

Technology Request

An Italian company is searching technical know-how in the field of power electronics and battery systems

Summary

An Italian SME has developed state-of-the-art engineering competence on diesel engine design with specific development of a diesel/electric hybrid powertrain for off road applications. It's searching for technical and research cooperation and manufacturing agreement with international partners, expert on the power electronics associated to the electrical portion of the hybrid powertrain, to be applied on off-road machinery.

Creation Date	19 March 2018
Last Update	03 April 2018
Expiration Date	04 April 2019
Reference	TRIT20180221001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/6e5e4aa0-7220-423d-93af-575fabcd328f

Details

Description

This company was established in 2014 in northern Italy with expertise related to diesel engine design and development. Decades - long extensive experience of key managers on development and manufacturing of diesel engines has set up the basis of a robust know-how. At present, this company supplies customers in Far East countries, in particular in China.

The company has developed several new state-of-the-art diesel engines for international customers. Engines are currently in production at the customer's plant and applied on on-highway vehicles and off highway machinery (Agriculture, industry, marine, Construction etc.). In order to extend the technology to diesel-electric hybrid powertrain the company has set up a specific branch developing a unique hybrid architecture, implying specific know how on power electronics, battery management systems and system control (software and hardware).

The needed technology concerns in particular: inverters, battery management systems, high power density electric motors, control unit, control software developer.

They are interested in technical and research cooperation, and manufacturing agreement by providing their expertise and/or their systems, with partners having the competence in the above power electronics for optimizing the development and future production of the system.

It would also extend the marketing reach to sectors traditionally more oriented to electric power sources.

The cooperation could have different formats and timing.

Initially:

- Technical advanced Research to continuously improve the product
- Optimization of the overall system in terms of production and cost competitiveness

In a second phase:

- Sharing production plans by combining the respective manufacturing competences.

Technical Specification or Expertise Sought

This company is seeking transnational cooperation with private companies to further explore processes and optimization in the sector of electronic integration of power systems, inverters, battery systems and battery management systems, electronic control units and control software development.

Stage of Development

Available for demonstration

IPR Status

Design Rights

Keywords

Technology

02009002

Hybrid and Electric Vehicles

02009014

Automotive electrical and electronics

Market

08003004

Industrial trucks and tractors

08003007

Other industrial equipment and machinery

NACE

M.72.1.9

Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Dissemination

Send to Sector Group

Automotive, Transport and Logistics

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2014

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

This Italian company is searching a technical know-how in the field of power electronics and battery systems to integrate their core competence in the diesel-electric hybrid powertrain field, to be applied on off-road machinery.

The ideal partners of this company are private international SMEs with a strong internal know-how, to provide their expertise and/or their systems and to accelerate the system optimization for future production.

The cooperation would also extend the marketing reach to sectors traditionally more oriented to electric power sources.

It would be based on research and technical cooperation and manufacturing agreement.

It could have different formats and timing, initially it could be technical advanced research to continuously improve the product, or finalized to optimize the overall system in terms of production and cost competitiveness. In a second phase, it could be aimed to share production plans by combining the respective manufacturing competences.

The Italian company is currently exporting to the Far East market 100% of their product and is used to international and extra-European partnerships. As such the cooperation is open in particular to European and Asian markets, as they show greater potentiality, but they are interested in other markets, too.

