

The graphic features a stylized globe with a grid of latitude and longitude lines, overlaid with a network of white lines and dots. The words 'enterprise europe' are written in a white, lowercase, sans-serif font across the center of the globe.

enterprise europe

# Boletín de Oportunidades de Cooperación: Emergentes

**Boletín nº 138**  
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Agencia Andaluza del Conocimiento  
**CONSEJERÍA DE ECONOMÍA Y CONOCIMIENTO**



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# Otras Tecnologías Industriales

## Technology Offer

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# Mechanical ultrahigh vacuum components: positioning tool for CF flange offered

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## Summary

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*A German Research Group of a University has developed a reusable positioning tool for common mechanical connecting components, called CF flanges. It aims to avoid copper gasket losses. These gaskets are positioned between CF flanges in ultra-high-vacuum components. Thus this development offers cost and time savings while mounting the CF flanges. The University is looking for industrial partners for license agreements.*

<b>Creation Date</b>	29 October 2015
<b>Expiration Date</b>	15 November 2016
<b>Reference</b>	TODE20151029001

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## Details

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### Description

CF flanges are well-established mechanical connecting components for building ultra-high-vacuum environments. There are several geometries of the tubes that follow the ISO/TS 3669-2 standard, so that the customer can combine products from different companies.

Nevertheless, a rather tricky task remains: For sealing the contact points between two different CF flanges, the technician has to mount a thin gasket between the two outer ends of the flanges before tightening the bolts. The gasket is typically made of high purity copper. When tightening the bolts, the extruded metal leads to a leak-tight seal. Mounting and positioning of the copper seal means manual work – the technician has to both fix the ring in the right position and fix the bolts until they hold the two flanges in place.

Even for a well trained technician, the gasket is likely to move and drop out when handling heavy components (pumps, evaporation devices, sections of the vacuum system, etc.). This means a waste of time and money – the damaged copper gasket can't be reused.

The new positioning device eliminates the need for this tedious and rather complicated positioning of the sealing ring by hand. Thus, the technician has no further need to take care of the seal while tightening the bolts of the two CF flanges.

The positioning two-part device (shown in blue color in the pictures) secures the copper seal in the right position. Later on, the positioning device can be removed and reused. The CF flange connections remain in their due positions, the technician can finish his task by firmly tightening the bolts.

### Advantages and Innovations

Until now, the tricky handling of the copper gaskets in the sealing process of CF flanges led to high gasket losses. With a piece price of around 30 Euro and additional time losses for the

replacement of the gasket, this means high economic losses.

The new development is reusable, avoids copper gasket losses and means cost and time savings in the mounting process.

## Stage of Development

Available for demonstration

## IPR Status

Patent(s) applied for but not yet granted

## Profile Origin

Private (in-house) research

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## Keywords

### Technology

02002008	Joining (soldering, welding, sticking)
02006006	Construction engineering (design, simulation)
03003	Apparatus Engineering

### Market

08003001	Machine tools, other metal working equipment (excl. numeric control)
08003007	Other industrial equipment and machinery
09004008	Other manufacturing (not elsewhere classified)

### NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering
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**Open for EOI :**    **Yes**

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## Partner Sought

### Type and Role of Partner Sought

- Type of partner sought: Industrial Partner

- Specific area of activity of the partner: Manufacturer of ultra-high-vacuum components, like pumps and evaporation devices.

- Task to be performed by the partner sought: Implementation of the new technology into the existing production line. Nonexclusive licenses are also negotiable.

## **Type and Size of Partner Sought**

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

## **Type of Partnership Considered**

License agreement

## Technology Offer

# Nano-flaky oil-sorbent on the base of thermally expanded graphite (TEG)

## Summary

*A Ukrainian research institute offers the nano-flaky oil-sorbent (NFOS) with high absorption capacity based on thermally expanded graphite for absorbing and liquidation of accidental spills of organic liquids from water surfaces and sand with a high degree of purification. The partners may be: enterprises manufacturing equipment for the production of NFOS; organizations involved in liquidation of emergency situations. The aim is the conclusion of License agreement or Joint venture agreement.*

<b>Creation Date</b>	13 November 2015
<b>Expiration Date</b>	28 November 2016
<b>Reference</b>	TOUA20151113001

## Details

### Description

One of the most effective and promising methods of purification of water surface and sand from oil spills and oil products, liquid toxic substances, organic fluids is the absorption (adsorption) of spilled liquid and subsequent collection of saturated sorbent, the separation from it of adsorbed fluid and utilization or regeneration of spent sorbent.

In this respect, the most promising is the use as an absorbent of the NFOS substance on the basis of thermoexpanded graphite (TEG), which is a special modification of the graphite obtained by multi-stage thermo-chemical processing of natural crystalline graphite.

This material is characterized by very low bulk density (2 - 5 kg/m<sup>3</sup>) and high absorption capacity for oil products and other organic liquids. One gram of this substance can absorb 50 – 60 g of oil.

The absorber is made in 3 versions:

- The absorbent powder which has a bulk density 2.5 kg/m<sup>3</sup>, an absorption capacity of 40...50 kg oil per 1 kg of absorbent.
- Preformed absorber is a tablet of different shapes, with density of 30...50 kg/m<sup>3</sup> and an absorption capacity of 5...10 kg oil per 1 kg of absorbent.
- Absorbent pads – flat bags from oil resistant material, filled with a powder absorbent, the absorption capacity of 20...30 kg per 1 kg of absorbent.

The absorbent is applied to the spillage and quickly absorbs the pollutant and holds it itself. The stain of the spill is eliminated through the collection of the absorber with the absorbed liquid, the degree of purity, for example, polluted by oil or oil products in the water area reaches to 99.99%. Up to 70-80% of the spilled oil could be separated from the NFOS and used after appropriate purification. The spent (reacted) absorbent is regenerated in special furnaces, and the remains of mineral oil are used as additional fuel in the regeneration process. The regenerated absorbent can be reused, the number of cycles "saturation-extraction-regeneration" can reach 10...15, which greatly reduces the cost of spill response and does not require the creation of

large reserves of the NFOS.

The TEG production can be done on stationary plants and, if necessary, at the area of accidents elimination by using autonomous mobile or portable devices. Mobile units are mounted on a car chassis and delivered to the accident site to produce up to 15 kg/h of powder sorbent directly on the liquidation place. The size of mobile unit – 6x2.5x2 m.

Analogues of the mobile and portable installations are absent on market.

The institute has experience in the use of a pilot plant for TEG production while accident elimination of eight tones spill of gasoline in the waters of the Dnieper river (Ukraine), through sorbent production, collection and subsequent separation and use.

The institute has experience in the use of a pilot unit for the TEG production while accident elimination of eight tones spill of gasoline in the waters of the Dnieper river (Ukraine) by the way of sorbent production, collection and subsequent separation and use of the gasoline.

The institute is interested in cooperation with enterprises of manufacturing of equipment for the production of the NFOS and with organizations involved in liquidation of emergency situations from European and other countries. Possible forms of cooperation are License agreement or Joint venture agreement.

## Advantages and Innovations

Advantages of the NFOS usage in comparison with traditional absorbents of organic liquids (peat, sawdust, husk, polystyrene foam, etc.):

- High sorption capacity (45-65 kg / kg);
- High cleaning degree (up to 99.9%) depending on the properties of the surface;
- Time of absorption is 10-20 s;
- No harmful effects on the environment, particularly on aquatic flora and fauna;
- Buoyancy in a saturated condition;
- The possibility of desorption of the absorbed liquid with subsequent its use;
- Ability of thermochemical regeneration of the NFOS for further use.

Unlike of existing analogues, there is a possibility to use the TEG in the form of an aqueous suspension which allowing to:

- Eliminate the loss of the sorbent when it is applied to the water surface;
- Refuse a preliminary processing of dry powder sorbent and use of additional and auxiliary materials (binder and reinforcing elements);
- Use water for preparing a suspension directly from a contaminated water courses and to carry out preparation of the suspension directly on the site of an accidental spillage;
- Simplify the technology of preparation, application of suspension and collecting the saturated sorbent.

## Stage of Development

Available for demonstration

## Comments Regarding Stage of Development

The design documentation is already developed. Pilot-industrial unit for production of the NFOS with capacity 35 kg / h (7 m<sup>3</sup>/h) is created.

## IPR Status

Secret Know-how, Patents granted

## Comment Regarding IPR status

Technical solutions for the production, regeneration, pre-treatment and application of the NFOS are protected by 13 patents of the Ukraine.

## Profile Origin

National R&D programme

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## Keywords

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### Technology

03001001	Cleaning Technology
03004006	Organic Substances
05004003	Adsorption
10002011	Soil and Groundwater Pollution

### Market

08001019	Speciality/performance chemicals
08004004	Other pollution and recycling related
09004001	Business products and supplies

### NACE

C.20.1.3	Manufacture of other inorganic basic chemicals
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**Open for EOI :** **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

Type and Role of Partner Sought: investors, enterprises producing industrial equipment, businesses and organizations involved in liquidation of emergency situations related to spills of organic liquids.

Area of activity: creation of a production, development of elements and components for the chemical, oil and gas industry, environmental protection and liquidation of consequences of emergency situations.

The tasks that are assigned to the partner: manufacture of industrial samples of the equipment for the production of nanosorbent on the basis of expanded graphite, desorption of the absorbed fluids and thermochemical regeneration of waste the NFOS on design documentation provided by the institute.

### Type and Size of Partner Sought

SME 11-50, SME 51-250

### Type of Partnership Considered

License agreement  
Joint venture agreement

## Technology Offer

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# Device for cleaning heat transfer surfaces of boilers of small and medium thermal outputs

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## Summary

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*Czech university developed technology of cleaning mechanism for boilers of small thermal outputs. The university is looking for industrial and business partners who would be able to produce boilers of small and medium thermal outputs suitable for central heating of households and public buildings. The university offers license agreement.*

<b>Creation Date</b>	06 November 2015
<b>Expiration Date</b>	24 November 2016
<b>Reference</b>	TOCZ20151106001

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## Details

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### Description

The technology is designed for cleaning interior heat transfer surfaces of domestic boilers by pulsed blowing using compressed air. The device requires professional installation and regular service; however any person can operate the device easily without any qualification or having pre-training. Electricity is necessary for compressing the air and proper production of pulses in the shockwave generator.

