calming
- Smart parking solution based on an IoT network



1. NANOTECNOLOGÍA

Technology Request

A Ukrainian Research Center, located in Kiev looking for novel technologies of phase change material.

Summary

A Ukrainian Research Center, located in Kiev focuses on the advanced thermal technology looking for novel technologies of phase change material (PCM). It's expected to receive good proposals or reply from potential partners. A license agreement, research or technical cooperation agreement but also commercial agreement with technical assistance is sought with a partner specialized in producing or scientific development PCM products and technologies.

Creation Date 14 September 2017
Last Update 26 September 2017
Expiration Date 26 September 2018
Reference TRUA20170914001

Details

Description

A Ukrainian Research Center, located in Kiev focuses on the advanced thermal technology looking for the next generation telecommunications network products around the world. It is looking for License agreement, research cooperation agreement and technical cooperation agreement. One of the important requirement is developing novel technologies about phase change material (PCM). It's expected to receive good proposals or reply from potential partners. Currently R&D Center is looking for phase change materials (PCMs) to apply them in their devices.

The phase change materials (PCMs) should have the following characteristics:

- Latent heat = 250 - 300 J / cm³
- Melting temperature range: From 40-45°C
- Melt Point: 43° C

R&D Center is looking for License agreement, Research cooperation agreement, Technical cooperation agreement as well as Commercial agency agreement with technical assistance.

Technical Specification or Expertise Sought

As PCM material can used salt hydrates, eutectic mixtures, paraffin's, aqueous salt, and others solid or liquid materials. Material should be compatible with laminating technology, micro encapsulation technology and other packing technologies.

The phase change material must not be flammable.

Specific requirements to PCMs are: Latent heat 250 - 300 J / cm³, Melting temperature range: From 40-45°C, Melt Point: 43 ° C, Thickness: 0.3 mm±10%

Technical requirements to PCMs: Thermal Conductivity: ≥0.15W/mK, Electrical Insulation: 1 x 10¹¹, Environmental: RoHS

Keywords

Technology

02002002	Coatings
04001001	Heat storage
04008003	Micro- and Nanotechnology related to energy

Market

06003008	Other alternative energy
08001007	Coatings and adhesives manufactures
08001009	Speciality/performance materials: producers and fabricators
08001021	Other speciality chemicals

NACE

J.61.9.0	Other telecommunications activities
M.71.2.0	Technical testing and analysis

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Ref: TRUA20170914001

R&D Institution

Year Established

0

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Russian

Client Country

Ukraine

Partner Sought

Type and Role of Partner Sought

The partner must be a specialist in PCM and related technology. A potential partner can be both a scientific or production organization. The partner must provide the products (PCM and related technology) for testing under Commercial agency agreement with technical assistance. Other types of cooperation are also considered.

Type and Size of Partner Sought

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

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement
Research cooperation agreement

Attachments



2.

***PRODUCCIÓN
INDUSTRIAL***

Technology Offer

Italian company offers its innovative automation technology solution under a commercial agreement or manufacturing agreement.

Summary

The company is an innovative Italian startup operating in the assembly automation industry developing a new generation of assembly systems that bring significant flexibility and efficiency advantages. The company is looking for partners under a commercial agreement or manufacturing agreement.

Creation Date	21 August 2017
Last Update	06 October 2017
Expiration Date	06 October 2018
Reference	TOIT20170725001

Details

Description

The company is 100% Italian and was funded by the passion and talent of a team of engineers with a strong expertise in industrial production and software development.

The company has a solid mix of competences in mechanics as well as in electronics and informatics: the core competence is mechatronics.

The company invented a radically new concept of automation solutions, applicable to the packaging industry and more in general to the assembly industry of small sized components. The solution is modular, flexible, entirely reprogrammable yet fast and environmentally efficient. It responds to a concrete market need stemming from stock keeping unit proliferation, shortened product life and increasing request for customisation that is diluting the economics of the packaging producers, who traditionally invest in single-usage assembly lines on the basis of the payback ratio of a given job request, that cease to be used when the job is completed. The company's automation solutions ensure that an investment in a line can be used to produce different items at the same time, and be reprogrammed for different usages.

The company offers its products and services under a commercial agreement with technical assistance or under a manufacturing agreement. Other types of agreements like technical cooperation agreement or joint venture can also be considered.

Advantages and Innovations

The company offers automation solutions that are the ultimate technological innovation for assembling. The company's open automation platform is extremely innovative and unique on the market, and comes with significant advantages:

- Modular system, controlled by a proprietary software that allows for automatic recognition of workstations and plug&play installation

- Easy and fast to reprogram, with no extra costs to re-adapt for production of different components
- Efficient and silent, thanks to the inhibition of pneumatic actuators interconnected via cloud and big data enabled

The flexible feeders with vision controls and robotic arms allow to manage loading stations with dynamism and to adapt to different sizes and shapes in a matter of a few minutes.

The company also supports customers by offering a customized big data analysis service, transforming data flows into simple management dashboards.

The assembly systems are compliant with Italian Industry 4.0 prerequisites, and are suitable to obtain certification necessary to obtain fiscal reductions and/or government funding (in Italy).

Stage of Development

Already on the market

Comments Regarding Stage of Development

Available for demonstration

Already on the market

IPR Status

Secret Know-how, Design Rights, Patent(s) applied for but not yet granted

Profile Origin

Other

Keywords

Technology

01001001	Automation, Robotics Control Systems
01003008	Data Processing / Data Interchange, Middleware
02	INDUSTRIAL MANUFACTURING, MATERIAL AND TRANSPORT
02002018	Microassembly, nanoassembly
02005	Packaging / Handling

Market

08002007	Other industrial automation
----------	-----------------------------

NACE

C.28.9.9	Manufacture of other special-purpose machinery n.e.c.
----------	---

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2016

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Experience Comments

CEE Standard

Languages Spoken

English
Spanish
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The type of partner sought are companies of the assembly industry operating in the following sectors:

- Cosmetic packaging
- Pharmacy packaging
- Caps and closures

- Multimaterial assembly
- Electrical components
- Home and personal care packaging

The partner should be a company producing different types of packaging benefitting from a fast and easy change in the production line.

The company is interesting in collaborating under commercial agreement with companies which distribute the machinery or under manufacturing agreement with subcontracting companies.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance

Attachments

Technology Offer

Tailor-made vibration damping technology saving costs and increasing quality in mechanical engineering and testing applications

Summary

An Austrian SME developed a novel composite material (steel structure filled with special concrete) with excellent vibration damping properties. It is adjustable to individual client needs. For many new machining centers it significantly improved machining accuracy, enhanced tool life (up to 20% decrease in tool consumption), increased processing speeds (e.g. 20% reduced grinding times) and lowered noise emission. Partners for technical and research cooperations are sought.

Creation Date	07 September 2017
Last Update	21 September 2017
Expiration Date	21 September 2018
Reference	TOAT20170907001

Details

Description

In mechanical engineering applications (such as machine tools) vibrations have a detrimental impact on quality of products and tool life. Conventional solutions to reduce vibrations such as grey cast components are quite expensive and not individually adaptable for optimized vibration damping and client needs.

The Austrian company developed a technology with excellent vibration damping characteristics to improve tool life, precision of mechanical operations, machine structure behaviour and sound emission levels significantly.

The system consists of an innovative composite material, comprising a welded steel structure with high structural stiffness filled with special concrete. In comparison to grey cast components the new technology saves costs, especially for small batches and prototypes of machine tools, clamping plates etc. It also allows the integration of additional functionalities and components, such as heating or cooling coils, conduits for energy supply, hydraulics, pneumatics, anchors for lifting and many more. Compared to other composite material technologies (steel structure filled with polymer concrete) the novel system again has significantly better vibration damping behaviour and heat stability and does not contain epoxy resins (has less environmental impact).

The special concrete can be adjusted to individual needs. Specific weight, damping characteristics, modulus of elasticity (E-modulus), compressive strength and other characteristics can be varied in a wide range to meet the particular client requirements. During engineering, the part's natural and resonance frequencies are determined and can be adjusted by design measures if they interfere with the overall structure or machine. Even possibly required vibration boundaries, such as vibration velocity and vibration amplitudes can be taken into account beforehand.

The following types of the system are available and can be adjusted according to specific client requirements:

- type 1: density up to 2,500 kg/m³; E-modulus up to 60,000 N/mm²;
- type 2: density up to 1,200 kg/m³; E-modulus up to 12,000 N/mm²;
- type 3: density 650 kg/m³; E-modulus approx. 5,000 N/mm²; especially suited for moving parts (slides, lathe slides, carriages etc.);
- type 4: density 220 kg/m³; E-modulus approx. 100 N/mm²; especially suited for moving parts (slides, travelling columns etc.);

Application areas:

- The technology is currently in use in machine beds for machine-tools and machining centers (examples are turning, milling, grinding, lathing machine tools of all sizes). It is further applicable in structure parts, base frames and the like.
- The system is also used in the testing industry, particularly in clamping plates, where it is engineered and designed for specific measurement tasks. Applications include testing of engines, transmissions, brakes, sound emissions etc.
- The innovative compound material together with expertise in engineering and simulation are especially advantageous for developing prototypes of new machines.

The SME is looking for:

- 1) technical cooperation partners: companies who want to optimize their new developments of machine tools, machining centers, industrial robots, industrial testing technology etc. by integrating the novel system for vibration damping.
- 2) research cooperation partners to enter into new R&D projects in the framework of funding programmes: R&D organisations with focus on thermal stability of machine tools and/or on the development/analysis of alternative filling compounds.

Advantages and Innovations

- 1) excellent vibration damping characteristics: for machining centers this results in improved machining accuracy, enhanced tool life, higher processing speeds and lower noise emission levels. For example, grinding times were reduced by 20% while maintaining the same grinding results. In another project it was possible to decrease the tool consumption by 20%.
- 2) high temperature stability and heat capacity protecting the machine structure from thermal influences better than common materials and resulting in higher process reliability
- 3) flexibility in design: particular customer requirements such as certain characteristic shapes, integrated conduits for energy, hydraulics etc. can be considered.
- 4) no expensive moulds needed; the filled steel structure (a stay-in-place formwork as such) makes it very cost efficient especially for small batches or even prototypes.
- 5) via modern simulation software certain requirements (such as maximum vibration velocities for testing plates) can be taken into account in the early design phase; best quality results are guaranteed.

Stage of Development

Already on the market

Comments Regarding Stage of Development

The system has proven its advantages in many different applications especially in Austria, Germany and Switzerland for more than 5 years and has been improved and adapted to suit even the most challenging applications.

IPR Status

Secret Know-how, Trade Marks

Comment Regarding IPR status

trade mark protected in EU

Profile Origin

Private (in-house) research

Keywords

Technology

02002009	Machine Tools
02002010	Machining (turning, drilling, moulding, planing, cutting)
02007005	Composite materials
05003001	Vibration and Acoustic engineering
09001002	Analyses / Test Facilities and Methods

Market

08002002	Industrial measurement and sensing equipment
08002004	Robotics
08003001	Machine tools, other metal working equipment (excl. numeric control)
08003007	Other industrial equipment and machinery

NACE

C.28.4.1	Manufacture of metal forming machinery
C.28.4.9	Manufacture of other machine tools

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME 50-249

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
German

Client Country

Austria

Partner Sought

Type and Role of Partner Sought

Specific area of activity of the Partner:

1) Developers and/or manufacturers of machine tools, machining centers, industrial robots, industrial testing technology with the claim to quality leadership for applications in automotive, aviation, shipbuilding, power generation industry and many more.

2) R&D institutions, universities with a research focus on:

- thermal stability of machine tools (thermal simulations etc.)
- development and analysis of alternative filling compounds (geopolymers etc.)

Task to be performed by the Partner:

1) technical cooperation partners: companies who want to optimize their new developments (machine tools, industrial testing technologies etc.) by integrating the novel system for vibration damping. The Austrian SME offers FEM (finite element method) analysis, design, engineering, fabrication and assembling of the system according to client requirements together with expertise and extensive experience in machine tool design and engineering in all areas of machine tools.

2) research cooperation partners: R&D organisations with the above mentioned research areas to enter into new R&D projects in the framework of funding programmes.

Type and Size of Partner Sought

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

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Attachments

clamping plate for industrial testing.PNG



machine base examples.PNG



Technology Offer

A Japanese trimming & deburring machine system manufacturer is seeking licensees in the EU for their technology

Summary

A Japanese trimming & deburring machine system manufacturer is offering in the EU and under a licensing agreement, its automated unmanned machines based on a world unique patented technology. A total license for local manufacturing, sales and after-sales service with non-exclusivity can be granted with royalty & down payment. The technology's main application is aimed towards various plastic materials used in many industrial sectors such as automotive and construction.