Type and Size of Partner Sought

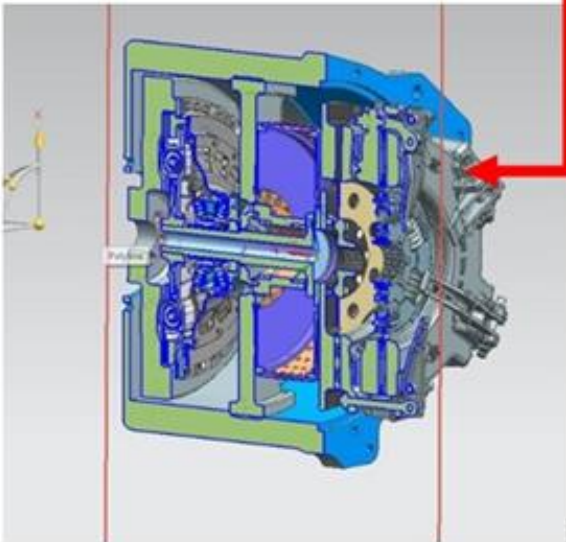
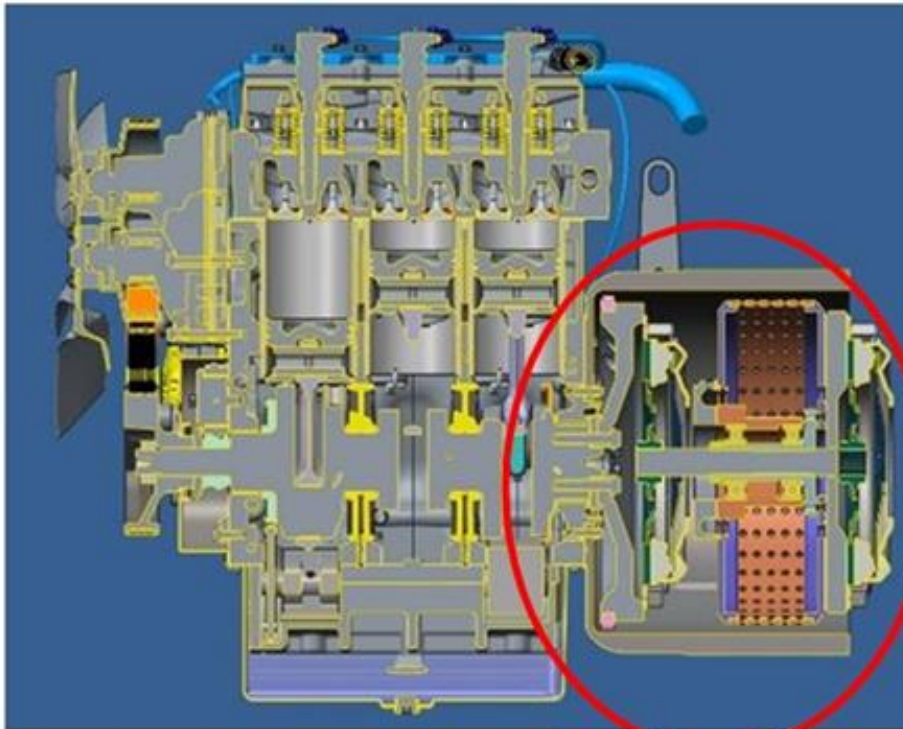
SME 11-50, University, R&D Institution, SME <10

Type of Partnership Considered

Manufacturing agreement
Technical cooperation agreement
Research cooperation agreement

Attachments

immcomp.jpg



Research & Development Request

LC-GV-04-2019: A French SME looking for trucks and passenger cars manufacturers to develop a combustion engine based on heat recovery technology reducing energy consumption

Summary

A high-performance French SME operates in the sector of intelligent energy applied to automotive, transport and logistics. In response to the H2020 "LC-GV-04-2019: Low-emissions propulsion for long-distance trucks and coaches" the coordinator of the project is seeking partners to integrate a heat to power recovery technology reducing energy consumption on an vehicle through a research cooperation agreement. Partners sought are trucks and passenger cars manufacturers.

Creation Date	31 August 2017
Last Update	13 February 2018
Expiration Date	20 June 2018
Reference	RDFR20170831001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/29484280-4c98-4de9-b568-169abfb2d0

Details

Description

The global shift to low-carbon economy has started and its pace is accelerating through the European strategy for low-emission mobility. The low-emission mobility strategy aims at increasing the transport system efficiency, boosting the development of low-emission alternative energy for transport and moving towards zero-emission vehicles. For this purpose, improvements related to the internal combustion engine will be needed to accelerate the energy transition in Europe.