The purpose of the invention is to enable comfortable and especially regular removal of solid deposits on heat transfer surface of boilers with low and medium heat outputs by pneumatic pulses generated in a shockwave generator. The shockwave generator is a source of pressurized gaseous medium that is through one or more nozzles directed to the heat transfer surface of the boiler. The nozzles are installed inside the boiler, while the shockwave generator is located outside the boiler. Both parts are connected by a pressure hose. Dynamic stream of gaseous medium leads to erosion of deposits on the surface; the frequency of pulses is determined by opening manual or automatic valve.

The university is looking for industrial and business partners who would be able to produce and distribute the device and offers license agreement.

### Advantages and Innovations

Keeping heat transfer surfaces of domestic boilers in relatively clean state requires active intervention by the operator, who, by mechanical means such as hand tools, removes suspended sediment. The operator is often not aware of the need for such measure, leaving the boiler without maintenance for a long time. This eventually leads to continuous deterioration of performance and emission parameters of the boiler due to the decreasing intensity of the heat transfer from the flue gas into the water heating circuit. Higher temperature of not sufficiently cooled down flue gas results in increase of heat losses and wasting of usable heat. The proposed technical solution compared to the current situation offers a convenient way to clean heat transfer surfaces without the need for direct access. This allows implementing the cleaning

process in full operation of the boiler. Another advantage is the efficiency of cleaning the surface in inaccessible parts of the boiler and the possibility of regular cleaning at periodic intervals.

## Stage of Development

Prototype available for demonstration

## Comments Regarding Stage of Development

A prototype has been produced to demonstrate that newly-designed device can meet the design goals, further validate and optimize its performance.

## IPR Status

Other

## Comment Regarding IPR status

Utility model granted in December 2014.  
Verified technology.

## Profile Origin

National R&D programme

## Keywords

### Technology

02007009	Materials Handling Technology (solids, fluids, gases)
03001001	Cleaning Technology
10001003	Fire Safety Technology
10002002	Outdoor Air Pollution/Treatment
10002013	Clean Production / Green Technologies

### Market

07006	Other Consumer Related (not elsewhere classified)
08003007	Other industrial equipment and machinery
09004008	Other manufacturing (not elsewhere classified)

### NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering
P.85.4.1	Post-secondary non-tertiary education

**Open for EOI :** **Yes**

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## Partner Sought

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

An industrial partner who is specialised in business related to manufacturing of boilers of small and medium thermal outputs suitable for central heating of households and public buildings. The partner should be capable of performing mass production of the proposed condensing boiler. The university offers cooperation based on license agreement.

### **Type and Size of Partner Sought**

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

### **Type of Partnership Considered**

License agreement

## Technology Offer

### High temperature dust removal equipment

#### Summary

*Czech university with rich experience in energy production, developed equipment that is a part of gasification technology for electric and heat production. It is usable everywhere for dedusting of gaseous media with high temperature. The university is looking for industrial and business partners who would be able to produce a filter unit – a device for trapping solid particles of different types of air. Cooperation offered on the basis of license, manufacturing and/or technical agreement.*

**Creation Date** 06 November 2015  
**Expiration Date** 24 November 2016  
**Reference** TOCZ20151106002

#### Details

##### Description

The developed filter unit is able to trap solid particles of different types of air (even with aggressive components) at high temperatures. In that the filter elements are made of special fibers have a high thermal and chemical stability. Thanks to pulse-jet removing system of separated particles from the surface of filter element unit is designed for continuous operation even in very specific conditions of industrial applications.

A Czech university offer cooperation based on license agreement, manufacturing agreement and/or technical cooperation agreement.

##### Advantages and Innovations

The device is capable of operating at pressures close to atmospheric pressure (lower pressure loss due to the filter elements). At present, it is primarily designed for applications in decentralized energy and in smaller workplaces where it is necessary to remove the dust from smaller volumes of air at high temperatures. Due to the properties of filter elements it is also possible to filter toxic, explosive or aggressive gases or gaseous mixtures.

##### Stage of Development

Prototype available for demonstration

##### Comments Regarding Stage of Development

Now the device is in the last part of the testing and verifying.

##### IPR Status

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

##### Comment Regarding IPR status

Device is waiting for confirmation of registered design.

## Profile Origin

National R&D programme

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## Keywords

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### Technology

03001001                      Cleaning Technology  
10002007                      Environmental Engineering / Technology

### Market

08004001                      Air filters and air purification and monitoring equipment  
08004004                      Other pollution and recycling related

### NACE

P.85.4.1                      Post-secondary non-tertiary education

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**Open for EOI :**    **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

Manufacturer of energy or chemical devices, fitter's workshop (locksmithery). Equipment manufacturing under license for sale to customers. Cooperation offered: license agreement, manufacturing agreement and/or technical cooperation agreement.

### Type and Size of Partner Sought

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

### Type of Partnership Considered

License agreement  
Manufacturing agreement  
Technical cooperation agreement

## Technology Request

### Intuitive and controlled dosing of liquids

#### Summary

*A Belgian multinational active in consumer goods looks for intuitive and controlled dosing of liquids which should have comparable sizes against a normal cap and can be integrated in the company's pack design language. Industrial partners able to provide this kind of dosing solutions are sought for technical cooperation or licence agreement with the large account.*

**Creation Date** 23 November 2015  
**Expiration Date** 29 November 2016  
**Reference** TRBE20151123001

#### Details

##### Description

A Belgian multinational based in Brussels and active in consumer goods wishes to increase customers experience by offering them superior products which provide:

- a first impression of delight on the shelf or point of purchase and
- at the second impression when using the liquid product.

This company has 1 ½ century of history in the fast moving consumer goods markets and owns several brands known at global level.

Currently there are many dosing systems in the market, including pumps, trigger sprays, measuring caps, dosing devices etc. There is no single solution that fits for all. The company is looking for different solutions that meet consumer and business needs.

Extensive research has taught the company that the following elements are delighting the consumer:

1. The consumer feels fully in control when using / dosing the product.
  - Surprisingly obvious, the system is intuitive to dose the correct amount for the job to be done
  - Mess free and easy to handle
  - Flexible or adjustable to dose different volumes for varying jobs
  - Accurate and in control to avoid overdosing
2. No waste, use the product till the last drop
  - No product is left in the package
  - Easy to empty
  - Minimal packaging waste (no overdesign)

Thanks to the necessary analysis carried out on potential solutions, this company is already aware of the following, concerning different solutions for different amounts of dosing:

- Solutions 1 - Large dosage systems: Consumers want to be aided on their dosage task while maintaining freedom to adjust the dose based on the job to be done. The company is looking for dosing systems for volumes in the range of 20-200ml.

- Solution 2 – Targeted dosing for direct application: Consumers want to use the product directly on the item to be cleaned (a surface, a sponge, a garment, in the hand or on the hair). The company is looking for dosing systems that enable a controlled application and or easy spreading of their products on the target items or surfaces, with 2-20ml dosage.

The pdf file related to this TR provides the range of typical dosages and viscosities for the company's products.

The company is then looking for collaboration with industrial partners able to provide these kinds of dosing solutions. The purpose would be setting up a long lasting cooperation (technical or licencing) allowing the large account to comply with its internal strategy and for the potential partner interact in a systematic way with the large account so as to have immediate access to forthcoming similar requests

## Technical Specification or Expertise Sought

The proposed systems should have comparable sizes against a normal cap and can be integrated in the company's pack design language; ideally systems should be ownable or exclusive to the company's fields of interest.

The proposed solutions have to take into account the following constraints:

- Hazardous or regulation banned material (e.g. PVC) are not in company's consideration
- Must comply with Toxics in Packaging regulations

As for the intellectual property position, the following has to be taken into account by the player proposing the potential solution:

- Ownership or exclusivity in fields of interest, but at a minimum, must have freedom to practice globally for the intended application.

## Stage of Development

Already on the market

## Comment Regarding IPR status

Company requests ownership or exclusivity in fields of interest, or at a minimum, company must have freedom to practice globally for the intended application.

## Keywords

### Technology

02005005	Plastic bags
02007014	Plastics, Polymers
03010	Household Goods & Appliances

### Market

07004008	Other consumer products
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08003007

Other industrial equipment and machinery

## NACE

C.20.4

Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations

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**Open for EOI :** **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

Type of Partner sought: SMEs or industry

Area of expertise : dosing systems

Role of Partner Sought: collaborate with the large account and provide the technical solution sought

### Type and Size of Partner Sought

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

### Type of Partnership Considered

License agreement

Technical cooperation agreement

## Technology Request

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# Dutch company is looking for partners for technical cooperation for upscaling an industrial straw pressing machine.

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### Summary

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*A Dutch SME, founded in 2013, developed a machine for the production of precision pressed straw blocks, used for building houses. This machine enables an efficient process for production of various shapes of pressed straw blocks. The SME is looking for technical cooperation with an industrial production partner that can upgrade and upscale this machine from a well performing prototype into a qualified series production.*

<b>Creation Date</b>	19 June 2015
<b>Expiration Date</b>	27 November 2016
<b>Reference</b>	TRNL20150609001

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### Details

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#### Description

A Dutch SME developed and built advanced, high-end machines for modern straw buildingblocks methods, unique within the European Union. They are electrically driven (three-phase electric power) machines, which they rent out and sell. The machines can produce various straw blocks with a minimum of time-consuming handling. The machines comply with the guidelines of machine building and safety.