Creation Date	04 September 2017
Last Update	14 September 2017
Expiration Date	14 September 2018
Reference	TOJP20170904001

Details

Description

A Japanese trimming & deburring machine system manufacturer is looking for a manufacturing and sales licensee in the EU for their technology.

The company is a manufacturer of trimming & deburring machines with own in-house design established in 1981. To this date, they have sold and installed approximately 500 systems in Japan and overseas. In terms of the European market, they would like to find a partner in business licensing.

The company developed a fully automated unmanned system with articular robot for trimming and deburring plastic works in injection mold process. Widely applicable for ordinary resin impregnated material & thermo plastic, and even for extraordinary material such as glass fiber, gum, Continuous Fiber-Reinforced Thermoplastic Composites (CFRTP), nonwoven fabric and other.

The technology's main application is aimed towards various plastic materials, such as automotive interior parts, including door panels, instrument panels, duct & trunk boards and other materials (mainly used for Japanese cars). As well as cases and lids for laptops and housing units, such as washing stands & toilet lids.

They have EU patented in-house design technology & know-how:

- Ultrasonic cutter system for trimming, deburring & chamfering in combination with profiling technology.
- Articular robot application software.

A license grants certain patents and technical information, such as drawings and know-how together with non-exclusive sales rights in certain countries in the EU.

A total license for local manufacturing, sales and after-sales service with non-exclusivity can be granted with royalty & down payment.

Advantages and Innovations

Their technology presents below features:

- The complete unmanned system can cut labor cost and enhance finish cost dramatically, and 24 hour operation is possible synchronized with plastic injection cycle time. An articular robot replaces unloading machine in injection process, so that capital investment could be saved by e.g. 5 million yen (40.000 EUR) per system compared to average machines.

- Their unique technologies are the ultrasonic blade cutter system combined with patent granted profiling system, which can accept distortion of plastic work just after injection by ± 5 mm. This is only one patented technology of this kind in the world.

- This profiling technology ensures perfect deburring for plastic injection work so that low pressure injection mold method comes available and certain amount of capital investment can be saved. The cost of low pressure injection machine & die are far below (around half) when compared to normal high pressure systems.

- The partner can save R&D costs for unmanned systems and be protected by patents versus competitor's copying.

Stage of Development

Already on the market

IPR Status

Secret Know-how, Patents granted

Comment Regarding IPR status

Patent is granted in 11 countries: Germany, UK, France, Italy, Spain, Switzerland, Czech Republic, Slovakia, Poland, Romania and Turkey. An EPO (European Patent Office) application is pending.

Profile Origin

Private (in-house) research

Keywords

Technology

01001001	Automation, Robotics Control Systems
02002009	Machine Tools
02002011	Machining, fine (grinding, lapping)
02002013	Moulding, injection moulding, sintering
02002015	Surface treatment (painting, galvano, polishing, CVD, ..)

Market

08002004 Robotics
08003007 Other industrial equipment and machinery
08005 Other Industrial Products (not elsewhere classified)

NACE

C.33.2.0 Installation of industrial machinery and equipment

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Restrict Dissemination to Specific Countries

Austria, Belgium, Bulgaria, Croatia, CzechRepublic, Denmark, Estonia,
Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia,
Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania,
Slovakia, Slovenia, Spain, Sweden, UnitedKingdom,

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

1981

Turnover

10 - 20M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English

Japanese

Client Country

Japan

Partner Sought

Type and Role of Partner Sought

The partner will be granted the right to exploit the patent/invention, industrial design or utility model, and to utilize know how and expertise.

Partners should show: ability for system integration with local procurement and manufacturing of total system on top of local sales, in order to meet local market requirements. Knowledge and expertise in plastic injection process and robotics application as well as ability of R&D and designing.

Type and Size of Partner Sought

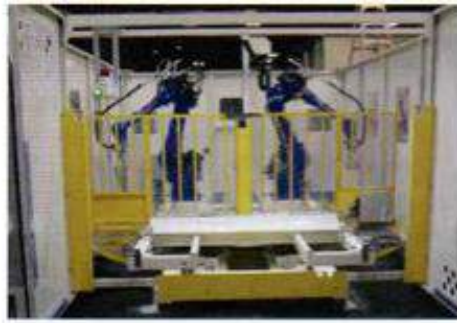
251-500,SME 51-250

Type of Partnership Considered

License agreement

Attachments

machines.png





3.

***TECNOLOGÍAS DE LA
CONSTRUCCIÓN***

Technology Offer

Restoration technology for uneven settlement of structures/foundations

Summary

A Korean SME specializing in the field of innovative construction materials has developed a technology which restores the uneven settlement of structures with high precision. This technology guarantees good durability and high quality of the buildings. It also saves time on construction and has no limitation on the size of the structures. The company is looking for a European partner for a licensing agreement or a commercial agreement with technical assistance.

Creation Date	04 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TOKR20170904001

Details

Description

Irregularities that may occur in the foundations or in the ground while constructing or using a building structure are known as the uneven settlement of structures. In such cases, it is impossible to proceed with the construction process. The Korean SME has resolved this by applying D-ROG (digitized restoring on grout) technology to restore any uneven settlement. It strengthens the ground and guards against re-subsidence.

This technology offers a quick and precise restoration process, leaving the structures themselves as well as those in the adjacent area unaffected by cracks, etc. during construction. In order to reinforce the ground, grout material is permeated, consolidated and injected between the reinforced ground and the foundation structure via an immersion tube with uniform pressure, resulting in a successfully restored structure.

The technology includes the injection of high tech grouts (utilizing injection effects such as permeation, compaction and fracture) into the bottom of the base by establishing a number of injection tubes in order to strengthened the ground. A structure is restored with multiple-source injections using circulation and repetition so as to apply an even pressure between the strengthened ground and base structure.

The company is looking for a European partner for a licensing agreement or a commercial agreement with technical assistance such as engineering or technical consultancy.

Advantages and Innovations

- Highly accurate restoration to millimeter scale through automatically controlled system and equipment

- Simple work procedures and high-tech measurement technology
- Materials are very strong and durable

Stage of Development

Already on the market

IPR Status

Patents granted

Comment Regarding IPR status

Korean patent granted

Profile Origin

COSME

Keywords

Technology

02006001	Materials, components and systems for construction
02006002	Construction methods and equipment
02007002	Building materials
02007005	Composite materials

Market

09007001	Construction companies
09007002	Manufacture of construction materials, components and systems
09007003	Distribution of building products and systems

NACE

C.23.3.2	Manufacture of bricks, tiles and construction products, in baked clay
C.23.6.1	Manufacture of concrete products for construction purposes
F.43.2.9	Other construction installation
F.43.9.9	Other specialised construction activities n.e.c.

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Sustainable Construction

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

South Korea

Partner Sought

Type and Role of Partner Sought

- Type of partner sought : Companies
- Specific area of activity of the partner : construction companies which specialize in ground improvement and grout materials
- Use the offered technology through a license agreement or purchase the technology and the relevant technical support through a commercial agreement with technical assistance

Type of Partnership Considered

License agreement

Commercial agreement with technical assistance

Attachments

Technology Offer

Technology for low cost manufacturing of singly and doubly curved composite and plastic panels without a mould.

Summary

This Dutch industrial company developed a solution to manufacture singly and doubly curved composite and plastic panels using numerical controlled production techniques. In this way an expensive mould is not necessary. They are looking for partners who are looking for technology to manufacture double curved panels to team with for architectural and construction projects. Cooperation based on a manufacturing agreement or a commercial agreement with technical assistance.

Creation Date	29 August 2017
Last Update	29 September 2017
Expiration Date	29 September 2018
Reference	TONL20170531001

Details

Description

This Dutch company solved the well known problem that for manufacturing of singly or doubly curved products a labour intensive and high expensive mould is needed. The common problems of prototyping and small-series production of singly and doubly curved - products are high tooling costs, long lead times and storage/disposal issues of moulds.

For the solution of this problem, the company developed a technology based on ICT principles of Smart Industry to realize a digital production technology that enables to manufacture singly and doubly curved products without the costs of plugs and tooling. This manufacturing technology was developed based on Industry 4.0 principles for the production of this kind of panels. This technology is distinctive in realizing affordable one-offs and small series of composite and plastic products.

For the manufacturing an adaptive mould is used, which reconfigures itself to the required shape meaning that endless shapes can be produced from a single piece of equipment. This eliminates the use of conventional tooling and therefore economic and environmental waste.

The company is looking for technical cooperation with companies in architecture and large public artworks. With their special production facilities they enable architects to design organic façades and artist's free-form shapes without the concern of the high non-recurring costs of manufacture.

Cooperation can be arranged in the frame of a manufacturing - or a commercial agreement with technical assistance.

Advantages and Innovations

By using an adaptive, digital controlled mould for the manufacturing of singly or doubly panels, it is possible to manufacture these products without tooling costs and plug and tooling wastes. This means that organic forms are not restricted to high-budget high-profile projects. This technology is flexible in terms of the shape of the product and the moment of manufacturing. Even last-minute changes in design are possible by a simply update of the 3D drawing. These changes can be send instantaneously to the adaptive mould. The manufacturing equipment can be run remotely, ensuring efficient process flow from engineering to production.

Stage of Development

Already on the market

IPR Status

Patent(s) applied for but not yet granted

Profile Origin

National or Regional R&D programme

Keywords

Technology

02002005	Forming (rolling, forging, pressing, drawing)
02006001	Materials, components and systems for construction
02007005	Composite materials

Market

09007002	Manufacture of construction materials, components and systems
----------	---

NACE

C.22.2.3	Manufacture of builders' ware of plastic
F.43.3.3	Floor and wall covering

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group
Materials

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2014

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Dutch
German

Client Country

Netherlands

Partner Sought

Type and Role of Partner Sought

The company is looking for cooperation with companies in architecture and large public artworks who are interested in the application of organic façades and artists free-form shapes.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance

Attachments

manufacturing 3D panels.jpg



Technology Offer

Innovative LED light solutions and modules for customized applications - safety lighting, warning signs, marks, boundaries, advertising displays, functional and decorative light features on yachts, caravans and interior items

Summary

A German company offers innovative LED light solutions and modules for customized applications e.g. safety lighting, warning signs, boundaries, advertising displays and also for functional or decorative light features on yachts, caravans and interior items. The offer includes prototyping, manufacturing, assembly as well as hard / software development and programming of intelligent control functions. The company seeks lighting system developers for commercial agreements with technical assistance.

Creation Date	08 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TODE20170727001

Details

Description

Although LED illumination represents state of the art lighting systems, there are fast changing trends in LED applications, designs, modules and arrangements. Especially the integration of individualized recognizable LEDs in products / buildings / public places / private locations etc. has become an effective and attractive way to implement functional, but also unique visual features at the same time.

A German company develops and manufactures customized innovative LED light solutions and modules for a wide range of applications. This includes prototyping for new lighting systems/applications, manufacturing, component distribution and assembly as well as the development of respective hard and software (switching circuits, hardware layout, engineering data, software programming). Thermo and waste heat management as well as programming of intelligent LED control such as dimming, intensity and colour effects, time intervals, motion and other sensors and other various regulation features can also be included.

These environmentally friendly, mercury-free LED light solutions offer 40% energy savings and have a 5-times higher lifetime than conventional energy-saving-lamps.

The current portfolio comprises a variety of LED bulbs and customized individual LED modules. Applications of the innovative light solutions are for example indoor or outdoor safety lighting, warning signs, marks, boundaries, advertising displays, but also LED light features on yachts, boats, caravans or interior items. An attractive visual product of the company for instance are

single or multicolored radio-controlled LED units used to illuminate tall textile-covered party tables.

The company is looking for lighting system developers and producers who integrate the innovative LED bulbs and modules into their lighting products or jointly develop new functional and attractive applications.