The topic of long-distance transport is highly important as it is one of the most consumer of energy and contributor to CO2 emissions. The main challenge and objective to be addressed by LC-GV-04-2019: Low-emissions propulsion for long-distance trucks and coaches call forthcoming is to reduce energy consumption, CO2 emissions in Europe.

As a response to the LC-GV-04-2019: Low-emissions propulsion for long-distance trucks and coaches call, the French coordinator of the project has developed a very innovative integrated waste heat recovery system based on an Organic Ranking Cycle. The SME is proposing this solution to vehicles that would integrate the innovative technology. The objective of such a project is to boost the energy transition towards low-emission vehicles by proposing an

innovation reducing fuel consumption and emissions.

As being active in the sectors of intelligent energy, automotive, transport and logistics, the SME has already proved its expertise and skills in many technical fields as follows :

- Demotruck
- Engineering
- Test benches
- Industrialisation

Indeed the SME has already been funded by the European funding programme SME Instrument - Project Phase 2 for the H2020-SMEINST-2-2016-2017 call.

The SME with its technical expertise combined with its experience in the European H2020 programme constitutes a real asset and could bring added-value to the market in the light of the European strategy on energy and green transport. The innovation developed is a response to the low-carbon economy.

The French SME is looking for partners to integrate the waste heat recovery system in trucks or coaches, passenger cars or generator sets. Partners sought are SMEs, MNEs or other type of organisations with expertise in :

- Trucks Original Equipment Manufacturing
- Passenger cars Original Equipment Manufacturing
- Trucks Tier One manufacturing
- Passenger cars Tier One manufacturing

Timescale :

The deadline for Expressions of Interest is the 1st of February 2018.

Advantages and Innovations

Advantages :

- Efficiency : The innovation is designed to reach the best efficiency/cost ratio.
- Validation : The innovation has been tested by 3 OEMs and 4 Tier Ones.

Innovations :

- Patented : The innovative heat recovery system is protected by 10 patents worldwide.

Stage of Development

Prototype available for demonstration

IPR Status

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

Keywords

Technology

02008005	Road Transport
02009004	Road Vehicles
04005010	Integrated waste-energy processes

04007003 Process optimisation, waste heat utilisation
04008001 Combustion, Flames

Market

06006003 Heat recovery
06011 Energy for Transport
08003006 Power transmission equipment (including generators & motors)
09001002 Trucking
09001005 Motor vehicles, transportation equipment and parts

NACE

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

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Open for EOI : **Yes**

Dissemination

Send to Sector Group

Intelligent Energy

Client

Type and Size of Organisation Behind the Profile

Ref: RDFR20170831001

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
French

Client Country

France

Partner Sought

Type and Role of Partner Sought

Expertise of partners sought :

- Trucks original equipment manufacturer
- Passenger cars original equipment manufacturer
- Trucks tier one manufacturing
- Passenger cars tier one manufacturing
- Coaches original equipment manufacturer

Role of partners :

- Integrating the innovative technology developed
- Marketing

Type and Size of Partner Sought

University,R&D Institution,>500 MNE,251-500

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

LC-GV-04-2019: Low-emissions propulsion for long-distance trucks and coaches

Coordinator Required

No

Deadline for EOI

20 Jun 2018

Deadline for Call

20 Jun 2018

Weblink to the Call

<https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/17092720final-pre-publ-cps-h2020-sc4-2018-2020.pdf>

Attachments

Technology Request

A Chinese company is looking for technology of testing equipment of biomass fuels

Summary

A Chinese company specializing in biomass fuels is looking for testing equipment that can measure major parameters of biomass fuels simultaneously. Any testing technique of biomass fuels is welcomed. The company wishes to find partner with universities, companies or research institutes. Research and Technical cooperation agreements are sought. The company is also open to other collaboration agreements.

Creation Date	27 May 2017
Last Update	12 July 2017
Expiration Date	12 July 2018
Reference	TRCN20170527001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/18d80664-5fd4-4266-8a06-f9921ba3d408

Details

Description

As the pioneer of biomass industry in China, the company has access to more than 20 million tons of biomass every year. Its main business scope includes the collection, processing, utilizing, sale and researching of biomass fuels.