From the pressed straw blocks building elements are assembled. Building components made of wood or other material are located on the outside or in the middle of the element, depending on the application. The machine makes elements for corner solutions, wall, floor and roof in various sizes, with a standard thickness of 40 cm. So the entire building has a shell of 40 cm thick pressed straw! The outside of all of the strawblock elements is equipped as standard with a loam soil layer with a minimum thickness of 1 cm with which it adheres to the standards with respect to fire retardancy. This allows the elements to be free of dust, and also some protection from the immediate penetration of moisture. The blocks and elements are made in a very efficient manner and assembled into a complete building (structural work). This allows to achieve high quality and cost effective buildings.

The SME is looking for technical cooperation with an industrial production partner that can upgrade and upscale this machine from a well performing prototype into a qualified series production. The Partner must have experience in the fields of mechanical-, electrical and agricultural technologies.

#### Technical Specification or Expertise Sought

- industrial production and engineering and design capacity of e.g. power tools and agricultural machines
- preferably with a distribution network into the agricultural sector and/or the building sector

## Stage of Development

Available for demonstration

## Comments Regarding Stage of Development

For use on single project scale some machines are available.

## IPR Status

Design Rights, Patents granted

## Comment Regarding IPR status

For the current pressing machine a patent is granted in The Netherlands.  
For the shape of the straw blocks model rights (Design rights) are applicable for all Europe Countries.

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## Keywords

### Technology

02002010	Machining (turning, drilling, moulding, planing, cutting)
02006002	Construction methods and equipment
03003	Apparatus Engineering

### Market

08003007	Other industrial equipment and machinery
09005	Agriculture, Forestry, Fishing, Animal Husbandry & Related Products
09007003	Distribution of building products and systems

### NACE

C.28.3.0	Manufacture of agricultural and forestry machinery
F.43.9.9	Other specialised construction activities n.e.c.

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**Open for EOI :**    **Yes**

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## Partner Sought

**Type and Role of Partner Sought**

The partner sought needs to have experience in series and mass production of machines and power tools, thus giving added value in the further product development of the machine that is now used on a smaller scale project basis. The Dutch SME company is interested in a technological cooperation agreement with a company that is seriously interested to develop the prototype to a market ready product.

**Type and Size of Partner Sought**

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

**Type of Partnership Considered**

Technical cooperation agreement

# Textil y Calzado

## Technology Offer

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# Method to measure speed and length of a running thread in textile production processes

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## Summary

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*A German university of applied sciences developed an optical method that monitors the speed and length of a running yarn during the ongoing production process. The use of an optical measuring method offers high precision without stressing or even damaging the thread. This method is inexpensive and easy to maintain. The university offers licenses to companies active in the textile industry or the possibility of a technical cooperation in order to advance the technology.*

<b>Creation Date</b>	16 November 2015
<b>Expiration Date</b>	24 November 2016
<b>Reference</b>	TODE20151116001

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## Details

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### Description

A German university of applied sciences developed a non-contact measuring method with which the speed and the length of a running thread can be measured. For this purpose, a laser beam is split by prism optics into two parallel beams. Both beams pass through a measurement volume, which will also be passed through by the thread. Only the first beam is directed to the thread, the second beam serves as a reference. Due to the scattering resulting from the thread on the spherical waves, a Doppler signal arises. This signal is measured by means of an optical detector of the first beam. In this way the speed and length of the running yarn can be measured. Furthermore, by reducing the intensity of the first beam by the thread, it is possible to determine the thickness of the yarn.

Due to the use of an optical measuring method velocity and length can be measured with high precision, without stressing the thread itself or even damaging it. The measurement is carried out continuously and it is inexpensive and easy to maintain.

The invention finds particular application in the textile industry for the monitoring of ongoing production processes. Running processes can be accurately monitored with this technology while at the same time waste and defects in the production can be significantly reduced.

The University offers companies active in the textile industry the possibility of licensing the technology or a technical cooperation in order to advance/adapt the technology.

### Advantages and Innovations

- Cost-efficient
- Simple set-up
- Easy to maintain
- No stress or damage to thread occurs

- Continuous measurement

Compared to conventional methods:

- More precise measurement of speed and length of a running yarn
- Measuring of the diameter of the thread is also possible
- More reduction of defects and wastage

## IPR Status

Patents granted

## Comment Regarding IPR status

For this invention patents were granted in several European and other countries.

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## Keywords

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### Technology

03005	Textiles Technology
03005008	Weaving related to Textiles Technology
09001007	Optical Technology related to measurements

### Market

03007002	Other measuring devices
08002002	Industrial measurement and sensing equipment
08003005	Other industrial machinery for textile, paper & other industries
09004003	Textiles (synthetic and natural)

### NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering
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**Open for EOI :**    **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

The University offers companies active in the textile industry the possibility of licensing or a technical cooperation in order to advance/adapt the technology to their processes and requirements.

## Type of Partnership Considered

License agreement

Technical cooperation agreement

## Technology Offer

# Magnetic weft insertion in weaving machines

## Summary

*A German university offers a magnetic weft insertion technology that represents an energy-efficient alternative to the standard weft insertion methods in weaving processes. Furthermore the technology enables to process any type of yarn or fiber at high production velocity. A prototype is available. Licensees from textile industry are sought.*

**Creation Date** 11 November 2015  
**Expiration Date** 18 November 2016  
**Reference** TODE20151111001

## Details

### Description

Weft insertion in weaving can presently be performed by shuttle, projectile, gripper, air jet or water jet processes.

Air jet and water jet weaving grant the highest productivity of the presently applied weft insertion methods. Unfortunately, with these methods it is not possible to process all types of fiber material. A further drawback is that energy consumption increases due to the necessity of preparation of compressed air (air jet) as well as due to the drying process of the wet fabric (water jet).

Gripper weaving enables the processing of any yarn material, but it does not reach the high productivity of jet weaving, due to the inertia of the moving machine elements. Projectile weaving on the other hand grants the lowest energy consumption at medium productivity. However no sensitive yarn can be processed with this method.

A German university offers a new technology with significant advantages compared to the state of the art:

The objective of the university's invention was to develop a weaving method of weft insertion that combines the advantages of the commonly used methods whilst avoiding their deficits. This will be achieved with a magnetic projectile that is used for the guided transport of the yarn. The projectile is moved through the open shed by magnets, which are mounted on a belt. The belt is located outside of the shed. Multiple projectiles can be used simultaneously to ensure a high efficiency of the weft insertion. No operating roles are necessary at the wingback position.

The fact that production velocities of yarns with challenging processing characteristics can be similar to the ones of standard yarns is certainly an advantage. In magnetic weft insertion no source of compressed air is necessary. Thus a reduction of energy consumption of about 60 % compared to a conventional air jet weaving machine is to be achieved.

The German university offers licensing options to partners from the textile industry interested in

introducing the new process and in implementing the technology.

## Advantages and Innovations

- High productivity for any material (Aim: 2000 m/min)
- Lower energy consumption than conventional methods (Aim: 4 kWh)
- Higher flexibility than conventional methods (Aim: any yarn material)
- Diverse projectile motion profiles are possible
- Alternating reciprocating motion is feasible
- No gaps on the guiding surface

## IPR Status

Patent(s) applied for but not yet granted

## Comment Regarding IPR status

A German as well as a PCT-Patent application are pending.

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## Keywords

### Technology

03005	Textiles Technology
03005007	Textile fibres
03005008	Weaving related to Textiles Technology
03005009	Woven technical textiles for industrial applications

### Market

08003005	Other industrial machinery for textile, paper & other industries
09004003	Textiles (synthetic and natural)

### NACE

M.72.1	Research and experimental development on natural sciences and engineering
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**Open for EOI :**    **Yes**

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## Partner Sought

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

Type of partner sought: Textile industry with weaving activities.

Role of partner: Be interested in optimizing production processes by introducing new process via license agreements.

## **Type of Partnership Considered**

License agreement

# Medidas y Normas

## Technology Offer

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### Linear hydraulic actuator with integrated control valves

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#### Summary

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*A Czech university developed a prototype of integrated linear hydraulic actuator. The university is looking for industrial partners who would be able to produce it. The university is looking for manufacturers of hydraulic controlled drives, manufacturers of machine tools and presses or manufacturers of test equipment for testing of springs, shock absorbers, etc. Cooperation is possible based on license agreement.*

<b>Creation Date</b>	11 November 2015
<b>Last Update</b>	26 November 2015
<b>Expiration Date</b>	26 November 2016
<b>Reference</b>	TOCZ20151111004

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#### Details

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##### Description

The linear actuator with integrated hydraulic control valves provides a compact hydraulic drive consisting of a differential hydraulic cylinder with sensors of controlled variables, control block with separate built-in proportional control valves enabling continuous control of kinetic variables and embedded control system with the control program.

The integrated linear hydraulic actuator enables:

- Control of the piston rod motion in an open regulatory circuit;
- Control of the piston rod position – realization of positional servomechanisms;
- Control of the piston rod speed – realization of speed servomechanisms;
- Force control in the piston rod axis – realization of force servomechanisms;
- Combination of the above methods of control during the work cycle.

The integrated linear hydraulic actuator offers:

- Easy integration of the drive and autonomic control system into hierarchical control systems using industrial bus bars;
- Variability of drive functions enabling a choice from a higher control level;
- Transfer of the values of controlled variables to the higher control level.

Czech University offers Licence agreement cooperation.

##### Advantages and Innovations

The integrated linear hydraulic actuator is characterized by:

- Compact design using built-in valves and original way of solution to the control block;
- Less weight and dimensions of the entire hydraulic circuit;
- Control variability via control valves in the bridge circuit;
- Option to select the control algorithm according to user applications;

- High-quality control compensating characteristics of the differential cylinder;
- Lower costs compared to traditional solutions.