Advantages and Innovations

- customized innovative LED light solutions and modules for a wide range of applications
- environmentally friendly
- mercury-free
- 40% energy savings compared to conventional energy-saving-lamps
- 5-times higher lifetime than conventional and energy-saving-lamps
- fast prototyping for new applications

Stage of Development

Already on the market

IPR Status

Patents granted

Profile Origin

National or Regional R&D programme

Keywords

Technology

01002003	Electronic engineering
02006004	Installations related to construction (energy, lighting, ...)
02009020	Lighting and signalling system

Market

08005	Other Industrial Products (not elsewhere classified)
09007002	Manufacture of construction materials, components and systems

NACE

C.27.4.0	Manufacture of electric lighting equipment
----------	--

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Ref: TODE20170727001

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Environment

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2010

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

Company seeks industry partner, lighting systems developers and manufacturers for joint lighting system development; integration of the proposed innovative LED bulbs, modules and arrangements into lighting systems; cooperation includes prototyping, soft and hardware development, programming as well as engineering and technical assistance

Type of Partnership Considered

Commercial agreement with technical assistance

Attachments

Technology Request

Research, certification, and production demand for evacuation project in case of emergency for high-rise or remote buildings, and architectural construction with difficult access

Summary

A SME from Germany is focussing on mechanical engineering. For several years, the SME was involved in a R&D project. The research product is a rescue system for buildings and architectural constructions from a height of about 100m/328ft and enables to an evacuation of up to 30 people per minute. Partners are sought for a research or technical cooperation agreement and/or a manufacturing agreement.

Creation Date	19 September 2017
Last Update	26 September 2017
Expiration Date	26 September 2018
Reference	TRDE20170803001

Details

Description

The rescue system was developed by a SME in Saxony, Germany. The evacuation system consists out of five elements: an evacuation hose, valves, springs, floor anchorage, and an evacuation slide/emergency chute.

Description of each element:

Evacuation hose: The evacuation hose is the principal item in the rescue system. Over the course of the project phase, six different hoses were tried out at a test station. For the effective testing of the hoses, a 24m (79ft) high scaffold tower was built and technically equipped/furnished to be a test station. The objective of these tests was to examine the influence of different parameters on the braking action. The result is a verifiably reliable and functioning evacuation hose.

The fundamental requirements of the hose are:

- Fire-resistant up to 400°C (752 °F)
- Tear-resistant
- Slow persons down to less than 3m (9.84 ft) /second
- Foldable
- Self-inflatable
- Smoke proof

Valves: To use the air, which is eliminated, from chambers, the use of backpressure valves in the intermediate shelves is necessary. These guarantee that the air is directed into the next chamber unfailingly before the body passes. A variety of designs was tested, including off-the-shelf ventilation flap valves, nautical blow-up valves and different in-house constructions.

The valves have the following requirements:

- Good responding qualities (meaning that the valve already shuts with minor variations in pressure)
- Very flat design so that the hose can be folded at a later time
- A high rate of air flow
- Not sensitive to creases in the intermediate shelves
- Leak proof, even with low pressure
- For installing vertically, whereby it needs to be sealed at the top
- No, or very little “clacking” or swaying

Springs: The evacuation hose retains its shape through the circumferential direction of the coil springs attached to the outer side. This ensures that the pretension has an effect on the inner hose. Since the spring can only be inserted into the channel bit by bit, the connection between these springs is of particular importance.

Floor anchorage: An abutment on the ground is a fundamental prerequisite in order to stretch the ropes. This is implemented through the floor anchoring system described below. The bulk of the tensile rope’s weight is set at 5 tons.

Requirements:

- Reliable and resilient non-electrical locking of the tensile rope weight in the funnel
- Unauthorized layers of the tensile rope weight, resulting in toppling over or the like, are to be avoided at all costs
- Manual release of the lock must be possible
- Protected against parked vehicles or the like
- Safeguarded so that people cannot fall in

A coat of neither ice, snow, sand nor standing water may handicap the functions of the floor anchoring system.

Evacuation slide/emergency chute: To guarantee a “gentle” landing on the ground, an evacuation slide is located at the end of the evacuation hose.

The slide is designed in such a way that when the feet hit the slide, it drops and the person lands safely on the ground with their feet first.

Requirements:

- The top part of the slide must be shaped in such a way that people cannot fall out of it
- The slide must fit into a case
- The slide must be able to fit into the hose area between the tensile ropes (1780mm or 70 inches)
- After the slide has borne the weight of one person, it must be able to return to its starting position and form on its own
- The slide must be in close proximity to the hose

The demand on production competences for the realization of a manufacturing agreement are described above. A technical cooperation refers to the clarification of relevant certification. A research cooperation agreement is sought for further development of particular materials.

Technical Specification or Expertise Sought

Partners are sought that are able to support the project with R&D and certification competences. Further, there is a need for production capacities within the framework of a research or technical cooperation agreement.

Stage of Development

Field tested/evaluated

Comments Regarding Stage of Development

The fire disaster at the Grenfell Tower in London displays the relevance of such an evacuation system.

IPR Status

Secret Know-how

Keywords

Technology

02006001	Materials, components and systems for construction
02006004	Installations related to construction (energy, lighting, ...)
10001003	Fire Safety Technology
10001004	Hazardous Materials
10001006	Protection against intoxication

Market

05007007	Other medical/health related (not elsewhere classified)
08003007	Other industrial equipment and machinery
09007002	Manufacture of construction materials, components and systems
09007004	Engineering and consulting services related to construction

NACE

C.28.9.9	Manufacture of other special-purpose machinery n.e.c.
F.41.1	Development of building projects
F.43.9.1	Roofing activities
M.71.1	Architectural and engineering activities and related technical consultancy
M.71.1.2	Engineering activities and related technical consultancy

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Sustainable Construction

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Experience Comments

Special Offshore Application Option: One million people around the world are working on more than 2,800 offshore platforms. In case of an accident, you often find leak of deadly gases that complicates the evacuation of workers extremely. The rescue system is able to evacuate a large amount of people within a short time. With the globally unique special airtight tubes, there is protection against toxic gases, such as methane and sulphuric acid.

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

Type: SME, MNE; Certification agencies

Activity: Certification, fire protection, construction, architecture, urban and infrastructure planning

Role:

Research cooperation agreement: Improvement of existing materials

Technical cooperation agreement: Support to realize relevant certification procedures.

Manufacturing agreement: Production of a pilot series.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement

Technical cooperation agreement

Research cooperation agreement

Attachments



4.

MATERIALES

Technology Offer

Graphene sheets production method

Summary

A Spanish university developed a new method for the production of graphene sheets with 1 to 5 layers. The sheets are produced by rubbing the material between two substrates. The method is cheaper and more environmentally friendly than others because it avoids the use of dissolvents. The material has multiple applications in semiconductors, electronics, battery energy and composite industries. The university is willing to licence the technology to companies from the above mentioned fields.

Creation Date	06 September 2017
Last Update	15 September 2017
Expiration Date	15 September 2018
Reference	TOES20170906003

Details

Description

A Spanish university has developed a new method to produce graphene, one of the most promising materials developed during last years. Due to its physical properties graphene has a wide range of applications: semiconductors, electronics, battery energy or composite industry. The new method consists in rubbing the powder of a material selected from graphene, boron nitride, molybdenum disulfide or tungsten disulfide between two substrates.

A sheet of a few strips is formed on at least one of the substrates. The results are very promising as sheets of several strips with 1 to 5 layers of graphene have been obtained. The strips are of a high quality as they don't present any holes in their atomic structure. The new method is cheaper and more environmentally friendly than others because it avoids the use of dissolvents.

Several experiments have been carried out to demonstrate the performance of the method under different conditions: pressure applied in the rubbing process, rubbing time, use of different substrates, etc.

The university is looking for industrial partners from the electronic components industry or manufacturers of this type of highly innovative materials willing to licence the technology.

Advantages and Innovations

- Low cost method
- Eco-friendly method (no dissolvent)
- Less time-consuming process than existing ones

Stage of Development

Available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

Spanish patent

Profile Origin

Private (in-house) research

Keywords

Technology

01002001	Micro and Nanotechnology related to Electronics and Microelectronics
01002007	Nanotechnologies related to electronics & microelectronics
02007022	Conductive materials
02007024	Nanomaterials

Market

03001001	Semiconductors
03001005	Microprocessors
03004001	Semiconductor fabrication equipment and wafer products
08001009	Speciality/performance materials: producers and fabricators

NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering
----------	---

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Nano- and Microtechnologies

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The university is looking for industrial partners from the electronic components industry or manufacturers of this type of highly innovative materials willing to licence the technology.

Type of Partnership Considered

License agreement

Attachments

Technology Offer

Restoration technology for uneven settlement of structures/foundations

Summary

A Korean SME specializing in the field of innovative construction materials has developed a technology which restores the uneven settlement of structures with high precision. This technology guarantees good durability and high quality of the buildings. It also saves time on construction and has no limitation on the size of the structures. The company is looking for a European partner for a licensing agreement or a commercial agreement with technical assistance.

Creation Date	04 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TOKR20170904001

Details

Description

Irregularities that may occur in the foundations or in the ground while constructing or using a building structure are known as the uneven settlement of structures. In such cases, it is impossible to proceed with the construction process. The Korean SME has resolved this by applying D-ROG (digitized restoring on grout) technology to restore any uneven settlement. It strengthens the ground and guards against re-subsidence.

This technology offers a quick and precise restoration process, leaving the structures themselves as well as those in the adjacent area unaffected by cracks, etc. during construction. In order to reinforce the ground, grout material is permeated, consolidated and injected between the reinforced ground and the foundation structure via an immersion tube with uniform pressure, resulting in a successfully restored structure.

The technology includes the injection of high tech grouts (utilizing injection effects such as permeation, compaction and fracture) into the bottom of the base by establishing a number of injection tubes in order to strengthened the ground. A structure is restored with multiple-source injections using circulation and repetition so as to apply an even pressure between the strengthened ground and base structure.

The company is looking for a European partner for a licensing agreement or a commercial agreement with technical assistance such as engineering or technical consultancy.

Advantages and Innovations

- Highly accurate restoration to millimeter scale through automatically controlled system and equipment

- Simple work procedures and high-tech measurement technology
- Materials are very strong and durable

Stage of Development

Already on the market

IPR Status

Patents granted

Comment Regarding IPR status

Korean patent granted

Profile Origin

COSME

Keywords

Technology

02006001	Materials, components and systems for construction
02006002	Construction methods and equipment
02007002	Building materials
02007005	Composite materials

Market

09007001	Construction companies
09007002	Manufacture of construction materials, components and systems
09007003	Distribution of building products and systems

NACE

C.23.3.2	Manufacture of bricks, tiles and construction products, in baked clay
C.23.6.1	Manufacture of concrete products for construction purposes
F.43.2.9	Other construction installation
F.43.9.9	Other specialised construction activities n.e.c.

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination**Send to Sector Group**

Sustainable Construction

Client**Type and Size of Organisation Behind the Profile**

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

South Korea

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

- Type of partner sought : Companies
- Specific area of activity of the partner : construction companies which specialize in ground improvement and grout materials
- Use the offered technology through a license agreement or purchase the technology and the relevant technical support through a commercial agreement with technical assistance

Type of Partnership Considered

License agreement

Commercial agreement with technical assistance

Attachments

Technology Offer

Technology for low cost manufacturing of singly and doubly curved composite and plastic panels without a mould.

Summary

This Dutch industrial company developed a solution to manufacture singly and doubly curved composite and plastic panels using numerical controlled production techniques. In this way an expensive mould is not necessary. They are looking for partners who are looking for technology to manufacture double curved panels to team with for architectural and construction projects. Cooperation based on a manufacturing agreement or a commercial agreement with technical assistance.

Creation Date	29 August 2017
Last Update	29 September 2017
Expiration Date	29 September 2018
Reference	TONL20170531001

Details

Description

This Dutch company solved the well known problem that for manufacturing of singly or doubly curved products a labour intensive and high expensive mould is needed. The common problems of prototyping and small-series production of singly and doubly curved - products are high tooling costs, long lead times and storage/disposal issues of moulds.

For the solution of this problem, the company developed a technology based on ICT principles of Smart Industry to realize a digital production technology that enables to manufacture singly and doubly curved products without the costs of plugs and tooling. This manufacturing technology was developed based on Industry 4.0 principles for the production of this kind of panels. This technology is distinctive in realizing affordable one-offs and small series of composite and plastic products.

For the manufacturing an adaptive mould is used, which reconfigures itself to the required shape meaning that endless shapes can be produced from a single piece of equipment. This eliminates the use of conventional tooling and therefore economic and environmental waste.

The company is looking for technical cooperation with companies in architecture and large public artworks. With their special production facilities they enable architects to design organic façades and artist's free-form shapes without the concern of the high non-recurring costs of manufacture.

Cooperation can be arranged in the frame of a manufacturing - or a commercial agreement with technical assistance.

Advantages and Innovations

By using an adaptive, digital controlled mould for the manufacturing of singly or doubly panels, it is possible to manufacture these products without tooling costs and plug and tooling wastes. This means that organic forms are not restricted to high-budget high-profile projects. This technology is flexible in terms of the shape of the product and the moment of manufacturing. Even last-minute changes in design are possible by a simply update of the 3D drawing. These changes can be send instantaneously to the adaptive mould. The manufacturing equipment can be run remotely, ensuring efficient process flow from engineering to production.