The biomass fuels collected by the company mainly refers to the agricultural and forestry waste such as wood, bark, branches, bamboo material, template, sawdust, straw, and rice husk. The impurities contained in the biomass fuels include clay, gravel, and metal particles. And all the biomass fuels transported to the factory by trucks, trailer or agriculture vehicles are surrounded by iron fences.

The company is looking for a technology developer / provider of the testing equipment for biomass fuels. The testing equipment is expected to enhance the quality control over the biomass fuels, promoting the procurement efficiency and reducing the labor intensity. The equipment will be tested and evaluated to prove its ability for the integration into the research project. Other techniques to test the biomass sample is also welcomed.

The company is interested to explore cooperation with universities, companies and research institutes in the form of commercial, manufacturing, technical cooperation or research cooperation agreement.

Technical Specification or Expertise Sought

The major parameters of biomass fuels to be measured are as follows:

1. moisture content
2. calorific value
3. ash value
4. types and level of impurities.

The equipment should be able to test biomass fuels both in vehicles and on concrete floors. The vehicle is usually 2.5 m wide and 3m high. A pile of biomass fuels on the floor is about 1.5 m in height.

Stage of Development

Project already started

IPR Status

Patents granted

Keywords

Technology

04005011	Bio-refineries for energy
10003004	Recycling, Recovery
10003007	Waste to Energy /Resource

Market

06003009	Biomass and Biofuels
08004004	Other pollution and recycling related

NACE

E.38.2.1	Treatment and disposal of non-hazardous waste
E.38.2.2	Treatment and disposal of hazardous waste

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Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry >500

Year Established

2014

Turnover

250 - 500M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Chinese

Client Country

China

Partner Sought

Type and Role of Partner Sought

The company wishes to cooperate with institutes that can test the sample and make analysis.

The company also welcomes assistance from companies who are able to provide image recognition techniques or other method to test the samples.

They should follow concerning laws, regulations and industry standards of People's Republic of China.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance
Technical cooperation agreement
Research cooperation agreement

Attachments

Technology Request

A Chinese company is looking for automatic construction technology of engineering machinery based on machine vision.

Summary

A Chinese leading high technology equipment company is looking for automatic construction technology of engineering machinery based on machine vision. They want to cooperate with partner through research cooperation.

Creation Date	02 August 2017
Last Update	22 August 2017
Expiration Date	22 August 2018
Reference	TRCN20170802001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/082d6804-48e0-4303-81bd-8cb7d92dd4e6

Details

Description

This Chinese company was established in 1992.

The main products include engineering machinery, such as excavator, loader, bulldozer and crane, environmental cleaning and protection machinery like sweeping vehicle, cleaning sprinkler and agricultural machinery. After over 20 years' innovative development, it has been a globalized enterprise whose products cover 10 categories, 73 lines and more than 1000 varieties. At present, the company actively promotes strategic transformation to build itself as a high-end equipment manufacturing enterprise with engineering machinery, environmental industry, agricultural machinery and financial services.

The company is looking for partners for research cooperation of automatic construction technology of engineering machinery based on machine vision, in order to accelerate the process of realizing the achievement that it is trying hard to accomplish the company's transformation.

Machine vision technology is applied to crane construction in case that the crane winding system messes up ropes. What' more, machine vision detecting technology is also applied to large-scale garbage station, detecting the garbage level in the warehouse to achieve automatic control and detecting the status of garbage station buses, such as unloading bus and transferring bus.

Technical Specification or Expertise Sought

There are three requirements for the technology:

1. During crane construction, machine vision technology can be used to distinguish the crane winding system's normal rope arrangement from its disordered working condition. If the system is under disordered working condition, there will be alarming sounds. And the accuracy rate must be over 98%.