## Stage of Development

Prototype available for demonstration

## IPR Status

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

## Profile Origin

National R&D programme

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## Keywords

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### Technology

02002005	Forming (rolling, forging, pressing, drawing)
02002009	Machine Tools
02002010	Machining (turning, drilling, moulding, planing, cutting)
02002013	Moulding, injection moulding, sintering
09001005	Mechanical Technology related to measurements

### Market

08003001	Machine tools, other metal working equipment (excl. numeric control)
08003007	Other industrial equipment and machinery

### NACE

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

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

Open for EOI : **Yes**

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## Dissemination

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### Send to Sector Group

Automotive, Transport and Logistics

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## Client

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### Type and Size of Organisation Behind the Profile

University

### Year Established

1849

### Turnover

50 - 100M

### Already Engaged in Trans-National Cooperation

Yes

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## Partner Sought

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### Type and Role of Partner Sought

The partner sought should be from the area of hydraulic system production or a manufacturer of machines with hydraulic drives (presses or machine tools, etc.), manufacturers of machine tools and presses, manufacturers of test equipment for testing of springs, shock absorbers, etc. The subject of the license will be a description of the system, hydraulic scheme and block diagram of electronics, algorithm descriptions and sample program in CodeSys environment. Licensee will make adaptation to a specific hardware structure.

### Type and Size of Partner Sought

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

### Type of Partnership Considered

License agreement

## Technology Offer

### Technology that identifies baby's reason for crying.

#### Summary

*An Spanish IT SME has developed a technology able to interpret and communicate the reason for the baby crying, regardless of culture and sex. It is looking for financial agreement, commercial agreement with technical assistance or license agreement.*

<b>Creation Date</b>	12 November 2015
<b>Last Update</b>	27 November 2015
<b>Expiration Date</b>	27 November 2016
<b>Reference</b>	TOES20151110002

#### Details

##### Description

Spanish SME in the field of sensor devices offers its technology which consists of an effective translator for baby crying, helping parents/baby care-givers to pay early and effective attention which can soothe a baby crying.

On average, a baby cries about three hours daily, causing frustration and worry to parents and caregivers. By using the technology offered it is now possible to identify the reasons why the baby is crying and recommend guidelines for responding in a more rapid and effective manner. In addition, research suggests that a baby who feels well attended will develop more self-confidence and feel better towards his/her care-givers, implying better emotional development. Studies have found a significant relationship between this improved emotional development and a lifelong increase in cognitive capacity.

Regarding the state of the art, there are no other companies to recognize the reason for crying in less than 1 minute; their devices also have to be located at an specific distance from the baby; and their results doesnt have as accurate results for different human cultures and sex differences.

Form more details, the technology helps to interpret infant crying and to respond adequately and rapidly to his/her needs.

The operation of the technology is based on the analysis of the crying sounds. For correct operation background noise should be kept at a minimum. This is the general procedure for using the product:

- Make sure you do not block the microphone and place it at less than 1 foot from the baby.
- To start translation, place the device near the baby when he/she cries and touch the appropriate button
- In less than three seconds (ten seconds in iPhone) an output will be given with the translation of the baby's crying, relating to one of a number of states: hunger, sleep, discomfort, stress o simply bored.
- If the baby is bored, uncomfortable or sleepy, it is possible to play lullabies or the heart beating

sound with the appropriate buttons.

Regarding the cooperation requested:

- Financial agreement, through investors, for further develop a marketing and exploitation strategy.
- Or licence agreement, in order to another partner exploit the technology within their own brand.
- Or commercial agreement with technical assistance, for the same as the latest one, and for further helping improving / adapting the product.

## Advantages and Innovations

The system is already praised by different pediatricians and professionals in the sector.

Innovations:

- In 3 seconds it will give feedback on the reason for crying: hungry, sleepy, annoyed, stressed or bored.
- Translation of baby crying with no distinction of culture or sex.

Main advantages:

- A simple and lightweight, completely safe device.
- It is designed so that it is possible to handle it with one hand and attend the baby with the other.

## Stage of Development

Already on the market

## IPR Status

Patents granted, Trade Marks

## Profile Origin

Private (in-house) research

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## Keywords

### Technology

01003005	Computer Hardware
01003006	Computer Software
09001001	Acoustic Technology related to measurements
09001004	Electrical Technology related to measurements
09001009	Sensor Technology related to measurements

### Market

03004003	Other electronics related equipment
05001001	Diagnostic services
05007004	Monitoring equipment
07004002	Health and beauty aids

07004008

Other consumer products

## NACE

J.62.0.9

Other information technology and computer service activities

M.72.1.1

Research and experimental development on biotechnology

Q.86.9.0

Other human health activities

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## Network Contact

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :** **Yes**

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## Dissemination

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### Send to Sector Group

ICT Industry and Services

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME <= 10

### Year Established

2004

### Turnover

<1M

### Already Engaged in Trans-National Cooperation

Yes

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## Partner Sought

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### Type and Role of Partner Sought

Following partnerships are sought:

- Financial agreement with the role of investors for further marketing and exploitation of the product.
- License agreement, in order to sell the technology/product within a private company well positioned brand.
- Commercial agreement with technical assistance, in order to sell and adapted technology/product within a private company well positioned brand.

### 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  
Financial agreement  
Commercial agreement with technical assistance

## Technology Offer

# Technology for identification of the mood of the persons in 3 seconds.

## Summary

*An Spanish IT SME has developed a technology able to interpret and communicate the reason for the baby crying, regardless of culture and sex. It is looking for joint venture or license agreement.*

<b>Creation Date</b>	12 November 2015
<b>Last Update</b>	28 November 2015
<b>Expiration Date</b>	28 November 2016
<b>Reference</b>	TOES20151112002

## Details

### Description

Spanish SME in the field of sensor devices offers its technology which consists of an effective analyzer of the mood of the person, its emotional state and its needs through analysis of their voice, all within three seconds,

The company has developed in its portfolio a sound analysis system that recognizes and interprets sounds, repetitive and limited in time, of people, animals and things.

The sound analysis system quickly identifies people's moods regardless of culture or language. This technology allows all kind of natural speaking languages to be translated and deciphered into a series of standard emotions. The system is able to read any type of sound that is distinctive, repetitive and recognizable.

The SME will work on the identification of more emotions and moods of people. The first results of the identification of emotions have been a success.

This innovative technology will open up a complete new field of consumer electronics, eliminating the cost constraint associated with working with DSP (Digital Signal Processing) applications.

The company is looking for other private companies interested in the uptake of the technology (license agreement) or to integrate/adapt the technology within an existing product (joint venture agreement).

### Advantages and Innovations

Advantages:

- It can be incorporated in voice devices including mobile phones
- The voice is not recorded or stored in real time

## Innovations:

- Identifies the mood by voice.
- It works behind rational thought.
- Only needed three seconds of speech
- Independent of origin and language
- Recognizes the evolving state of mind
- It is a universal reader of the hypothalamus

## Stage of Development

Available for demonstration

## IPR Status

Patents granted, Other

## Profile Origin

Private (in-house) research

## Keywords

### Technology

01003005	Computer Hardware
01003006	Computer Software
09001001	Acoustic Technology related to measurements
09001004	Electrical Technology related to measurements
09001009	Sensor Technology related to measurements

### Market

03	OTHER ELECTRONICS RELATED
05001001	Diagnostic services
05007004	Monitoring equipment
07004008	Other consumer products

### NACE

J.62.0.9	Other information technology and computer service activities
M.72.1.1	Research and experimental development on biotechnology

## Network Contact

### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

**Phone Number**

34 955 00 74 45

**Email**

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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**Dissemination****Send to Sector Group**

ICT Industry and Services

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

Industry SME <= 10

**Year Established**

2004

**Turnover**

<1M

**Already Engaged in Trans-National Cooperation**

Yes

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

The type of partner is a private technology company, willing to integrate/ adapt the technology within their own specific product already in the market, or software developers interested in license the voice recognition engine in order to create new applications or products.

**Type and Size of Partner Sought**

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

**Type of Partnership Considered**

License agreement  
Joint venture agreement

## Technology Offer

# Method to measure speed and length of a running thread in textile production processes

## Summary

*A German university of applied sciences developed an optical method that monitors the speed and length of a running yarn during the ongoing production process. The use of an optical measuring method offers high precision without stressing or even damaging the thread. This method is inexpensive and easy to maintain. The university offers licenses to companies active in the textile industry or the possibility of a technical cooperation in order to advance the technology.*

<b>Creation Date</b>	16 November 2015
<b>Last Update</b>	24 November 2015
<b>Expiration Date</b>	24 November 2016
<b>Reference</b>	TODE20151116001

## Details

### Description

A German university of applied sciences developed a non-contact measuring method with which the speed and the length of a running thread can be measured. For this purpose, a laser beam is split by prism optics into two parallel beams. Both beams pass through a measurement volume, which will also be passed through by the thread. Only the first beam is directed to the thread, the second beam serves as a reference. Due to the scattering resulting from the thread on the spherical waves, a Doppler signal arises. This signal is measured by means of an optical detector of the first beam. In this way the speed and length of the running yarn can be measured. Furthermore, by reducing the intensity of the first beam by the thread, it is possible to determine the thickness of the yarn.

Due to the use of an optical measuring method velocity and length can be measured with high precision, without stressing the thread itself or even damaging it. The measurement is carried out continuously and it is inexpensive and easy to maintain.

The invention finds particular application in the textile industry for the monitoring of ongoing production processes. Running processes can be accurately monitored with this technology while at the same time waste and defects in the production can be significantly reduced.

The University offers companies active in the textile industry the possibility of licensing the technology or a technical cooperation in order to advance/adapt the technology.