Stage of Development

Already on the market

IPR Status

Patent(s) applied for but not yet granted

Profile Origin

National or Regional R&D programme

Keywords

Technology

02002005	Forming (rolling, forging, pressing, drawing)
02006001	Materials, components and systems for construction
02007005	Composite materials

Market

09007002	Manufacture of construction materials, components and systems
----------	---

NACE

C.22.2.3	Manufacture of builders' ware of plastic
F.43.3.3	Floor and wall covering

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group
Materials

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2014

Turnover

<1M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Dutch
German

Client Country

Netherlands

Partner Sought

Type and Role of Partner Sought

The company is looking for cooperation with companies in architecture and large public artworks who are interested in the application of organic façades and artists free-form shapes.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance

Attachments

manufacturing 3D panels.jpg



Technology Offer

Tailor-made vibration damping technology saving costs and increasing quality in mechanical engineering and testing applications

Summary

An Austrian SME developed a novel composite material (steel structure filled with special concrete) with excellent vibration damping properties. It is adjustable to individual client needs. For many new machining centers it significantly improved machining accuracy, enhanced tool life (up to 20% decrease in tool consumption), increased processing speeds (e.g. 20% reduced grinding times) and lowered noise emission. Partners for technical and research cooperations are sought.

Creation Date	07 September 2017
Last Update	21 September 2017
Expiration Date	21 September 2018
Reference	TOAT20170907001

Details

Description

In mechanical engineering applications (such as machine tools) vibrations have a detrimental impact on quality of products and tool life. Conventional solutions to reduce vibrations such as grey cast components are quite expensive and not individually adaptable for optimized vibration damping and client needs.

The Austrian company developed a technology with excellent vibration damping characteristics to improve tool life, precision of mechanical operations, machine structure behaviour and sound emission levels significantly.

The system consists of an innovative composite material, comprising a welded steel structure with high structural stiffness filled with special concrete. In comparison to grey cast components the new technology saves costs, especially for small batches and prototypes of machine tools, clamping plates etc. It also allows the integration of additional functionalities and components, such as heating or cooling coils, conduits for energy supply, hydraulics, pneumatics, anchors for lifting and many more. Compared to other composite material technologies (steel structure filled with polymer concrete) the novel system again has significantly better vibration damping behaviour and heat stability and does not contain epoxy resins (has less environmental impact).

The special concrete can be adjusted to individual needs. Specific weight, damping characteristics, modulus of elasticity (E-modulus), compressive strength and other characteristics can be varied in a wide range to meet the particular client requirements. During engineering, the part's natural and resonance frequencies are determined and can be adjusted by design measures if they interfere with the overall structure or machine. Even possibly required vibration boundaries, such as vibration velocity and vibration amplitudes can be taken into account beforehand.

The following types of the system are available and can be adjusted according to specific client requirements:

- type 1: density up to 2,500 kg/m³; E-modulus up to 60,000 N/mm²;
- type 2: density up to 1,200 kg/m³; E-modulus up to 12,000 N/mm²;
- type 3: density 650 kg/m³; E-modulus approx. 5,000 N/mm²; especially suited for moving parts (slides, lathe slides, carriages etc.);
- type 4: density 220 kg/m³; E-modulus approx. 100 N/mm²; especially suited for moving parts (slides, travelling columns etc.);

Application areas:

- The technology is currently in use in machine beds for machine-tools and machining centers (examples are turning, milling, grinding, lathing machine tools of all sizes). It is further applicable in structure parts, base frames and the like.
- The system is also used in the testing industry, particularly in clamping plates, where it is engineered and designed for specific measurement tasks. Applications include testing of engines, transmissions, brakes, sound emissions etc.
- The innovative compound material together with expertise in engineering and simulation are especially advantageous for developing prototypes of new machines.

The SME is looking for:

- 1) technical cooperation partners: companies who want to optimize their new developments of machine tools, machining centers, industrial robots, industrial testing technology etc. by integrating the novel system for vibration damping.
- 2) research cooperation partners to enter into new R&D projects in the framework of funding programmes: R&D organisations with focus on thermal stability of machine tools and/or on the development/analysis of alternative filling compounds.

Advantages and Innovations

- 1) excellent vibration damping characteristics: for machining centers this results in improved machining accuracy, enhanced tool life, higher processing speeds and lower noise emission levels. For example, grinding times were reduced by 20% while maintaining the same grinding results. In another project it was possible to decrease the tool consumption by 20%.
- 2) high temperature stability and heat capacity protecting the machine structure from thermal influences better than common materials and resulting in higher process reliability
- 3) flexibility in design: particular customer requirements such as certain characteristic shapes, integrated conduits for energy, hydraulics etc. can be considered.
- 4) no expensive moulds needed; the filled steel structure (a stay-in-place formwork as such) makes it very cost efficient especially for small batches or even prototypes.
- 5) via modern simulation software certain requirements (such as maximum vibration velocities for testing plates) can be taken into account in the early design phase; best quality results are guaranteed.

Stage of Development

Already on the market

Comments Regarding Stage of Development

The system has proven its advantages in many different applications especially in Austria, Germany and Switzerland for more than 5 years and has been improved and adapted to suit even the most challenging applications.

IPR Status

Secret Know-how, Trade Marks

Comment Regarding IPR status

trade mark protected in EU

Profile Origin

Private (in-house) research

Keywords

Technology

02002009	Machine Tools
02002010	Machining (turning, drilling, moulding, planing, cutting)
02007005	Composite materials
05003001	Vibration and Acoustic engineering
09001002	Analyses / Test Facilities and Methods

Market

08002002	Industrial measurement and sensing equipment
08002004	Robotics
08003001	Machine tools, other metal working equipment (excl. numeric control)
08003007	Other industrial equipment and machinery

NACE

C.28.4.1	Manufacture of metal forming machinery
C.28.4.9	Manufacture of other machine tools

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : Yes

Client

Type and Size of Organisation Behind the Profile

Industry SME 50-249

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
German

Client Country

Austria

Partner Sought

Type and Role of Partner Sought

Specific area of activity of the Partner:

1) Developers and/or manufacturers of machine tools, machining centers, industrial robots, industrial testing technology with the claim to quality leadership for applications in automotive, aviation, shipbuilding, power generation industry and many more.

2) R&D institutions, universities with a research focus on:

- thermal stability of machine tools (thermal simulations etc.)
- development and analysis of alternative filling compounds (geopolymers etc.)

Task to be performed by the Partner:

1) technical cooperation partners: companies who want to optimize their new developments (machine tools, industrial testing technologies etc.) by integrating the novel system for vibration damping. The Austrian SME offers FEM (finite element method) analysis, design, engineering, fabrication and assembling of the system according to client requirements together with expertise and extensive experience in machine tool design and engineering in all areas of machine tools.

2) research cooperation partners: R&D organisations with the above mentioned research areas to enter into new R&D projects in the framework of funding programmes.

Type and Size of Partner Sought

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

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Attachments

clamping plate for industrial testing.PNG



machine base examples.PNG



Technology Offer

Volume production readiness for cyber skin

Summary

A UK research group has developed and tested methods for making stretchable electronics in volume, based on biocompatible elastomers. Wearable and implantable prototypes exist. Further concept testing and scaling up is sought with developers of smart biosensors and consumer and health products, both in industry and academia. Cooperation type is likely to be licensing or technical cooperation.

Creation Date	25 September 2017
Last Update	02 October 2017
Expiration Date	02 October 2018
Reference	TOUK20170925001

Details

Description

Stretchable electronics is coming of age. Research into it has been on-going for over a decade. In the early days, it was regarded as a technology-push type innovation but the first products on the market make a case for it and have encouraged talk of a new massive trend. Electronics will transform into structural electronics. This means that electronic devices will be built into things, they will become invisible. Instead of something that you wear, electronics will be built into things such as cyber skin.

A well renowned research group in the East of England has now developed methods that allow for scaling up the making of stretchable electronics on biocompatible substrates.

The group has prototyped devices such as skin sensors (see the Pictures). Such circuits have been trialed as both wearable and implantable.

From a technology perspective, the limits have been pushed. High resolution, down to 50 nm, has been achieved. Simple patterning is amenable to volume production. From the biocompatibility and applications perspective, the process is free from harmful substances. The morphology and roughness of the substrate can be varied so as to accommodate for electrochemical sensors, enzyme immobilisation and other desirable features. It is not difficult to imagine how for example biosensors can be integrated into consumer or healthcare products so they are less intrusive and much easier to accept.

The UK University wishes to team up with companies but also researchers developing smart devices and sensors in the fields of human and veterinary health, smart textiles or clothing, skin patches, socially acceptable robots etc. The types of co-operation may include licensing or technical co-operation.

Advantages and Innovations

This is the first time that metal electrodes can be deposited reliably on biocompatible elastic substrates using existing and scalable machinery. The method allows for both:

- High resolution;
- Chemical compatibility with well-known biocompatible polymers and elastomers.

The main advantage is the possibility for volume production of numerous smart sensors, stretchable consumer products etc.

Stage of Development

Available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Profile Origin

National or Regional R&D programme

Keywords

Technology

01002001	Micro and Nanotechnology related to Electronics and Microelectronics
02007014	Plastics, Polymers
02007018	Advanced Textile Materials
06001021	Single Use Products and Consumer Goods
06001024	Medical Biomaterials

Market

05003003	Surgical implants
05009003	Animal health
07001004	Sporting goods, hobby equipment and athletics clothes
07004002	Health and beauty aids

NACE

P.85.4.2	Tertiary education
----------	--------------------

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

Type of partner sought: industry and academia;

Specific activity of partner: developers of health and consumer products, also veterinary products that will benefit from stretchable electronics;

Role of partner sought: joint prototyping and scaling up.

Type and Size of Partner Sought

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

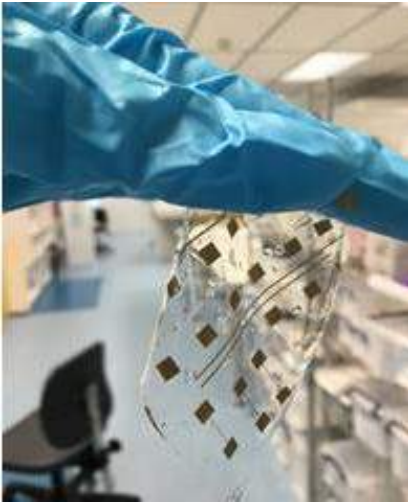
Type of Partnership Considered

License agreement

Technical cooperation agreement

Attachments

Capture2.PNG



Capture.PNG



Technology Offer

Enrichment of the iron-bearing materials through zinc removal in reductive roasting process. A Polish R&D institution is looking for commercialization partners.

Summary

Polish R+D Institute operating in the field of pyrometallurgy, hydrometallurgy, treatment of ores and other mineral resources, treatment of scrap and wastes, processing of metals and alloys, is interested in license agreement and research / technical cooperation agreements for tailored solutions. This would be of interest to companies interested in technology adaption and for those who are looking for reducing waste disposal costs and raising higher than standard level the metal recovery rate.

Creation Date	11 July 2017
Last Update	06 October 2017
Expiration Date	06 October 2018
Reference	TOPL20170711001

Details

Description

The by-products from iron metallurgy, such as dusts and sludge from process gas dedusting, currently contain amounts of zinc which are too high to be redirected in the technological process. The offered technology allows removing zinc and other substances from those materials in the reductive roasting process in the Waelz kiln.

Steelmaking dusts and sludge cannot be redirected to the steel production process due to their high zinc content. Currently they are partly redirected to the process and the remaining part is temporarily stored.

The offered technology allows to process the dusts and sludge from steelmaking industry and to produce iron concentrate which contains less than 0,3% zinc. This product can be used in the iron and steel metallurgy as the substitute for the iron ore. Zinc concentrate produced as a by-product of the technology can be also utilized in zinc metallurgy.

The research Institute offers the possibility to test the material processing in laboratory and pilot scale as well as to implement this technology in the industry.

According to the philosophy of scientific research activity Institute is mainly interested in commercialization. Institute is aware of the diversity and variability of materials processed in their technology. This variability may require additional collaboration. Therefore Institute is interested in Research Cooperation Agreement and the Technical Cooperation Agreement as well is open to discuss the joint research and technology development.

Advantages and Innovations

Ref: TOPL20170711001

The main advantages of this technology is reducing waste materials in the industry. It allows to utilize all the steelmaking dusts and sludge. The technology also allows produce the iron ore substitute and process the iron-bearing materials which contain zinc in more effective and less complicated method than the alternative ones. Additional advantages are improvement in efficiency and lower cost of steelmaking.