2. This technology can detect the garbage level of warehouse in large-scale garbage station, estimate whether the expected level of garbage is reached and get real-time feedback to control garbage warehouse automatically.

3. In cluster management working of garbage station vehicle, machine vision detecting technology is expected to be used to detect the status of unloading bus and transferring bus for intelligently planning those buses' trajectories and achieving intelligent traffic management.

Keywords

Technology

03003 Apparatus Engineering

Market

08002003 Process control equipment and systems

NACE

C.28.1.1 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines

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Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry >500

Year Established

1992

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English

Chinese

Client Country

China

Partner Sought

Type and Role of Partner Sought

The company is looking for R&D institution or company involved in automatic construction technology of engineering machinery based on machine vision.

The company is interested in research cooperation.

Type of Partnership Considered

Research cooperation agreement

Attachments

Technology Request

Improved Port Operations Safety via Vehicle Vision Systems

Summary

A multinational shipping enterprise with a registered base in Scotland (UK) is seeking novel approaches to improve Port Operations safety, particularly in the on-loading and off-loading of unaccompanied freight for Ferry and Roll-Off/Roll-On vessels. The ideal solution would work with a broad range of freight types, haulage companies, and vessel types. The Scottish company is looking for partnerships via a joint venture or a technical cooperation agreement.

Creation Date	24 January 2018
Last Update	31 January 2018
Expiration Date	31 January 2019
Reference	TRUK20180124001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/35e619e2-143b-4abc-9416-59597bf73b74

Details

Description

A leading multinational shipping enterprise with a registered base in Scotland (UK) is looking for technology solutions that can be applied to their cargo and passenger ships that travel in all of the world's oceans. The company is actively involved with open innovation and is currently involved with several international projects.

Tugmasters, port vehicles used to move freight, are operated by the company to retrieve unaccompanied freight that are parked at the port for loading onto the ship. Tugmasters at the destination port are then used to retrieve the freight and park again at the destination port for later retrieval by the haulage company.

Typically, port turn-around time is limited and port traffic (pedestrian and vehicular) is high during these off-loading/on-loading operations. The challenge is to develop a warning system for the companies Tugmasters to alert drivers of nearby pedestrians or vehicles. The rear of the trailers is the most important safety issue for staff. The company is aware of permanent systems that are used for dedicated tractors and trailers, but the required solution would need to be available to operate between the companies Tugmasters and any haulage company's trailer.

The company is willing to consider technology from other end-application sectors that are capable of addressing the problem set out here. The client is flexible in the approach to required development, so is open to joint venture/technical cooperation whichever is most appropriate. Some budget may be made available for development and this could include being actively

involved in the development of a solution, technical overview of the end application and provision of testing facilities.

Technical Specification or Expertise Sought

The company is primarily interested in temporary, portable systems that can be quickly attached and removed from unaccompanied freight from any hauling company. These systems could be warning only, automatic braking, or a combination of the two. Systems that provide warning to both the Tugmaster operator and pedestrian/vehicular traffic would be ideal.

Specific systems the company are aware of include:

- Infrared, Ultrasonic, Laser, and Radar detections systems with wired or wireless links between the tractors and trailers
- FMCW microwave systems
- Automotive pre-collision and night vision systems
- Automotive self-parking and Omni view technologies

Any extension of these technologies to the marine industry would be of interest. While the company are not aware of any such technology being in use, they would also be interested in any surveillance technology that could be adapted to continuously monitor all moving objects on board the company's ships that could be used to predict imminent danger to personnel or vehicles.

The evaluation criteria are listed below:

- Technical Viability- Solutions proposed must be based on sound scientific principles and have laboratory or pilot scale data that demonstrate efficacy.
- Scale up Potential - Solutions proposed must have a clear pathway to application on commercial ships within 1-2 years. Solutions already practiced in marine markets have higher value. The ideal partner would have expertise in system design, installation, and testing.
- Costs - solutions with lower installation and maintenance costs have higher value.
- Ownership - Solutions covered by patents have higher value. At a minimum, proposed solutions must not be prohibited by other patents in the field.