### Advantages and Innovations

- Cost-efficient
- Simple set-up
- Easy to maintain

- No stress or damage to thread occurs
- Continuous measurement

Compared to conventional methods:

- More precise measurement of speed and length of a running yarn
- Measuring of the diameter of the thread is also possible
- More reduction of defects and wastage

## Stage of Development

Prototype available for demonstration

## IPR Status

Patents granted

## Profile Origin

Private (in-house) research

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## Keywords

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### Technology

03005	Textiles Technology
03005008	Weaving related to Textiles Technology
09001007	Optical Technology related to measurements

### Market

03007002	Other measuring devices
08002002	Industrial measurement and sensing equipment
08003005	Other industrial machinery for textile, paper & other industries
09004003	Textiles (synthetic and natural)

### NACE

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

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

## Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**   **Yes**

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## Client

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### Type and Size of Organisation Behind the Profile

University

### Year Established

1971

### Already Engaged in Trans-National Cooperation

Yes

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## Partner Sought

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### Type and Role of Partner Sought

The University offers companies active in the textile industry the possibility of licensing or a technical cooperation in order to advance/adapt the technology to their processes and requirements.

### Type of Partnership Considered

License agreement  
Technical cooperation agreement

## Technology Offer

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# Advanced autonomous growth control system for maximising plant health in controlled environment agriculture

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## Summary

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*A UK SME has developed a state-of-the-art hardware and complementary IT solution that enables the optimisation of plant health through the precision monitoring and autonomous control of growth environments. The SME is searching for European partners with whom they can form mutually beneficial technical cooperation agreements for further development and supply of their advanced controlled environment agricultural monitoring and control systems.*

<b>Creation Date</b>	09 November 2015
<b>Last Update</b>	17 November 2015
<b>Expiration Date</b>	16 November 2016
<b>Reference</b>	TOUK20151109001

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## Details

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### Description

The system senses parameters traditionally associated with plant health such as temperature, humidity, pH, fluid / soil electrical conductivity as well as new properties such as light spectral intensity and in-line chemical analysis of mineral nutrients in plant-feed systems. This enables previously unachievable levels of understanding of the effects of irrigation, feed and environmental parameters on crop yield to be obtained and for this information to be used to control the environments in which plants grow.

The system captures data from a variety of sensors, which is then stored in a cloud-storage system and made available to users either locally, using a touch-screen display at the growth-site, or remotely via a web-browser interface and secure user accounts.

Based upon the data gathered from a remote site, the system can modify control parameters such as mineral nutrient dosage, irrigation, ventilation and artificial lighting scheduling to levels optimised for the crop in question. This can be manual, where an experienced grower will take decisions regarding settings for a particular plant variety, or automatic, where irrigation, fertigation and environmental parameters are controlled using pre-defined algorithms or growth 'recipes' that are specific to a particular crop type. The latter enables the system to control growth in a fully autonomous way – limiting the possibility of human error in the crop nurturing process and reducing the costs associated with employing experienced personal to monitor crop health.

The system includes hardware to control irrigation, fertigation and environmental control equipment such as valves, pumps, flow-meters, blinds, vents and artificial illumination systems

such as fluorescent tubes and LED strips. Furthermore, the system has advanced power management functionality which makes it applicable for efficient mains or solar-powered operation – the latter enabling it to operate at remote locations where a fixed power source is not available.

The hardware and cloud-based data-management system has been field-tested in a number of commercial controlled environmental settings and has been shown to be a flexible, reliable and cost effective solution for the implantation of precision monitoring and control and maximisation of plant health in a variety of growth environments.

The company offers technical expertise to commercial partners in the optimisation of crop yield using high performance controlled environment agricultural solutions. The SME is searching for European partners with whom they can form mutually beneficial technical collaborations/agreements for further development and supply of their advanced controlled environment agricultural monitoring and control systems.

## Advantages and Innovations

Easy-to-use, scalable hardware and complementary cloud-based computing platform for monitoring and controlling the environments in which plants grow. The system enables growers to maximise crop yield, reduce costs and make better use of natural resources through the provision of accurate information regarding growth conditions and autonomous control of irrigation, fertigation, lighting and ventilation.

The hardware monitors not only a range of properties traditionally associated with plant health such as soil moisture, relative humidity and temperature, but also newly identified parameters which effect crop performance such as variations in light spectral intensity and chemical concentrations in closed-loop fertigation systems. The range of information provided allows for previously unachievable levels of understanding and precision in plant-care to be obtained.

The system provides automated control of growth environments using algorithms (or 'recipes') optimised for particular environmental conditions and plant types. Measurement data from a growth site is fed into a recipe that is appropriate for the crop in question, which in turn is used by the systems' controller to ensure that irrigation, fertigation, lighting and ventilation are maintained at levels appropriate for optimum crop yield. This reduces the possibility of human error when taking decisions regarding plant care and the capability for remote, automated operation allows growers to cut labour costs by reducing the need for regular or permanent on-site monitoring by experienced personnel.

The systems' features open up new commercial opportunities for maximising plant health and crop yield in traditional agricultural environments such as poly-tunnels and greenhouses as well as contemporary horticultural approaches such as vertical farms, urban landscaping, living-walls and green-roofs through the development and sale of equipment, knowledge, and associated horticultural support services.

## Stage of Development

Already on the market

## IPR Status

Secret Know-how, Design Rights, Trade Marks

## Profile Origin

Private (in-house) research

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## Keywords

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### Technology

07001	Agriculture
07001005	Horticulture
07001007	Precision agriculture
09001009	Sensor Technology related to measurements
10002013	Clean Production / Green Technologies

### Market

02007017	Expert systems
03001006	Controllers
08002003	Process control equipment and systems
09005	Agriculture, Forestry, Fishing, Animal Husbandry & Related Products

### NACE

A.01.6.1	Support activities for crop production
A.01.6.3	Post-harvest crop activities

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## Network Contact

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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## Dissemination

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### Send to Sector Group

Agrofood

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME <= 10

### Year Established

2011

### Turnover

<1M

### Already Engaged in Trans-National Cooperation

No.

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## Partner Sought

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### Type and Role of Partner Sought

The SME is searching for partners with whom they can form mutually beneficial technical collaborations/agreements for the development and supply of their advanced controlled environment agricultural monitoring and control systems to the UK, European and World markets.

Typical partners include:

- (1) Commercial hydroponic system suppliers
- (2) Greenhouse manufactures
- (3) Vertical farming companies
- (4) Living-wall and green-roof suppliers
- (5) Commercial crop producers
- (6) Horticultural support service suppliers / crop consultants
- (7) Plant breeders and seed suppliers
- (8) Agricultural equipment and support service companies
- (9) Agricultural chemical / mineral fertiliser manufactures

Additionally, the SME is interested in making contact with academic organisations with interests in precision agriculture, indoor agriculture, vertical farms, living walls and green roofs for cooperation in the acquisition and execution of nationally or internationally funded R&D projects.

### 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

## Technology Offer

### **Dutch SME is looking for partners to further develop ammoniac sensor (1ppm) for new industries**

#### Summary

*A Dutch SME in the sensor industry has developed a device to measure ammonia in air and in liquid (mainly water) with an accuracy of 1 part per million and a response time of 55 seconds. They are now looking for industrial partners to further develop the device to new product-market applications. Cooperation would be a combination of a technical cooperation agreement and a license agreement. Partners should be able/willing to develop a specific product-market application and market it globally.*

Creation Date	10 November 2015
Last Update	19 November 2015
Expiration Date	18 November 2016
Reference	TONL20151110001

#### Details

##### Description

The Dutch SME, active in the sensor industry has developed a sensor, which measures ammonia at a concentration of 1 ppm (part per million) with a response time of 55 seconds. The sensor and the demonstration model in which it is applied, originally developed to measure ammonia in human breath, can be used in many different applications and industries, such as (but not limited to) process industry, water technology, agro food industry, agriculture industry, environmental industry, etc.

The sensor is a microfluidic chip using membrane technology to filter ammonia particles from the air flow (or other substance, based on its application) using an acidic solution that acts as a sink for the ammonia. In order to determine the concentration, the ammonia is forced out of the acidic solution, passes another membrane, after which the ammonia is captured in purified water. Subsequently, a sensor measures the conductivity of the ammonia in purified water (see figure). Given the flexibility of the technology it can be applied/modified to handheld devices as well as larger installations.

Although the original application of the device was to measure ammonia in breath for medical purposes, it can also be applied to many other industries and applications. The client is seeking partners to further develop/modify the device in order to make it suitable for other industries. Given the high accuracy of the measurements the device proves to be highly competitive with mainstream sensors measuring ammonia (generally 500 ppm). Therefore, partners should not only be able and willing to further develop the device for a specific industry, but also bring it on the market globally or on the partner's continent. The partner will become the exclusive dealer for their specific industry for their continent or preferably the global market. After the device has been made suitable for a specific industry, the partner should be able to market and sell the

device. Therefore, cooperation should be a combination of technical cooperation and a license agreement.

## Advantages and Innovations

- High accuracy: 1 part per million
- Short response time: 55 seconds
- Given the scalability of the technology it can be applied/modified to a handheld device.
- The technology used allows the device to measure ammonia in air and water.
- Direct indication of the concentration of ammonia in substance (no need for additional lab tests).

## Stage of Development

Available for demonstration

## IPR Status

Secret Know-how

## Profile Origin

Private (in-house) research

## Keywords

### Technology

02003005	Information processing & Systems, Workflow
09001009	Sensor Technology related to measurements

### Market

08001008	Membranes and membrane-based products
08004001	Air filters and air purification and monitoring equipment
08004003	Water treatment equipment and waste disposal systems
08004004	Other pollution and recycling related

### NACE

J.62.0.9	Other information technology and computer service activities
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## Network Contact

### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

**Phone Number**

34 955 00 74 45

**Email**

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**   **Yes**

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**Client**

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

Industry SME <= 10

**Year Established**

2008

**Turnover**

<1M

**Already Engaged in Trans-National Cooperation**

No.

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**Partner Sought**

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**Type and Role of Partner Sought**

The client is looking for industrial parties able and willing to further develop the device for the partners specific industry and to market and sell the product globally or at least on the partner's continent.