Stage of Development

Available for demonstration

IPR Status

Secret Know-how

Profile Origin

Other

Keywords

Technology

02007010 Metals and Alloys

Market

08005 Other Industrial Products (not elsewhere classified)

NACE

C.23.9.9 Manufacture of other non-metallic mineral products n.e.c.

C.24.1.0 Manufacture of basic iron and steel and of ferro-alloys

C.24.4.3 Lead, zinc and tin production

M.72.1.9 Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

R&D Institution

Year Established

1952

Turnover

>500M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
German

Client Country

Poland

Partner Sought

Type and Role of Partner Sought

The potential partners are the companies which are involved in steel metallurgy and the recycling of the metallurgical waste.

The potential partner is expected to be ready to implement the technology after positive economical evaluation. Partners are sought for research and/or technical cooperation agreement

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Attachments

Technology Offer

Innovative footwear production technology based on three-dimensional bonding

Summary

A Spanish technology based company has developed and patented a tridimensional bonding technology for manufacturing shoes without seams. This technology reduces the labor power up to 70%. The company is looking for companies interested in licensing and/or commercial agreement with technical assistance.

Creation Date	14 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TOES20170914002

Details

Description

Three-dimensional bonding technology, which has been developed by the Spanish technology based company, aims at reducing the complexity in the manufacture of footwear in order to allow shoe manufacturers to produce world-class articles without transferring part of production to lower-cost countries.

The technology consists of a production method whereby pieces of leather or other flexible material are joined three-dimensionally at its ends, thus replacing the intensive sewing labor by a few seconds of injection of a polymer.

The procedure is carried out by means of a mold and counter-mold between which space is defined with the shape of the item to be obtained. Once the plastic material is injected through the network of channels, it takes about 5 minutes for the material to cure and then the mold can be opened to remove the finished product.

Overall, the main advantage of this technology over other existing production processes consists in the drastic reduction of production costs, due to the elimination of a considerable number of manual operations, as well as the reduction of the cut materials. Moreover, the technology offers a substantial improvement in product performance with improved adaptability, better waterproof qualities, greater three-dimensional stability and durability.

Taking all the aforementioned points into account, producers of footwear are sought with the aim of establishing a technological collaboration, by licensing and/or commercial agreement with technical assistance, in order to implement this bonding technology in their production systems. The three-dimensional bonding process developed will make easier the production of footwear, plus having a great economic impact for the sector.

Advantages and Innovations

- This technology will produce strong impact on final product quality and on process efficiency by:
- Reduction of mechanical operations on uppers (reduction of labour power up to 70%)
 - Improvement of the comfort because of the upper uniform pressure.

- Improvement of the waterproof property due to the absence of seams.
- Elimination of solvent based glues, eliminating problems of toxicity.
- Reduction of the carbon footprint associated with shoe manufacturing.
- Elimination of excess upper material, reduction of material costs up to 52% compared with the traditional manufacturing method.
- Increasing of durability and lifetime.
- Total chafing prevention.
- Improvement of inserts bonding.
- Reduction of production time up to 65%.
- Optimization of bonding between upper and sole.

Stage of Development

Available for demonstration

IPR Status

Patents granted

Profile Origin

Private (in-house) research

Keywords

Technology

02002007	Joining techniques (riveting, screw driving, gluing)
02002013	Moulding, injection moulding, sintering
02003001	Process automation
02007014	Plastics, Polymers
02007019	Lightweight materials

Market

07004001	Clothing, shoes and accessories (including jewellery)
08005	Other Industrial Products (not elsewhere classified)
09003001	Engineering services
09004003	Textiles (synthetic and natural)

NACE

C.28.9.4	Manufacture of machinery for textile, apparel and leather production
----------	--

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

The expected partner is a footwear producer interested on implementing such innovative technology to be allowed to produce in EU/USA. Moreover, it should be borne in mind that cost savings are directly related to the volume of the production batch, since the technology entails certain investment in machinery and molds. This means that the technology would be profitable in production batches per model superior to 1500 pairs.

- Specific area of activity of the partner:
Footwear production.

- Task to be performed:
Manufacture of footwear using the developed technology by licensing and/or commercial agreement with technical assistance.

Type of Partnership Considered

License agreement
Commercial agreement with technical assistance

Attachments

SW1.jpg



Technology Offer

New catalyst for the synthesis of cycloheptatriene and derivatives

Summary

Three Spanish research centers have developed a new catalyst for the synthesis of cycloheptatriene and its derivatives. Cycloheptatrienes are very important compounds for chemical and pharma industries and this new catalyst allows their production with higher performance and selectivity than the existing methods. The new catalyst is reusable, stable and easily scalable. Researchers are seeking partners to reach license agreements or technical cooperation agreements for further developments.

Creation Date	12 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TOES20170912001

Details

Description

Cycloheptatrienes and their derivatives are compounds with high potential in fine and pharmaceutical chemistry, but their use is limited due to the difficulties existing on their preparation. Unlike the classic 5 or 6 member cycles, widely used in industry, 7 member cycles have a high steric impediment and, consequently, very different chemical properties. This synthetic process is catalyzed so far with rhodium complexes in solution, which are very expensive, toxic and non-reusable.

Development of catalyst to outperform industrial process (like the synthesis of cycloheptatrienes) and technological advanced societies go hand by hand since the last two centuries. In this regard, subnanometric metal clusters attract the interest of the chemical industry because they show an extremely high catalytic activity and very good selectivity for different organic reactions. Despite some synthetic improvements, more efforts are required to synthesize these clusters in a controlled manner as well as to better determine their structure, nuclearity and shape in order to achieve better yields in catalysis.

Researchers from three Spanish public research organizations have developed a novel subnanometric catalyst for the synthesis of cycloheptatrienes.

The invention is applicable in industrial scale. Cycloheptatrienes can be used as a “building blocks” in the synthesis of taxanes and rotaxanes, which are very important compounds in pharmaceutical chemistry. Additionally, they can be used as fragrances, as well as precursors in the synthesis of polymers.

Researchers are seeking partners to reach license agreements or technical cooperation

agreements to go on with the development of the technology.

Advantages and Innovations

The synthetic procedure is simple and the solid catalyst is stable, thus, it can be recovered and reused repeatedly, maintaining its activity and catalytic selectivity. It allows the obtention of cycloheptatrienes in an easy way with a high performance and selectivity, with respect to the process existing until now. In this way, the catalytic system allows the production of cycloheptatrienes, with a price of around 10 euros per kg.

The main advantages provided by the invention are:

- Stability of subnanometric clusters: Due to its stability for the first time, it had been properly characterize.
- Reusable: without losing catalytic activity.
- One-stage procedure for the obtention of cycloheptatrienes and its derivatives (great variety) which simplifies the existing processes for the preparation of these products.
- Improves process performance and selectivity with respect to the state-of-the-art.
- Cost reduction: the catalyst operates in flow for hours allowing to recycle the solvent and is also reusable
- Easy process scalability: the simplicity of the process for preparing the catalyst allows an easy scale up of the production.

Stage of Development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

Spanish patent applied for but not yet granted.
It is possible to apply for PCT

Profile Origin

Other

Keywords

Technology

02007006	Fine Chemicals, Dyes and Inks
03004006	Organic Substances
03004007	Pharmaceutics
03004010	Special chemicals, intermediates

Market

05007002	Pharmaceuticals/fine chemicals
08001015	Other speciality materials

NACE

M.72.1.1 Research and experimental development on biotechnology
P.85.4.2 Tertiary education

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: companies or research centers
- Specific area of activity of the partner: with expertise in chemical and pharma sectors
- Task to be performed: The potential partners include pharmaceutical, drug development and fragrances industries and also enterprises in the specific area of catalyst, advanced materials, nanotech, etc., for licensing the invention, testing of applications, adaptation to specific needs, production and marketing.

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

License agreement
Technical cooperation agreement

Attachments

Technology Offer

Chip-integrated optical sensor

Summary

A label-free, integrated HCG-based optical sensor which provides specific properties has been developed by a Berlin-based German university. The special geometry of the sensor allows the transformation of the whole or of only a part of a normal or of an oblique incidence wave into the in-plane direction. Application fields are environmental monitoring, homeland security, biomedicine, biochemistry or pharmacy. The university is interested in a R&D cooperation or a license agreement.

Creation Date	25 September 2017
Last Update	06 October 2017
Expiration Date	06 October 2018
Reference	TODE20170925001

Details

Description

A Berlin-based German university active in the field of optics has developed a prototype (maturity level 1) of a label-free, integrated HCG-based optical sensor. (A high contrast optical grating (HCG) is a single layer near-wavelength grating physical structure where the grating material has a large contrast in index of refraction with its surroundings. A label or probe is a molecule that is attached chemically to aid in the labeling and detection of a biomolecule such as a protein, antibody, or amino acid.)

The developed sensor provides very specific properties due to its special geometry, which allows the transformation of the whole or of only a part of a normal or of an oblique incidence wave into the in-plane direction. The main advantages of the sensor are its very high sensitivity and the possibility to use a cheap and available vertical cavity surface emitting laser (VCSEL). (No expensive "classic" optics are needed.)

The sensor can be used to detect biomolecular, biochemical and chemical interactions. Possible fields of application are environmental monitoring, homeland security, biomedicine, biochemistry or pharmacy.

The university is looking for partners to develop a ready to the market product. This could be done in the framework of a research cooperation agreement or a license agreement. A license agreement would authorize a partner to use the material and know-how for the further development which leads to the market introduction of the product. But the university is also open to a research cooperation agreement where skills are shared to further the development of the technical aspects with the aim to develop a product which is ready to the market.

Advantages and Innovations

- Use of cheap and available VCSEL device possible
- Monolithically integration of VCSEL as optical source possible

- No expensive "classic" optics needed
- Function given by the finite-size HCG only
- Easy integrated detection due to the redirection of light
- Very high sensitivity
- Multiple detections possible integrated in an array operating with identical VCSELs

Stage of Development

Prototype available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

US patent pending with notice of allowance.

Profile Origin

Other

Keywords

Technology

02007012	Optical Materials
05001001	Analytical Chemistry
05002001	Biosensor
05003002	Optics
09003	Electronic measurement systems

Market

01006001	Defence communications
03005	Laser Related
03007002	Other measuring devices
03007003	Other analytical and scientific instrumentation
04005	Biochemistry / Biophysics

NACE

C.26.7.0	Manufacture of optical instruments and photographic equipment
C.26.8.0	Manufacture of magnetic and optical media
M.72.1.1	Research and experimental development on biotechnology
M.72.1.9	Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

marriad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Bio Chem Tech

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

The university is looking for partners for a license or a research cooperation agreement.
In the framework of a license agreement a partner's role would be the development of a ready to

Ref: TODE20170925001

the market product. Partners could be SME or industry. In a research cooperation agreement the partner could be a SME or a university to further develop the technical aspects of the technology.