Keywords

Technology

01001001	Automation, Robotics Control Systems
01003025	Internet of Things
01004003	Applications for Transport and Logistics
02009007	Artificial intelligence applications for cars and transport
02009009	Sensors for cars and transport

Market

02003	Specialised Turnkey Systems
08002002	Industrial measurement and sensing equipment
09001007	Other transportation

NACE

H.50.1.0	Sea and coastal passenger water transport
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H.50.2.0

Sea and coastal freight water transport

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Open for EOI : **Yes**

Dissemination

Send to Sector Group

Maritime Industry and Services

Client

Type and Size of Organisation Behind the Profile

Industry >500 MNE

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

A partner is sought that can provide a warning system that can alert Tugmaster drivers of nearby vehicles and pedestrians. The preferred collaboration would be a joint development and piloting at one of the company's busy ferry ports, as needed, as a demonstration project. If the proposed solution is commercially available, technical support can be provided for defining the appropriate design and testing of a port-wide system.

Either a Joint Venture or technical cooperation agreement will be considered - depending on the best structure for both parties.

The company is looking for concise, 1 page, non-confidential proposals. The proposal should describe the technical approach and should ideally include information on the technological readiness of the proposal, any proof of concept data, reference to any peer reviewed publications, and potential route to commercialization.

Type of Partnership Considered

Technical cooperation agreement
Joint venture agreement

Attachments

tugmasters.png



Technology Request

Technology sought for automatic identification and tracking of vehicles and cargo with increased fire risk

Summary

A multinational shipping enterprise with a registered base in Scotland (UK) is seeking novel approaches to identify vehicles and cargo containers with increased fire risk as they board vessels such as ferries and roll-on/roll-off (RoRo) cargo ships. The company would also like to track where on the vessel these vehicles/containers are parked. The Scottish company is looking for partnerships via a commercial agreement with technical assistance or a technical cooperation agreement.

Creation Date	07 November 2017
Last Update	13 November 2017
Expiration Date	13 November 2018
Reference	TRUK20171107002
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/e4c77c9e-655b-4997-96b2-e76863d1db8e

Details

Description

A leading multinational shipping enterprise with a registered base in Scotland (UK) is looking for technology solutions that can be applied to their cargo and passenger ships that travel in all of the world's oceans. The company is actively involved with open innovation and is currently involved with several international projects.

The majority of fires that break out onboard vessels start in the cargo. Further on, it has been identified that certain cargo units have a higher fire risk. These units are defined as High Risk Cargo (HRC). Typical HRC units are refrigerated trailers, electrical cars, gas cars, mobile homes, etc.

Today HRC is identified either manually or by existing booking systems. However, there is no means of tracking the final position of the cargo when parked onboard in the cargo space. The company is seeking a reliable and cost effective way to automatically identify and track these HRC units.

The client is looking to partner with companies that have a solution or a potential solution that is near to market and is therefore looking for partnerships via a commercial agreement with technical assistance or a technical cooperation agreement.

The company is willing to consider technology from other end-application sectors that is capable of addressing the problem set out here. The client is flexible in the approach to required

development. Some budget may be made available for development and this could include being actively involved in the development of a solution, technical overview of the end application and provision of testing facilities.

Technical Specification or Expertise Sought

The company has investigated a number potential approaches to address elements of automatic identification and tracking of vehicles and cargo with increased fire risk. The company is now seeking an integrated approach to vehicle identification and tracking.

These approaches include:

- Using video recognition software to track units (analogous to facial recognition software that is nearly ubiquitous in Social Media applications)
- Remotely reading Vehicle Identification Numbers (VIN) to determine vehicle types (e.g., gas vs. electric cars)
- Using low cost tracking chips (RFID) or similar means to track cargo units
- Use and integrate cargo owners database systems

In the ideal case, the company would like to integrate this system with its existing booking system and vehicle loading plan system onboard. The company would need to be able to track the cargo units even when their registration number and VIN is not readily visible.