In the development stage, the partner will be responsible for the production of the product/application tool, for their respective market. The client will assist through transferring the know-how to the partner. Moreover, the client can provide support in searching for subcontractors/suppliers.

After the development stage the partner should thus also be able to, amongst other, carry out promotional activities, deal with legal affairs and take care of financial affairs. Therefore, the partner should be a fairly large SME or MNE (>250 employees).

Considering the two stage approach (first development and secondly marketing the product) the form of cooperation will be a combination of technical cooperation agreement and a license agreement.

## **Type and Size of Partner Sought**

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

## **Type of Partnership Considered**

License agreement

Technical cooperation agreement

## Technology Offer

# Innovative shape sensing technology

## Summary

*A German SME offers shape-sensors being capable of capturing their positions by creating a 3D-model of their current layout. The cable-like shape-sensor opens up numerous applications like monitoring and control of machines and robots, whereas the sensor for large objects allows for a precise monitoring of e.g. technical facilities, aircrafts or bridges, detecting fatigue of material or overload. Technical cooperation agreements and licensing are offered to industrial partners.*

<b>Creation Date</b>	09 November 2015
<b>Last Update</b>	18 November 2015
<b>Expiration Date</b>	17 November 2016
<b>Reference</b>	TODE20151109001

## Details

### Description

The German SME's focal point lies on position-aware materials, combining years of experience in software development, electronics, optics and mechanics. Electronic circuit design is performed in house employing topical computer-aided-engineering (CAE) tools. For the development of optical and mechanical elements they rely on established computer-aided-design (CAD) technologies. Furthermore, they have their own electronics laboratory as well as shops for plastic, metal and wood treatment at hand. All this led to the development of a novel cable-like shape-sensor and a shape-sensor for large objects.

Cable-like shape-sensor: There are helically coiled foils built into the cable-like shape-sensors. Therefore, any kind of bending of the cable results in changes in the distances between the foil edges. These distances are optically tracked and send to a plotting computer, where the information is compiled into a virtual 3D-model of the cable's shape and position. Due to the compact construction the sensor delivers a high measuring density and provides space for a usable filling, which can host, for example, electric cables, optical fibers or bowden cables. The position information of the sensor shape is updated with high frequency. Thus the velocity at the sensor end can be determined exactly. With this information the automatic dosage of adhesives in dependence of hand movement is feasible. Recordings of trajectories of movement can be used to establish quality of service documentation, opening up numerous applications, arising wherever flexible connections have to be monitored.

Possible application areas:

- Monitoring of packaged cable assemblies, delivery hoses, vehicle connections, etc.
- Positioning and monitoring of flexible components (e.g. endoscopes, rooters, etc.)
- Risk assessments via surveillance of arrangements and shapes.
- Capturing of interactions; control of multi-joint robots or machines.
- In case of parallel layering three-dimensional profiles can be captured through which three-dimensional interaction and modeling becomes possible.

- As sensors are wieldable in foil, a three-dimensional determination of shapes, for example of inflatable objects, is possible.
- Integration in clothing for non-invasive motion-capturing or surveillance of work wear (e.g. for divers, lumberjacks).

Shape-sensor for large objects: Like the cable-like shape-sensor this sensor system creates a three-dimensional model of an elongated object. This sensor is not as flexible as the cable-like shape-sensor but very precise for huge objects. Every change of shape and special arrangement produce a change of the model correspondingly. The change of an object over time can be observed. The sensing of shapes is accomplished by laser measuring sections integrated in tubes. The tubes can be connected to one another, so that for each application a suitable system can be configured. A special realization allows not only the detection of bending but also torsion. The configuration of the tubes is extendable, allowing the measurement of accelerations, gyro, magnetic field and pressure. The sequential arrangement of the sensor segments is detected automatically and a corresponding three-dimensional model is created. The segments may be connected by angle pieces to fit the objects shape. The flexibility of the complete sensor system can be adapted by variation of the segment length. The tubes have a diameter of 75mm and a range of length from 2-6m.

Possible application areas:

- Large technical facilities may be monitored; fatigue of material and overload are detectable.
- Deformation and properties of air flow may be detected and optimized.
- For bridges a permanent surveillance and stress analysis can be realized.
- Buildings can be surveilled; the detection of wind load or seismic influences is feasible, the deformation of building corpus is measurable.

Industrial partners are sought for technical cooperation or licensing.

## Advantages and Innovations

The developed shape-sensors give three-dimensional models of line objects of various sizes, including very large objects. Both sensors are basic-technologies for various further applications. The measurement of both systems is very precise.

## Stage of Development

Already on the market

## IPR Status

Granted patent or patent application essential

## Profile Origin

Private (in-house) research

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## Keywords

### Technology

01002004

Embedded Systems and Real Time Systems

02003005

Information processing & Systems, Workflow

02004 Plant Design and Maintenance  
02006005 Construction maintenance and monitoring methods & equipment  
09001009 Sensor Technology related to measurements

## Market

03005 Laser Related  
03006 Fibre Optics  
08002002 Industrial measurement and sensing equipment  
09007004 Engineering and consulting services related to construction

## NACE

J.62.0.1 Computer programming activities  
J.62.0.2 Computer consultancy activities  
J.62.0.9 Other information technology and computer service activities

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## Network Contact

---

### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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## Dissemination

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### Send to Sector Group

Materials

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## Client

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## Type and Size of Organisation Behind the Profile

Industry SME <= 10

## Year Established

0

## Already Engaged in Trans-National Cooperation

No.

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## Partner Sought

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### Type and Role of Partner Sought

- Type of partner sought: Industrial partners

- Specific area of activity of the partner: Partners active in construction, monitoring and control of machines and robots and/or large objects such as technical facilities, buildings, aircrafts or bridges.

- Task to be performed by the partner sought:

Apply the developed technologies for monitoring and control of machines and facilities under a technical cooperation or a licensing agreement.

### Type of Partnership Considered

License agreement

Technical cooperation agreement

## Technology Request

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# Seeking drone technology able to deliver an electric arc on a vertical surface

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## Summary

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*A French company specialized in material surface monitoring, especially corrosion inspection is looking for partners having a drone technology capable to deliver an electric arc on a coated surface. The French company is looking for technical cooperation to develop new testing techniques.*

<b>Creation Date</b>	23 November 2015
<b>Last Update</b>	30 November 2015
<b>Expiration Date</b>	30 November 2016
<b>Reference</b>	TRFR20151123003

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## Details

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### Description

The French SME has strong expertise in corrosion inspection for specific installations exposed to corrosion risks, such as oil platforms, bridge infrastructures, pressure vessels, specific industry equipment, etc. It has already worked for major companies (oil and gas, energy, civil engineering...) as well as SMEs. They already implement drones for some inspection, but mainly for visual inspection. For some construction sites, the implementation of the inspection technique needs a lot of installation, very expensive and time-consuming. Using drone can be an easier and faster way to carry out these inspections.

The French company is willing to work with a partner having a strong expertise in drone, as developer but also user. They are looking for a drone who as the ability of:

- Bringing on air electrical power supply to deliver electric arc
- Equipped to deliver this electric impulsion in a vertical surface (not only horizontal surface underneath the drone)

The drone has to show a good stability in the air to perform the electric arc delivery. The drone should not be disturbed by the electric impulsion and ensure safe piloting. As describe above, the main application envisage is for monitoring of coating, especially to process verification of dry-film thickness for corrosion protection (according to the standard ISO 19 840 for example).

The French company is interested in working under a technical cooperation agreement to bring drones for new and cost-effective inspection techniques.

### Technical Specification or Expertise Sought

Strong experienced partner in the field of drones.

- The drone itself should be able to bring on air electrical power supply to deliver electric arc
- The drone has to be equipped to deliver this electric impulsion in a vertical surface (not only

horizontal surface underneath the drone)

- The drone has to remain stable and ensure safe piloting, taking into account potential electromagnetic perturbation induced by the power supply and electric impulsion delivery

## Stage of Development

Available for demonstration

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## Keywords

### Technology

02002002	Coatings
02011001	Aeronautical technology / Avionics
09001003	Chemical material testing
09001004	Electrical Technology related to measurements

### Market

09003001	Engineering services
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### NACE

M.71.1.2	Engineering activities and related technical consultancy
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## Network Contact

### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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## Dissemination

### Send to Sector Group

Aeronautics & Space

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME <= 10

### Year Established

2014

### Already Engaged in Trans-National Cooperation

No.

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## Partner Sought

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### Type and Role of Partner Sought

The company is looking for a partner having a strong experience with drone. The partner should be a drone developer but also users are of interest. The French partner will bring its expertise in corrosion testing techniques. The aim is to propose the technical solution of anticorrosion coating test processing using drone in order to perform new monitoring techniques of coatings.

The company ideally seeks partners to work under technical agreement and cooperate to perform cost-effective and innovative monitoring solutions. The best partnership suitable for both parties can be determined throughout further exchanges.

### 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

Technical cooperation agreement

## Technology Request

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### A French company seeking drone technology able to proceed traction test

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#### Summary

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*A French company specialized in material surface monitoring, especially corrosion inspection is looking for partners having a drone technology able to proceed traction test. The French company is looking for technical cooperation to develop new testing techniques.*

<b>Creation Date</b>	23 November 2015
<b>Last Update</b>	30 November 2015
<b>Expiration Date</b>	30 November 2016
<b>Reference</b>	TRFR20151123002

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#### Details

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#### Description

The French SME has strong expertise in corrosion inspection for specific installations exposed to corrosion risks, such as oil platforms, bridge infrastructures, pressure vessels, specific industry equipment, etc. It has already worked for major companies (oil and gas, energy, civil engineering...) as well as SMEs. They already implement drones for some inspection, but mainly for visual inspection. For some construction sites, the implementation of the inspection technique needs a lot of installation, very expensive and time-consuming. Using drone can be an easier and faster way to carry out these inspections.