Type and Size of Partner Sought

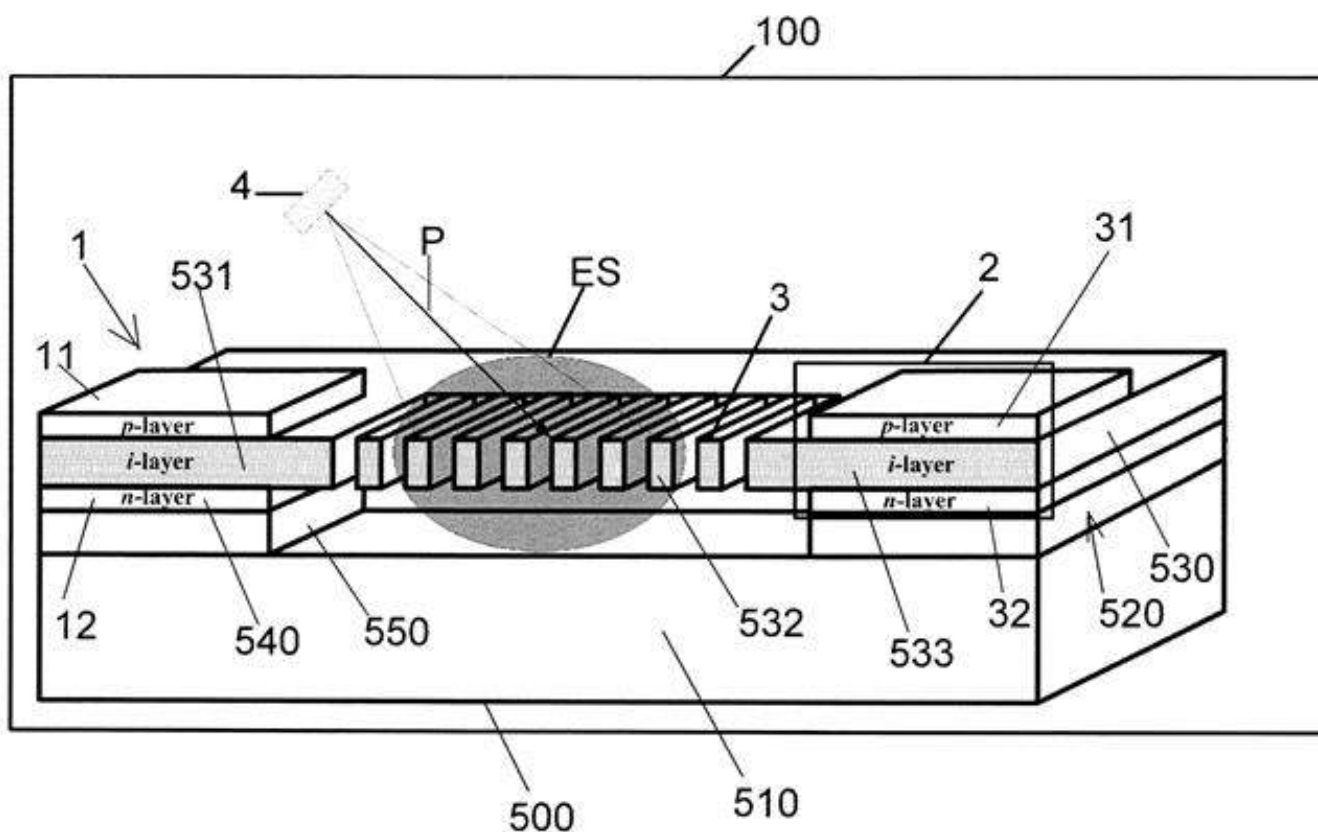
SME 11-50, University, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Research cooperation agreement

Attachments

14029_figure-TO.jpg



Technology Request

Polymer biodegradation screening tests

Summary

An Israeli chemical company is seeking an effective screening methodology for biodegradability of polymers in soil to precede a 2-years biodegradation test in close-to-real soil conditions. Identified technologies that meet the basic criteria (see description section) will receive funding to mature the technology if required, or will be considered for utilizing the services offered. Possible partnerships would be through a research, services or commercial agreement with technical assistance.

Creation Date	18 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TRIL20170918001

Details

Description

An Israeli chemical company is seeking an effective screening methodology for biodegradability of polymers in soil to precede a 2-years biodegradation test in close-to-real soil conditions.

Polymers biodegradation in the soil is affected by multiple factors with intricate co-dependencies: the soil type, the biome of a specific soil sample, geographical location, temperature, moisture, and other factors. Ultimately, biodegradation can only be ascertained in a full long-term test in as real conditions as possible. They are aiming at high biodegradation rates of 90%, or more, in soil over a period of 2 years at 25°C.

For practical reasons, they are looking for an accelerated screening test to quickly select the most promising polymers before commencing a full-length biodegradation test. The accelerated test should take into account the micro-organisms activity, the soil medium, the bacteria culture used for the tests, additives that may be used to accelerate the test, and any other factor that may affect the result and make it meaningful, with the ultimate goal of reliably correlating the accelerated test result to the full 2-years test.

Identified technologies that meet our basic criteria (see description section) will receive funding to mature the technology if required, or will be considered for utilizing the services offered.

Technical Specification or Expertise Sought

The Israeli company is seeking collaboration with analytical laboratories, pilot facilities and high level R&D teams that offer testing services for biodegradation tests (see description section) or are able to perform the required test with little modification.

Stage of Development

Available for demonstration

Comments Regarding Stage of Development

Available for demonstration, or, Available on the market.

IPR Status

Secret Know-how, Design Rights, Patent(s) applied for but not yet granted, Patents granted, Granted patent or patent application essential, Trade Marks, Exclusive Rights, Copyright, Other

Keywords

Technology

02007015	Properties of Materials, Corrosion/Degradation
09001002	Analyses / Test Facilities and Methods
09001003	Chemical material testing
10002011	Soil and Groundwater Pollution
10003001	Biotreatment / Compost / Bioconversion

Market

04009	In vitro Testing, Trials
04012	Toxicology
09008002	Water, sewerage, chemical and solid waste treatment plants

NACE

C.20	Manufacture of chemicals and chemical products
M.72	Scientific research and development

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry >500

Year Established

0

Turnover

>500M

Already Engaged in Trans-National Cooperation

Yes

Certification Standards

FSC
EMAS
ECOCERT
other

Languages Spoken

English

Client Country

Israel

Partner Sought

Type and Role of Partner Sought

Preferred collaboration type(s) could be achieved through a research cooperation agreement, services agreement, or a commercial agreement with technical assistance; and they are are:

- Funded development of the selected screening methodologies
- Collaboration with the Israeli company's Specialty Fertilizers unit
- Utilizing of service

The Israeli company offers full funding for selected technologies towards maturing them. Analytical laboratories, pilot facilities and high level R&D teams will be available to partner.

Type and Size of Partner Sought

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

Type of Partnership Considered

Services agreement
Commercial agreement with technical assistance
Research cooperation agreement

Attachments





5.
TRANSPORTES

Technology Offer

An intelligent speed bump solution for traffic calming

Summary

A Macedonian engineering company is offering an intelligent speed bump that allows for remote operation and configuration that significantly improves the driving experience. The main advantage results from the bump's activation and elevation only when driving speed is above the set limit, resulting in considerable reduction of noise, potential damages and injuries, fuel consumption and air pollution. Partners for license and commercial agreement with technical assistance are sought.

Creation Date	26 September 2017
Last Update	06 October 2017
Expiration Date	06 October 2018
Reference	TOMK20170926001

Details

Description

Since their introduction the traditional speed bumps have been the main tool used by the traffic engineers for limiting the driving speed, particularly in the vulnerable traffic areas. Traditional speed bumps do work, but they also raise considerable safety and cost-related issues, including potential injuries of the passengers, adverse effects on the buses and damages to the overpassing vehicles. Additionally, the traditional speed bumps force vehicles to repeatedly slow down and speed up, which almost doubles the amount of the exhaust gasses and have high impact on the fuel consumption.

To address these challenges, the Macedonian engineering company has developed an intelligent speed bump that combines electronics and software for the purpose of securing high level of responsiveness and height adaption, depending on the driving speed. When the driving speed is above the set limits, the bump acts as a traditional speed bump, whereas for the compliant drivers the bump is on the road level, thus improving the overall driving experience. The solution is composed of a set of integrated sensors used for measuring of the driving speed and a microcontroller used for running a software that regulates the bump's responsiveness and provides valuable data sets. The software can also offer a variety of advanced features, including possibility for dynamic settings in line to specific traffic needs (e.g. different speed limits during day and night). As such, the solution encourages more controlled and consistent driving speeds, enables smoother driving, and improves the overall environmental footprint in the concerned traffic areas.

The company has successfully finished the prototype stage and has started to explore the potentials for commercialisation of the solution. In this regard, the company is looking for industrial partners who will facilitate the market introduction of the proposed intelligent speed bump. The commercialisation path can either involve licensing or selling out the proposed solution under the terms of license agreement or commercial agreement with technical assistance, respectively. In both cases the Macedonian company expects to enrich its base of

international clients and to improve its brand recognition, whereas the potential partners would benefit from improved customer satisfaction and higher financial gains.

Advantages and Innovations

- Increased scope of usability: for instance, the bump can be used more frequently alongside the bus routes, providing smoother and safer driving experience.
- Improved environmental footprint: the solution reduced the level of noise, fuel consumption and air pollution as the bump is activated only for the fast drivers that represent less than 2% of the drivers.
- Allows remote operation and configuration: intelligent speed bumps offer remote administration and configuration, all types of statistics, big data and other advanced features.

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Comment Regarding IPR status

Patent granted in Macedonia.

Profile Origin

Private (in-house) research

Keywords

Technology

02008006 Traffic Engineering / Control Systems

Market

09001005 Motor vehicles, transportation equipment and parts

NACE

M.71.1.2 Engineering activities and related technical consultancy

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Serbian

Client Country

Macedonia, The former Yugoslav Republic of

Partner Sought

Type and Role of Partner Sought

Type of partner sought:

- Manufacturers or suppliers of traffic safety equipment (including traffic signs, signalisation, street equipment, and similar)
- Road construction and maintenance companies

Role of partner sought:

The manufacturers of similar products should be willing to license in the proposed solution whereas the equipment suppliers and road construction companies are offered to use the solution under commercial terms with the Macedonian company providing the technical support whenever needed.

Tasks to be performed:

The producers of traffic safety equipment should be willing to introduce the solution into their existing portfolio and engage in its production under license. On the other hand, the commercial partners should buy and/or promote the solution to their clients (in the case of equipment

suppliers) or purchase it for the needs of their existing or future projects (road construction and maintenance companies). The Macedonian company will provide necessary technical adjustments as well as assistance in the overall process of installation and maintenance of the product.

Type and Size of Partner Sought

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

Type of Partnership Considered

License agreement

Commercial agreement with technical assistance

Attachments

Technology Offer

Smart parking solution based on an IoT network

Summary

An SME from Greece, working in the IT sector, presents a smart parking solution based on an IoT network. The solution uses sensors that can be installed on the road. The system is open to accommodate large number of new technologies and to serve thousands of clients and parking providers. The company is looking for parking management companies or public organizations for commercial agreements with technical assistance or third party providers for technical cooperation.

Creation Date	31 August 2017
Last Update	14 September 2017
Expiration Date	14 September 2018
Reference	TOGR20170831001

Details

Description

A Greek SME company of the IT sector is specialized in the development of enterprise software used by many organizations in the local and central Greek government, developed a software solution for the management of public or private parking lots. Using this solution, drivers can spot empty parking spots while commuting to their destinations and parking owners can have a clear picture of their parking usage.

The described platform is based on an Internet of Things (IoT) network of sensors installed on the road that monitors and reports parking spots availability to a central gateway. The gateway gathers, processes and visualizes the provided information in order to support registered parking owners and drivers. Through a mobile application drivers can locate a free parking spot and head towards it during arrival to their destinations. The system handles the real-time information needs of the system and navigates the user to available traffic spots. It currently uses mobile 4G or narrowband radio frequency secure networks for the data transmission but more options are scheduled for future implementation. Parking owners can define prices tables and other operational parameters of the system and can obtain information about the current status of their parking lot, usage patterns, and related statistical information that can lead to insights and dynamic pricing models.

Based on modern technological trends the system provides a gateway to third-party services or systems with which it can integrate in order to provide a more holistic urban mobility solution. Currently the system is operational in a public and a private organization (pilots of the implementation).

The Greek IT company is looking for parking management companies or public organizations to further evolve the system and expand its functionality according to their feedback. The cooperation sought in this case is commercial agreement with technical assistance. Integration with third party providers or network infrastructure integrators is also of interest, under technical collaboration. Through close collaboration with the possible partners customized versions of the

system can be developed, possibly through joined commercial licensing of the manufactured product.

Advantages and Innovations

The provided solution has the following advantages over simple parking management solutions:

- Automated and instant information about available parking spaces
- Dynamic pricing model enablement based on parking lot usage patterns discovery
- Personalized driver experience and personalized offers
- Advanced analytics for the parking owners
- Layered architecture that allow future enhancements / additions. For example, support for different data transmission protocols (Wi-Fi etc) or other medium of data collectors (camera, magnetic stripes ...)

The system is based in an easily horizontal scalable architecture. At its core ,an advanced novel messaging layer allows the system to scale horizontally to millions of remote mobile devices and to integrate easily with third-party systems.

Stage of Development

Available for demonstration

IPR Status

Other

Profile Origin

Private (in-house) research

Keywords

Technology

01001001	Automation, Robotics Control Systems
01002013	Smart cards and access systems
01004003	Applications for Transport and Logistics
01004004	ASP Application Service Providing
02008006	Traffic Engineering / Control Systems

Market

02003	Specialised Turnkey Systems
02007007	Applications software

NACE

J.62.0.1	Computer programming activities
----------	---------------------------------

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

ICT Industry and Services

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

1992

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Greek

Client Country

Greece

Partner Sought

Type and Role of Partner Sought

The Greek company is looking for parking management companies or parking public organizations to implement the system according to the needs of the user of the system. The cooperation sought in this case is commercial agreement with technical assistance.

Integration with third party providers or network infrastructure integrators is also considered under technical cooperation agreement. Through close collaboration with the possible partners, customized versions of the system can be developed capable to host technologies from the partners. Later, a possible joined commercial licensing of the manufactured product could be sought.