Evaluation Criteria:

1. Technical Viability-- Solutions proposed must be based on sound scientific principles and have laboratory or pilot scale data that demonstrate efficacy.
2. Scale up Potential—Solutions proposed must have a clear pathway to be applied on commercial ships. Solutions already practiced in marine markets have higher value. The ideal partner would be able to lead the design and installation of full-scale systems.
3. Costs—solutions would need to be reasonably cost effective to install and operate. Moreover, solutions should not require additional staffing or increase port turnaround time.
4. Ownership—Solutions covered by patents have higher value. At a minimum, proposed solutions must not be prohibited by other patents in the field.

Killer Issues:

Solutions will not be considered if, in the company's opinion:

- Installation and maintenance costs are prohibitive for broad application
- Proposals lack sufficient supporting laboratory or pilot scale data
- Solutions don't adhere to global maritime regulations

Keywords

Technology

01003001	Advanced Systems Architecture
01003008	Data Processing / Data Interchange, Middleware
01003025	Internet of Things
01004003	Applications for Transport and Logistics
10001003	Fire Safety Technology

Market

08002002	Industrial measurement and sensing equipment
08002005	Machine vision software and systems

09001007

Other transportation

NACE

H.50.1.0

Sea and coastal passenger water transport

H.50.2.0

Sea and coastal freight water transport

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Open for EOI : **Yes**

Dissemination

Send to Sector Group

Maritime Industry and Services

Client

Type and Size of Organisation Behind the Profile

Industry >500 MNE

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

Ref: TRUK20171107002

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

A partner is sought that can provide technologies for the automatic identification and tracking of vehicles and cargo with increased fire risk. The partner must be able to demonstrate laboratory or pilot scale data and be able to show a clear pathway to application on commercial ships.

The client is flexible in the amount of technical involvement in the type of partnership considered. Where some development is required for the specific application considered here, the product could be developed jointly or there could be some other commercial agreement for development with technical assistance.

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement

Attachments

Technology Request

Looking for a custom conspicuity tape manufacturer for traffic/outdoor use

Summary

An Israeli start-up is developing a hardware solution for autonomous driving & ADAS applications, requiring custom-manufactured high-intensity reflective conspicuity tape. A partner with a thin-film roll-to-roll polymer coating capability is sought to manufacture the tape to specific recipes. An R&D project to process many samples as a feasibility demo is envisaged. Cooperation through a research, technical or manufacturing agreement is sought with a large industrial partner.

Creation Date	01 April 2017
Last Update	13 November 2017
Expiration Date	09 November 2018
Reference	TRIL20170328001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/efb9eab5-35ff-4324-b663-87b9b4502aa2

Details

Description

Autonomous vehicles depend on machine learning. Computer vision systems struggle with complex geometries like articulated trucks, construction equipment, and outsize loads.

The Israeli company's solution to this challenge is a patented technology that enables improvement of machine learning in autonomous vehicles through advanced image processing. The technology under development relies on special conspicuity labels affixed onto various traffic entities to generate training data for artificial intelligence systems. The demand for quality training data can lead to large demand and manufacturing volumes of the conspicuity tape to be developed.

The Israeli company is an early-stage start-up venture based in the north of Israel.

Technical Specification or Expertise Sought

Seeking a manufacturer with a mature high-intensity microprismatic conspicuity tape product. A glass bead-based conspicuity product would also be desirable but not essential. Custom recipes for the integration of specific materials into the conspicuity product structure will be provided. Several design and manufacturing iterations are envisaged.

Stage of Development

Under development/lab tested

Comments Regarding Stage of Development

Physical proof of concept established. Seeking a custom conspicuity tape solution to build proof of system.