The French company is willing to work with a partner having a strong expertise in drone, as developer but also user. They are looking for a drone who as the ability of:

- Going to stick a dolly on a surface
- Being able to catch this stuck dolly
- Being able to apply a traction force on the dolly to remove it from the surface

The drone has to be very stable, equipped with robot arms for sticking the dolly onto a vertical surface (meaning not under the drone only). As describe above, the main application envisage is for pull-off test for adhesion of paint and varnishes (according to the standard ISO 4624 for example).

The French company is interested in working under a technical cooperation agreement to bring drones for new and cost-effective inspection techniques.

#### Technical Specification or Expertise Sought

Strong experienced partner in the field of drones.

The drone itself should be able to perform a traction force horizontally. That means the drone should have robot arms to catch anything which is not only under the drone (as main

applications such as delivery services for examples).

## Stage of Development

Available for demonstration

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## Keywords

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### Technology

02002002	Coatings
02011001	Aeronautical technology / Avionics
09001002	Analyses / Test Facilities and Methods
09001003	Chemical material testing
09001005	Mechanical Technology related to measurements

### Market

09003001	Engineering services
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### NACE

M.71.1.2	Engineering activities and related technical consultancy
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## Network Contact

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**   **Yes**

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## Dissemination

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### Send to Sector Group

Aeronautics & Space

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME <= 10

### Year Established

2014

### Already Engaged in Trans-National Cooperation

No.

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## Partner Sought

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### Type and Role of Partner Sought

The company is looking for a partner having a strong experience with drone. The sought partner should be a drone developer but also users are of interest. The French partner will bring its expertise in corrosion testing techniques. The aim is to propose the technical solution of traction test processing using drone in order to perform new monitoring techniques of coatings.

The company ideally seeks partners to work under technical agreement and cooperate to perform cost-effective and innovative monitoring solutions. The best partnership suitable for both parties can be determined throughout further exchanges.

### 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

Technical cooperation agreement

## Technology Request

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### Weighting technology for self-service liquid dispenser

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#### Summary

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*An innovative small company from Latvia operating in the field of development and production of self-service devices is looking for a weighting technology for automatic liquid dispenser. Any tested solutions are welcomed. The company is looking for commercial agreement with technical assistance or technical cooperation agreement.*

**Creation Date** 09 November 2015  
**Last Update** 28 November 2015  
**Expiration Date** 28 November 2016  
**Reference** TRLV20151109001

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#### Details

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##### Description

The Latvian company has developed a new self-service liquid dispenser. For commercialization the device the company is looking for a technology or solution to add a weight-pressure related suspension mechanism for filling process. The specific device allows refilling different liquids in tare provided by customers. To ensure constant amount of liquid filled each time the device requires a sensor or in-built scale to control the amount of the liquid filled by the customer. The company is looking for a solution that is already on the market or tested and available for demonstration.

##### Technical Specification or Expertise Sought

The preferable weight detection should be between 0 grams up to 1 kg or more with high accuracy. The "tare" function will be considered as an advantage. The location of the sensor or in-built scale can be seen on the picture attached.

##### Stage of Development

Prototype available for demonstration

##### IPR Status

Other

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#### Keywords

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##### Technology

02003001 Process automation  
09001005 Mechanical Technology related to measurements

09001007      Optical Technology related to measurements  
09001009      Sensor Technology related to measurements  
09003          Electronic measurement systems

## Market

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

## NACE

F.43.9.9          Other specialised construction activities n.e.c.

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## Network Contact

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### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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## Dissemination

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### Send to Sector Group

Automotive, Transport and Logistics

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME <= 10

### Year Established

2014

## Turnover

<1M

## Already Engaged in Trans-National Cooperation

Yes

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## Partner Sought

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### Type and Role of Partner Sought

The type of partner sought: manufacturer or provider of industrial technologies.

The tasks to be performed by the partner sought: provide the requested sensor or in-built scale mechanism or other technological solution.

### Type and Size of Partner Sought

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

### Type of Partnership Considered

Commercial agreement with technical assistance

Technical cooperation agreement

## Technology Request

# Sensor technologies requested for highly accurate measurement of dimensions of moved boxes

## Summary

*An Upper Austrian company is looking for close to market sensors for the development of a new inspection system for application in logistics. Dimensions (3D) of boxes and their local defects (bulges, impressions) shall be measured with high accuracy while the boxes are moved on a conveyor. Sensor developer / manufacturer are sought for a technical cooperation (integration into the new inspection system) and a subsequent manufacturing agreement (supplying the sensor for serial production).*

<b>Creation Date</b>	30 November 2015
<b>Last Update</b>	30 November 2015
<b>Expiration Date</b>	30 November 2016
<b>Reference</b>	TRAT20151130001

## Details

### Description

The Upper Austrian middle sized enterprise has been a well established retailer for industrial components and solution provider for quality inspection systems in diverse industrial sectors for many years.

For the development of a new inspection system for applications in logistics the company is looking for sensors / sensor technologies for highly accurate measurement of dimensions (3D) and local defects of boxes, which are moved on a conveyor belt.

In large stores and warehouses huge numbers of different boxes are stacked on racks by automated systems. For using rack spaces most efficiently boxes have to be stacked very close to each other. For the automated system it is essential to know the dimensions of every box and local defects in these dimensions as exact as possible. With state of the art systems (measuring light grids, laser line triangulation) measurement of 3D dimensions of boxes moved on conveyor belts is not accurate enough as requested by store operators.

The Upper Austrian company is looking for developer / manufacturer offering a suitable sensor or related technology for integration into a prototype of the new inspection system (technical cooperation agreement). Should the prototype succeed, the Austrian company plans to build up series production of the new inspection system and to purchase the required sensor from the partner in form of a subcontracting agreement (manufacturing agreement).

### Technical Specification or Expertise Sought

- The sensor should be able to measure the dimensions of (rectangular) boxes with an accuracy of +/- 5 mm and local defects in these dimensions (bulges, impressions) with a size down to +/- 5 mm.

- length of the edge of the boxes: maximum 1000 mm, minimum 500 mm
- boxes with different dimensions possible
- The boxes are moved on a conveyor belt through an inspection tunnel with a velocity of approx. 0,5 m/sec. The movement may cause slight wobbling of the boxes during measurement.
- As measurement is done in the inspection tunnel, extraneous light will have no influence and thus has not to be considered.
- The sensor should be close to market.

Technologies of interest might include, but are not limited to:

- real time 3D image acquisition camera systems
- measuring light grids / curtains
- laser line triangulation
- time of flight cameras
- light field based technologies

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## Keywords

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### Technology

02003001	Process automation
02003003	Component integration
09001007	Optical Technology related to measurements
09001009	Sensor Technology related to measurements
09003	Electronic measurement systems

### Market

08002002	Industrial measurement and sensing equipment
08002003	Process control equipment and systems
08006001	Process control and logistics

### NACE

C.27.9.0	Manufacture of other electrical equipment
G.46.6.9	Wholesale of other machinery and equipment

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## Network Contact

---

### Issuing Partner

AGENCIA ANDALUZA DEL CONOCIMIENTO

### Contact Person

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

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**Open for EOI :**    **Yes**

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME 50-249

### Year Established

0

### Already Engaged in Trans-National Cooperation

Yes

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## Partner Sought

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### Type and Role of Partner Sought

Specific area of activity of the partner:

developer and / or manufacturer of sensor / sensor technologies for 3D measurements (regardless of industrial sector); ideally the partner is able to provide a sensor already on the market or a prototype of sensor suited for pilot applications.

Task to be performed by the partner:

- technical cooperation agreement: the partner should offer a suitable or adaptable sensor / sensor technology together with technical details and support for the integration into the new inspection system. After evaluation of a first concept for the new system together with a client from logistics sector a prototype will be built by the Upper Austrian company.
- manufacturing agreement: In case of succes the Austrian company plans to build up series production of the new system and to enter into a subcontracting agreement with the sensor provider.

### 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  
Technical cooperation agreement

## Technology Request

# Innovation challenge: methods to characterize the damage to an outer protective garment intended for extreme environments

## Summary

*A US national research and development (government) agency seeks assessment methodologies of the wear on textiles subject to harsh foreign climate conditions. The challenge sponsor desires to enter a financial agreement in the form of a cash prize and a license agreement for the selected technology.*

<b>Creation Date</b>	09 October 2015
<b>Last Update</b>	26 November 2015
<b>Expiration Date</b>	26 November 2016
<b>Reference</b>	TRUS20151009001

## Details

### Description

The deadline to respond to this challenge is December 3, 2015 at 5 pm Eastern Standard Time (EST). Expressions of Interest (EoIs) submitted through the EEN do not count as entries to the challenge. Full entries will require additional time and further instructions, which will be furnished upon submission of EoI. EoI deadline is November 24, 2015 to allow time for preparation of a complete entry.

A US national research and development (government) agency is searching for test methods or procedures to evaluate the deterioration of the fabric used in the outer layer of an environmental protection garment (EPG) when exposed to severe conditions including temperature and pressure differences and abrasion due to dust and dirt. The specific technical challenge lies in the novelty of the regolith materials to which the fabric will be subjected.

A total prize pool of US\$15,000 is available in the form of three US\$5,000 prizes. The sponsor will recognize prize winners through published announcements and individual profile stories. Successful applicants may also have the opportunity for future collaboration with the sponsor. Acceptance of prize grants the sponsor with an unlimited royalty-free license to use winning methodologies.

### Technical Specification or Expertise Sought

Entries will serve as a non-confidential introduction to the respondent's technology and expertise and should address the following criteria:

The successful technology or procedure will:

- Provide a textile layup abrasion method capable of being performed with regolith.

- Indicate the size and quantity of particles that migrate through the different layers of the EPG.
- Provide a clearly defined method to catalog and quantify degradation of the layers including: cuts, abrasion, color changes, reduction in tear or tensile strength, reduction in thermal insulation.
- Have a correlation between separate administrations of the test of 0.7 or higher.
- Have an absolute difference between two repeated test results that lies within a probability of 95%.