Type and Size of Partner Sought

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

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement

Attachments

Technology Offer

Innovative LED light solutions and modules for customized applications - safety lighting, warning signs, marks, boundaries, advertising displays, functional and decorative light features on yachts, caravans and interior items

Summary

A German company offers innovative LED light solutions and modules for customized applications e.g. safety lighting, warning signs, boundaries, advertising displays and also for functional or decorative light features on yachts, caravans and interior items. The offer includes prototyping, manufacturing, assembly as well as hard / software development and programming of intelligent control functions. The company seeks lighting system developers for commercial agreements with technical assistance.

Creation Date	08 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TODE20170727001

Details

Description

Although LED illumination represents state of the art lighting systems, there are fast changing trends in LED applications, designs, modules and arrangements. Especially the integration of individualized recognizable LEDs in products / buildings / public places / private locations etc. has become an effective and attractive way to implement functional, but also unique visual features at the same time.

A German company develops and manufactures customized innovative LED light solutions and modules for a wide range of applications. This includes prototyping for new lighting systems/applications, manufacturing, component distribution and assembly as well as the development of respective hard and software (switching circuits, hardware layout, engineering data, software programming). Thermo and waste heat management as well as programming of intelligent LED control such as dimming, intensity and colour effects, time intervals, motion and other sensors and other various regulation features can also be included.

These environmentally friendly, mercury-free LED light solutions offer 40% energy savings and have a 5-times higher lifetime than conventional energy-saving-lamps.

The current portfolio comprises a variety of LED bulbs and customized individual LED modules. Applications of the innovative light solutions are for example indoor or outdoor safety lighting, warning signs, marks, boundaries, advertising displays, but also LED light features on yachts, boats, caravans or interior items. An attractive visual product of the company for instance are

single or multicolored radio-controlled LED units used to illuminate tall textile-covered party tables.

The company is looking for lighting system developers and producers who integrate the innovative LED bulbs and modules into their lighting products or jointly develop new functional and attractive applications.

Advantages and Innovations

- customized innovative LED light solutions and modules for a wide range of applications
- environmentally friendly
- mercury-free
- 40% energy savings compared to conventional energy-saving-lamps
- 5-times higher lifetime than conventional and energy-saving-lamps
- fast prototyping for new applications

Stage of Development

Already on the market

IPR Status

Patents granted

Profile Origin

National or Regional R&D programme

Keywords

Technology

01002003	Electronic engineering
02006004	Installations related to construction (energy, lighting, ...)
02009020	Lighting and signalling system

Market

08005	Other Industrial Products (not elsewhere classified)
09007002	Manufacture of construction materials, components and systems

NACE

C.27.4.0	Manufacture of electric lighting equipment
----------	--

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Ref: TODE20170727001

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Environment

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2010

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

Company seeks industry partner, lighting systems developers and manufacturers for joint lighting system development; integration of the proposed innovative LED bulbs, modules and arrangements into lighting systems; cooperation includes prototyping, soft and hardware development, programming as well as engineering and technical assistance

Type of Partnership Considered

Commercial agreement with technical assistance

Attachments

Technology Offer

Positioning technology for mobile robots and autonomous vehicles to navigate in dynamic indoor and outdoor environments without requiring infrastructure

Summary

A Dutch SME is specialized in the development and production of positioning technology modules that enable manufacturers of robots and autonomous vehicles to create new logistic solutions. Most important advantage of the positioning technology is accurate indoor and outdoor positioning without requiring infrastructure. The SME is interested in commercial agreements with technical assistance to develop new navigation solutions for mobile robots and autonomous vehicles

Creation Date	01 September 2017
Last Update	26 September 2017
Expiration Date	26 September 2018
Reference	TONL20170828001

Details

Description

The fast-growing mobile robotics industry requires solutions to be increasingly mobile and autonomous. For that reason a Dutch SME is specialized in the development and production of positioning sensor modules for infrastructure free navigation.

Current mobile robotic systems require recognizable landmarks in the environment. Instead of the landmarks the positioning technology of the Dutch SME uses an advanced optical technology that scans the floor surface. The optical technology determines the movement, position and orientation of the robot or vehicle, which is communicated to the navigation system.

Important features of the offered technology are the measurement principle reaching absolute position and the way of operation.

The measurement principle reaching absolute position can be described by:

- Advanced optical system, using the floor surface as a reference.
- Determines location, orientation and movement.

The way of operation can be described by:

- Infrastructure free, no markers and position immediately found after first initial learning phase.
- Robust in coping with gradual floor changes (wear and dirt).
- Immediate deployment of additional robots in the same operation.
- Sensor data is continuously improved and shared between sensor systems for robustness and fast implementation and scaling

Technical specifications:

- Accuracy: Relative more than 99,8 %. Absolute 10 millimetres continuous, better than 1

millimetre at areas of interest.

- Geometry of the industrial sensor module: 1 single sensor module of 2,5 kilogram, volume of 85x135x320 millimetre,
- Vehicle speed: up to 2 meters per second.
- Data refresh rate: 100Hz.
- Area: 40.000 square meter learned areas, higher on request.
- Power consumption: Less than 30 Watt.
- Environment: Indoor & outdoor industrial surfaces and climate; operating temperature between – 10 Celsius and +50 Celsius,
- International Protection Rating code IP65 (IP67 on request), no impact from external light.

The sensor module can easily be integrated in existing mobile robots and automatic guided vehicles.

The Dutch SME has a small quantity on stock. The delivery time is to the utmost 4 weeks from order.

The Dutch SME is interested in commercial agreements with technical assistance with system integrators or manufacturers of robots and autonomous vehicles.

The Dutch SME offers the positioning sensor module for infrastructure free navigation.

The partner desired should be the system integrator or the manufacturer of the mobile robot or the autonomous or automatic guided vehicle that is interested in accurate indoor and outdoor positioning without requiring infrastructure.

Advantages and Innovations

On this moment there are not many solutions for infrastructure free navigation of robots and autonomous vehicles.

Most important innovations of the positioning technology are:

- The measurement is based on advanced optical technology that scans the floor surface. Combining multiple measurements leads to high accuracy without infrastructure.
- The combination of two different measurement modes ensures continuous reliable position data.

Most important advantages of the positioning technology are:

- Accurate positioning without the need of infrastructure.
- The absence of the need for infrastructure makes the technology flexible and cost-effective.
- The sensor modules can also be integrated in existing equipment (robots, autonomous vehicles).
- Indoor and outdoor navigation with a single system.
- Usable for large spaces (for example warehouses, shipyards).
- Applicable in dynamic environments (for example combined in situations with moving people, equipment or material).
- The technology is also usable in other complex environments, such as inside vessels and pipelines for inspection and cleaning.

Stage of Development

Field tested/evaluated

Comments Regarding Stage of Development

The offered technology is both field tested and evaluated and available for demonstration.

IPR Status

Ref: TONL20170828001

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

Comment Regarding IPR status

Patents are applied for the European countries and most important other industrial countries.

Profile Origin

Private (in-house) research

Keywords

Technology

02003003	Component integration
02008003	Logistics
02009008	Navigation and embedded systems
02010002	Engineering
03003	Apparatus Engineering

Market

08002002	Industrial measurement and sensing equipment
08002004	Robotics
08002007	Other industrial automation
08003007	Other industrial equipment and machinery

NACE

C.30.9.9	Manufacture of other transport equipment n.e.c.
C.32.9.9	Other manufacturing n.e.c.

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2015

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
German

Client Country

Netherlands

Partner Sought

Type and Role of Partner Sought

Type of partner:
Industry

Partners:
System integrators or manufacturers of robots and autonomous vehicles that are interested in new solutions for infrastructure free navigation.

Role of the partner:
The partner desired should be the system integrator or the manufacturer of the mobile robot or the autonomous or automatic guided vehicle that is interested in accurate indoor and outdoor positioning without requiring infrastructure.

The Dutch SME offers the sensor modules for accurate indoor and outdoor positioning without requiring infrastructure.

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

Commercial agreement with technical assistance

Attachments

Technology Offer

Patented new innovative torque coupling technology with applications in automotive, aerospace, industrial and marine sectors

Summary

UK SME has developed several innovative torque coupling technologies with applications in automotive, aerospace, industrial and marine sectors. The couplings combine the benefits of a gear coupling with the functionality of a universal joint, occupying a unique space in the market as a cross over technology. Evaluation/development and/or manufacturing partners with a route to global market are sought together with private investors. Cooperation on a licence and/or financial agreement basis.

Creation Date	15 September 2017
Last Update	25 September 2017
Expiration Date	25 September 2018
Reference	TOUK20170911001

Details

Description

The UK SME's was established in September 2013 to patent and commercialise their novel torque transmission technologies. Their primary business activity is therefore in the development of patents for torque coupling products and licensing of this intellectual property to manufacturing companies. They seek to work collaboratively with partners to further develop products for specific applications that keep those companies at the forefront of their own sectors.

They have developed and patented novel products from their patent portfolio:

- A new and original design for a geometric flexible torque coupling that can be used to replace traditional couplings such as universal joints and gear couplings. Unique in that it only has one moving part using a radical reinterpretation of the well-established cardan joint mechanism to transmit power between misaligned shafts. This novel approach achieves cardan motion in a unique way, creating an extremely compact and robust torque coupling. This offers unique systems integration opportunities, reduced parts count and the potential to redefine torque transmission.

The SME has spent considerable expenditure on engineering development and test programmes to mitigate the perceived technology risks by potential licensees/development partners for the technology. They have also achieved substantial innovation funding and obtained key market research on the market opportunities for their products.

The senior management team has a common history of leadership at the cutting edge of

technology development. This was gained in management and consultancy roles with companies such as Jaguar Land Rover, BMW, Rolls-Royce, BAE Systems and GKN. United by a desire to apply this large-scale industry experience to cutting edge innovation, and to champion pioneers of British industry, their expertise includes mechanical systems design, the design and manufacture of special purpose machinery, and stress engineering. This ensures their coupling technologies have the highest industry expertise applied to its ongoing development and testing.

They now offer an opportunity to ambitious organisations with the vision to develop innovative engineering solutions in partnership. This can include evaluation and development partners, investors and manufacturing licensees capable of providing a route to market for global commercialisation. Cooperation on a financial or licence agreement basis will be considered.

Advantages and Innovations

The product is a major innovation with end users across a vast number of industries.

Flexible torque couplings - key advantages have been identified as being:

1. Outperform equivalent sized universal joints and gear couplings
 - reduced length & weight
 - increased torque, speed, power, misalignment capability
2. Offer unique advantages and cost benefits, at both coupling and system level
 - can be concentrically supported in transmission casings or bearing housings
3. Lower manufacturing cost
 - because of reduced weight, parts count and complexity, manufacturing cost is at least 30% less than an equivalent universal joint
4. Increased power transmission efficiency
 - lighter design, less energy required to accelerate & decelerate rotation
 - shorter design, could also be mounted directly into transmission casings
 - potential to increase driveshaft length therefore reducing angular misalignment, thereby increasing power transmission efficiency
5. Very robust design
 - sealing arrangements eliminates reliance on fragile rubber boots
 - fully enclosed design less susceptible to mechanical damage

Stage of Development

Prototype available for demonstration

Comments Regarding Stage of Development

Further product development/testing of the torque couplings on industrial dynamometers and in field trials under higher loads and speeds necessary is required to establish life and efficiency of torque couplings

IPR Status

Patents granted

Comment Regarding IPR status

Patent(s) granted in UK. Patents have been filed in the following countries: Brazil, Canada, China, Europe (including Switzerland and Turkey), India, Japan, South Korea, Mexico and United States of America.

Profile Origin

Other

Keywords

Technology

02009004	Road Vehicles
02009005	Shipbuilding
02009006	Traction/Propulsion Systems
02009012	Automotive engineering

Market

08003006	Power transmission equipment (including generators & motors)
08003007	Other industrial equipment and machinery
08005	Other Industrial Products (not elsewhere classified)
09001005	Motor vehicles, transportation equipment and parts
09001007	Other transportation

NACE

C.25.9.9	Manufacture of other fabricated metal products n.e.c.
----------	---

Network Contact

Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

Contact Person

Maria Dolores Guillén Ruiz

Phone Number

+34 955 00 74 78

Email

mariad.guillen.ruiz@juntadeandalucia.es

Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry >500

Year Established

2013

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

- Under financial agreement

To maximise on the commercial potential of the technologies investors willing provide investment enable the SME to accelerate their product prototype manufacture and testing regime and employ further resources to find and engage with more interested parties who can exploit technologies within their markets.

Therefore, an angel investor, investment fund, or international conglomerate who are interested in funding the further research, development and exploitation of the patented technology. An investor is sought with the patience and vision to see the global growth opportunity.