IPR Status

Secret Know-how, Patent(s) applied for but not yet granted, Granted patent or patent application essential, Exclusive Rights

Comment Regarding IPR status

Two applications pending

Keywords

Technology

01003012	Imaging, Image Processing, Pattern Recognition
01003016	Simulation
01004003	Applications for Transport and Logistics
02002002	Coatings
02002013	Moulding, injection moulding, sintering

Market

02006005	Big data management
02007016	Artificial intelligence related software
02007022	Software services
08002005	Machine vision software and systems
09001005	Motor vehicles, transportation equipment and parts

NACE

C.29.3.1	Manufacture of electrical and electronic equipment for motor vehicles
C.30.9.9	Manufacture of other transport equipment n.e.c.
H.49.3.1	Urban and suburban passenger land transport
J.63.1	Data processing, hosting and related activities; web portals
M.72.1	Research and experimental development on natural sciences and engineering

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Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2016

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Russian
Hebrew

Client Country

Israel

Partner Sought

Type and Role of Partner Sought

A large industrial partner is sought with a portfolio of visibility and conspicuity products, and an R&D capability. The partner should ideally operate in the polymer manufacturing, coatings, films, or automotive/traffic safety markets. The partner's role would be in the joint development of application-specific conspicuity tape followed by a manufacturing contract.

Type and Size of Partner Sought

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

Type of Partnership Considered

Manufacturing agreement
Technical cooperation agreement

Research cooperation agreement

Attachments

Technology Request

German company is seeking partners in environmental sensing for mobile robotics.

Summary

A German SME specialised in mobile robotics (e.g. for public transport) is looking for partners to carry out the testing of robots, software and sensor fusion to precisely image reality. Proof of concept studies as well as the development to market maturity of theoretical robotics concepts and concept designs for the automation of manual processes in highly secure environments for data transfer are major tasks. Research and technical cooperation agreements are sought.

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Details

Description

The German company counts with an ambitious team of highly qualified software developers and an experience of over 10 years in mobile robotics. They seek partners to jointly develop and optimize technologies for the testing and market launch of autonomous robots and software. The environment of a robot is simulated by virtually recreating objects which have to be correctly recognised by the robot by employing high-tech sensor technologies. High-level information fusion creates a precise image of the reality by combining pre-processed information from the sensors (real objects, not only data points). The collected data is subsequently transferred from the robot to a central data storage (e.g. cloud) where data is further processed and analysed. Subsequently reports are created, analysed and interpreted. The sought partner should be able to test theoretical robotics concepts and concept designs to jointly development driving and flying robots to market maturity. Further tasks to be tackled involve the optimisation of concept designs for the automation of manual processes with robots and the development of security concepts on how to connect robots to Internet of Things (IoT) interfaces. Partnerships in the frame of research and technical cooperation agreements are sought.

Technical Specification or Expertise Sought

Potential partners should be familiar with the following technologies:

- software frameworks, e.g. Robot Operating System (ROS)
- use of sensors: radar, mono cameras, Light Detection and Ranging (Lidar), odometry with inertial measurement units (IMU), Global Positioning System (GPS)
- implementation on embedded platforms: Linux/Yocto, Intel, ARM-based processors

Keywords

Technology

01001001	Automation, Robotics Control Systems
01003024	Cloud Technologies
02002016	Microengineering and nanoengineering
02003001	Process automation
02010001	Planning and security

Market

01004008	Other data communications
02006004	Data processing, analysis and input services
08002004	Robotics
08002007	Other industrial automation
09001007	Other transportation

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
J.63.1.1	Data processing, hosting and related activities
M.72.1.9	Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

ED Research Co. Ltd.

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Open for EOI : **Yes**

Client

Type and Size of Organisation Behind the Profile

Industry SME 50-249

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
German
French

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

The project will be carried out in close dialog between the partners with an intense transfer of knowledge. Long-term collaborations are envisaged as the technologies to be developed will be applicable in numerous applications (driving flying and diving robots) in an emerging market.

Partnerships can be set up in the frame of research and technical cooperation agreements. The partner should be willing to take over one or more of the following tasks:

- development and/or production of prototypes
- proof of concept studies
- testing/development of robots, software and sensor fusion
- testing under real-life conditions or in pilot plants
- viability studies
- development to market maturity

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Attachments