And preferably will:

- Require no more than an hour to complete the test and/or run autonomously
- Not require specific textile expertise to execute the testing or interpret the results

Possible approaches might include, but are not limited to:

- Tumbling device to expose a mounted sample to simulant
- Modification of standard wear testing devices such as the Taber wheel, the abrader, or gelbow tester.
- Modification of non-destructive examination (NDE) techniques for textile applications

## Keywords

### Technology

09001008      Other Non Destructive Testing

### Market

08005      Other Industrial Products (not elsewhere classified)

### 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

Leonor Camacho

### Phone Number

34 955 00 74 45

### Email

leonor.camacho@juntadeandalucia.es

**Open for EOI :**    **Yes**

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## Client

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### Type and Size of Organisation Behind the Profile

R&D Institution

### Year Established

0

### Already Engaged in Trans-National Cooperation

No.

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## Partner Sought

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### Type and Role of Partner Sought

Responses from companies (small to large), academic researchers, other research institutes, consultants, venture capitalists, entrepreneurs or inventors are welcome.

A total prize pool of US\$15,000 is available in the form of three US\$5,000 prizes. The sponsor will recognize prize winners through published announcements and individual profile stories. Successful applicants may also have the opportunity for future collaboration with the sponsor. Acceptance of prize grants the sponsor with an unlimited royalty-free license to use winning methodologies.

### 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

# Asuntos Sociales y Económicos

## Research & Development Request

# Transnational Cooperation Programme Interreg Balkan-Mediterranean 2014-2020: GREEN TWINS - search for local public authorities and sustainability- focused support organisations

### Summary

*Bulgarian leading NGO in innovation and policy research is preparing a proposal for the 1st Call of the Balkan-Mediterranean Transnational Cooperation Programme. The aim of the project is to foster knowledge and experience-sharing between local authorities by creating twinning between municipalities. The NGO is looking for local public authorities and business and innovation support organisations with project experience in the sustainability and environmental protection fields.*

**Creation Date** 26 November 2015  
**Expiration Date** 26 November 2016  
**Reference** RDBG20151125001

### Details

#### Description

The project proposal aims to foster knowledge and experience-sharing between local authorities from the 5 participating countries included in the BalkanMed Programme, by creating twinning between municipalities. The participating authorities will be selected and paired based on their initial environmental issues. Each pair will be made up of one municipality that has introduced measures to overcome its environmental challenges and one that has not implemented such measures. Municipalities will also be invited to work with local environmental/ SME support organizations to promote green practices in their area and increase territorial competitiveness. The thematic focus of the project will be on resource efficiency and waste management. A mobile information-educational center, called the 3D Ecobus, will be used in later project phases as a promotional tool.

The proposal complies with:

Priority Axis 2: Environment

Specific Objective 2.2: Sustainable territories: fostering transnational cooperation for resource efficiency and climate change resilience

Partners are sought with a background in business and innovation support activities with focus on eco-innovations, sustainability and environmental protection, as well as local public authorities such as municipalities/national associations of municipalities.

The first call for proposals is not officially opened yet but that is expected to happen by the end

of November.

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## Keywords

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### Technology

10002006	Ecology
10002013	Clean Production / Green Technologies
11004	Technology, Society and Employment

### Market

09003005	Consulting services
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### NACE

M.74.9.0	Other professional, scientific and technical activities n.e.c.
N.82.9.9	Other business support service activities n.e.c.

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**Open for EOI :** **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

The Bulgarian NGO is looking for partners such as intermediary and business support organizations with solid project experience in the sustainability and environmental protection fields. Their activities within the project will include methodology development, event management, promotion and dissemination practices, etc.

The NGO is also looking to include partners such as local public authorities in the proposal. Given the specific focus of the proposal, authorities such as municipalities/national associations of municipalities will be most suitable. They will be responsible for providing/adopting good practices, mutual learning and twinning and ensuring public outreach.

### Type and Size of Partner Sought

University,R&D Institution

### Type of Partnership Considered

Research cooperation agreement

## Research & Development Request

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### **H2020: Universities with links to primary education and social support organisations to join bid REV-INEQUAL-06-2016: Tackling inequalities at their roots: new policies for fairness in education from early age**

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#### Summary

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*A UK university with expertise in the study of education and social inclusion are leading a bid for REV-INEQUAL-06-2016: Tackling inequalities at their roots: new policies for fairness in education from early age. They seek, as core partners, universities from a range of European regions (e.g Eastern Europe, Mediterranean and Scandinavian countries) with an interest in the sector and that have existing contacts in schools, healthcare and social support organisations for primary age children.*

<b>Creation Date</b>	13 November 2015
<b>Expiration Date</b>	30 November 2016
<b>Reference</b>	RDUK20151113001

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#### Details

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##### Description

Educational inequalities remain pervasive in all European education systems regarding access, treatment and outcomes. European education systems need to cater for considerable diversity and enable all citizens to succeed and develop their full potential, irrespective of background and according to their specific learning needs. Yet, whole social groups or sub-sets of the population persistently perform less well in education. There are also wide geographic disparities in education, between and within Member States, also regarding early-childhood (pre- primary) education. Finally, many learners with disabilities and/or special educational needs are still placed in segregated institutions or in mainstream settings with inadequate support, frequently leaving school with insufficient qualifications.

The role of pre-primary and primary education has been recognised as being of fundamental importance in the educational cycle, as they lay the foundations for future educational and professional attainment. However, huge disparities exist within Europe also at this level.

The UK university will be leading the project, and will be looking at the role of family support, community interventions, as well as promising in-school interventions, and the means by which the impact of poverty on low attainment, poor health and restricted life chances may be reduced.

The consortium at present consists of the UK university and a Spanish university and they are seeking five partners in total.

They are hoping to meet universities from a range of countries working with children up to the age of 11 within schools, healthcare services and social support organisations, from a range of geographic clusters (such as new member states, Mediterranean countries and so on). While the bid should explore 'European countries with higher levels of educational poverty' the university is keen to attract partners from a range of countries with different welfare and equality characteristics, such as within Scandinavia.

The project has an estimated duration of 5 years: 3 years of work and 2 years of dissemination.

Deadline for the call: 6 February 2016

Deadline for EOIs in this profile: 10 January 2016

## Stage of Development

Concept stage

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## Keywords

### Technology

11002

Education and Training

11004

Technology, Society and Employment

### Market

01006005

Other communications (not elsewhere classified)

### NACE

P.85.2.0

Primary education

Q.88.9.9

Other social work activities without accommodation n.e.c.

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**Open for EOI :** **Yes**

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## Partner Sought

### Type and Role of Partner Sought

- Type of partner sought: University

- Specific area of activity of the partner: Research in education, inclusion and anti-poverty initiatives. And to establish a network of schools, communities and social support organisations.

- Field of expertise/experience: The study of primary education, social inclusion, discrimination, healthcare support for children, full-service and extended schools organisations.
- Task to be performed by the partner sought: (1) Participation and linking to other support and healthcare organisations and educational institutions. (2) Identifying, improving and codifying promising initiatives for wider piloting and application.

## **Type of Partnership Considered**

Research cooperation agreement

## Technology Offer

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# Spanish company with patented safety equipment looking to manufacture prototype and for commercial partners

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### Summary

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*This Spanish company has a utility model patent for a device that reduces person weight relieving the overload of the lumbar vertebrae and the disc vertebrae caused by excessive standing or sitting time. The traction effect causes stretching of the vertebrae, thereby lengthening the distance between vertebrae and hence preventing back overload. This company seeks private financial partners for commercialisation and is also interested in reaching agreement with manufacturers to create prototypes.*

<b>Creation Date</b>	10 November 2015
<b>Expiration Date</b>	26 November 2016
<b>Reference</b>	TOES20151021001

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### Details

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#### Description

This Spanish engineering company located in Northern Spain has patented a utility model for a device that reduces the weight supported by a person's back when seated or standing on the job. This device operates via a force that pulls upwards from the inferior part of the torso and can function in three positions, which can be seen in the drawings attached. This device relieves the overload on the lumbar vertebrae and the disc vertebrae. The traction effect causes stretching of the vertebrae, thereby lengthening the distance between vertebrae and hence preventing overload and potential back pain.

There is wide range of potential users for this device including protection for truck/bus drivers, operators of heavy equipment and agricultural machinery, and importantly people in wheelchairs. Furthermore there is a preventative use that can prove beneficial in offices, gyms and private homes.

This company seeks private financial partners for commercialisation. Secondly, this company is interested in reaching agreements with manufacturers to create prototypes.

#### Advantages and Innovations

This innovative device replaces known solutions for back safety and prevention but are less effective such as girdles, cushions, pads, etc. The advantages to utilising this device over other known products include the easiness of wear, low cost and use of stronger materials. However, most importantly, the innovative aspect is the design which contributes ten fold to back pain relief.

## Stage of Development

Field tested/evaluated

## IPR Status

Patents granted

## Profile Origin

Private (in-house) research

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## Keywords

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### Technology

11004 Technology, Society and Employment

### Market

05007007 Other medical/health related (not elsewhere classified)  
05010001 Safety for the elderly  
08003007 Other industrial equipment and machinery  
08005 Other Industrial Products (not elsewhere classified)  
09001002 Trucking

### NACE

C.32.9.9 Other manufacturing n.e.c.  
M.74.9.0 Other professional, scientific and technical activities n.e.c.  
Q.86.9.0 Other human health activities

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**Open for EOI :** **Yes**

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## Partner Sought

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### Type and Role of Partner Sought

This company seeks private financial partners for commercialisation. Secondly, this company is interested in reaching agreements with manufacturers to create prototypes.

### Type and Size of Partner Sought

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

## Type of Partnership Considered

Financial agreement  
Manufacturing agreement