- Under licence agreement

Product development partners with the specialist knowledge in the torque coupling market. Potential partners for example could be original equipment manufacturers and/or industrial partners with the capability to support:

1. technology and market potential evaluation
2. product development/testing of the torque couplings on industrial dynamometers and in field trials under higher loads and speeds necessary to establish life and efficiency of torque couplings
3. manufacture
4. marketing
5. distribution and sales

Type and Size of Partner Sought

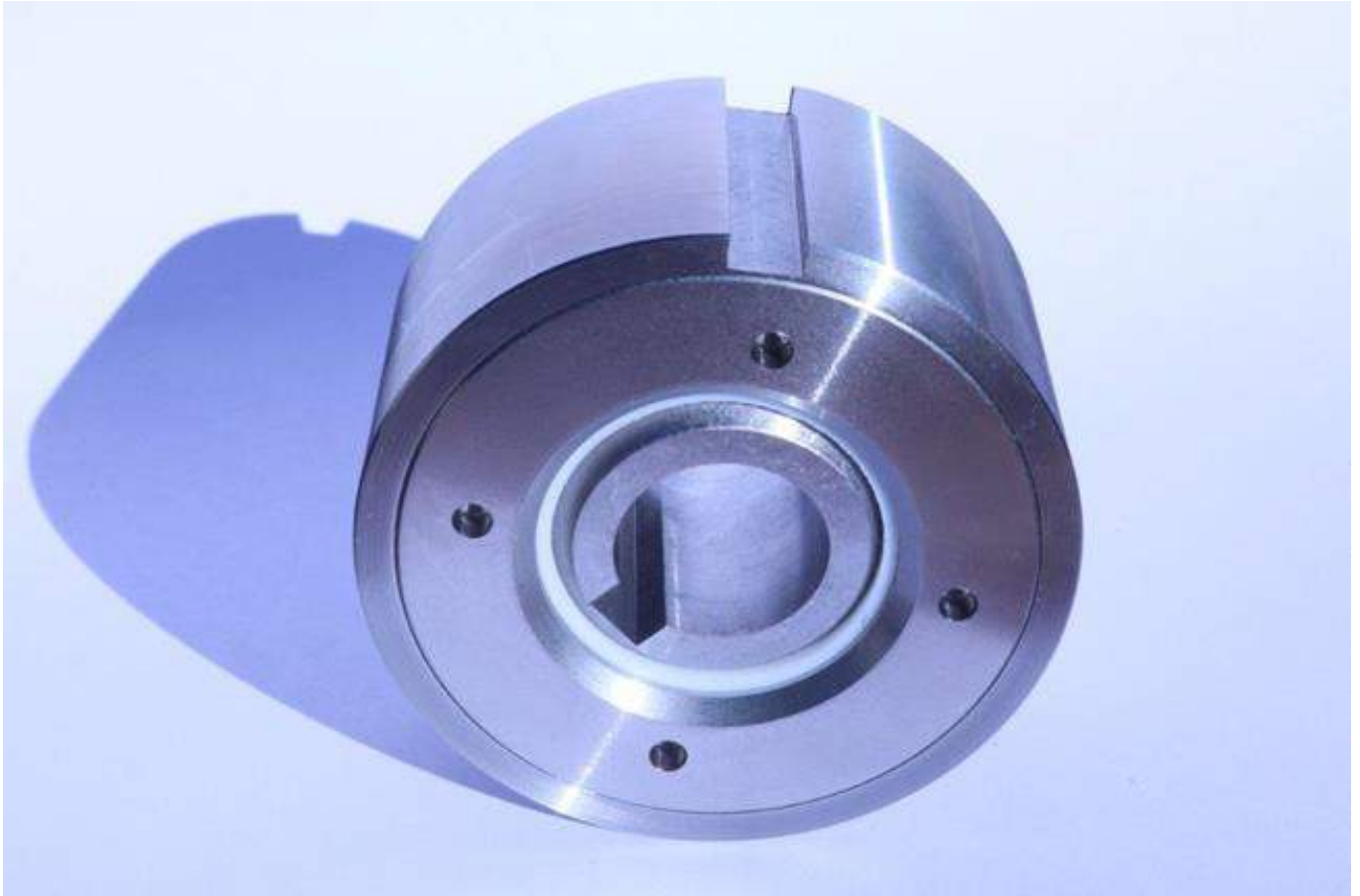
SME 11-50, University, Inventor, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Financial agreement

Attachments

IMG_0191 Small.jpg



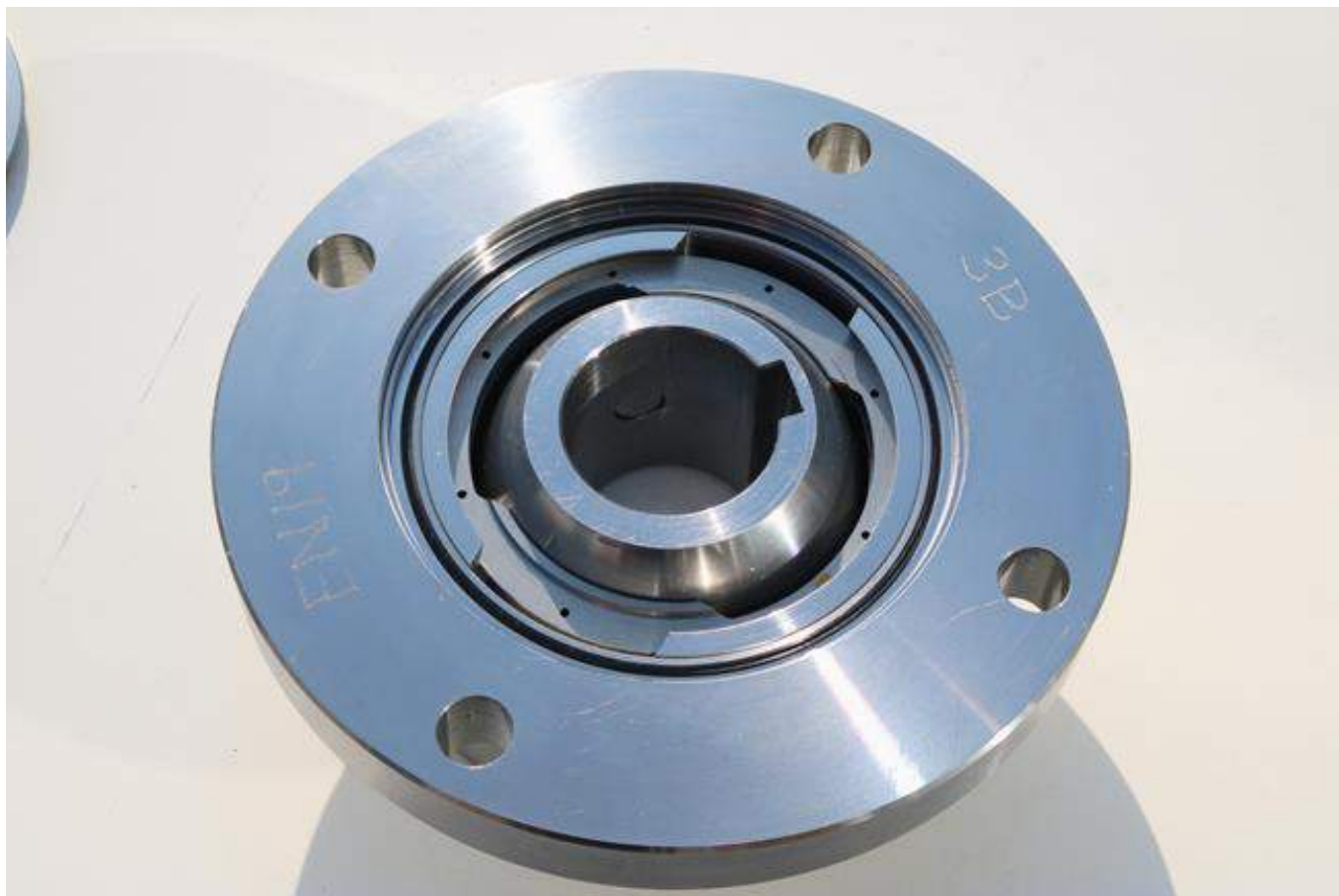
2016-03-17-17.46.57 ZS (4).jpg



Retouched Explode Cassette _Flat.jpg



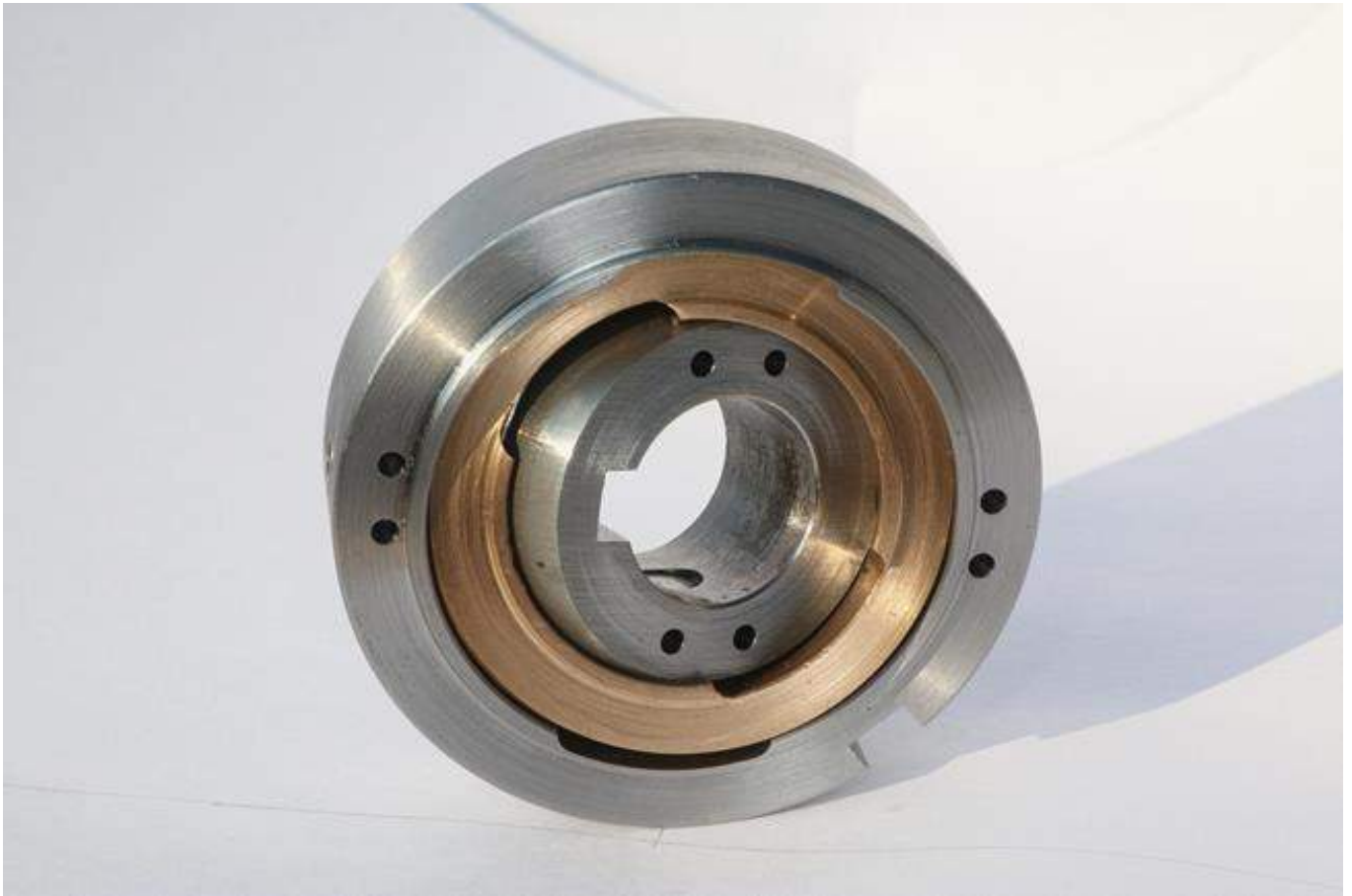
DuoDrive Flange Side Open.jpg



DuoDrive Flange Side Open with Seals.jpg



2016-03-17-17.46.57 ZS (3).jpg



IMG_0172 Small.jpg



2016-03-17-17.46.57 ZS (1).jpg



IMG_0196 Small.jpg



2016-03-17-17.46.57 ZS (2).jpg



DuoDrive Group Flange Down Sealed.jpg



IMG_0199 Small.jpg

