

#### LOOKING FOR...

BUSINESS COOPERATION ABROAD?

**EU FUNDING?** 

COMMERCIAL, TECHNOLOGICAL OR RESEARCH OPPORTUNITIES IN EUROPE AND BEYOND?



# Aeronautics and Space Sector Group

The Network's Sector Groups organise brokerage events to help you reach technology transfer or cooperation agreements with other companies from your sector. They can also advise you on how to find partners to apply for EU-funded joint research projects.

#### Links with other innovation stakeholders

The Sector Groups often form the link between the Enterprise Europe Network and other European actors and projects, including European Technology Platforms, Europe INNOVA projects and Business Innovation Centres (BICs) as well as research-driven clusters and National Contact Points of the European Commission's Horizon 2020. If you are part of any such initiative and would like to cooperate with the Enterprise Europe

Network in a specific sector, please contact the coordinator of the respective Sector Group.

#### Who we are?

http://een.ec.europa.eu/about/sector-groups/space-aerospace











**Business and Technology Partnerships In Europe** 

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### **1. TECHNOLOGY REQUESTS**

TECHNOLOGY	SUMMARY
Advanced skills in manufacturing	A French company invented worldwide patented devices aiming at reducing
aeronautical device or wing turbine	induced drag and vortex on wing tips. The company is looking for a specialist in
products in composite	composite – manufacturer of moulds pieces in composite having specific
	knowledge in products for the aeronautic and wind turbines.
	More information
	Ref: 13 FR 38m5 3SLV
Wheel change dolly for aircraft	A French company specialized in aircraft maintenance and surface treatment is
maintenance	looking for a provider of mechanical wheel change dolly for aircrafts. The French
	company has several clients among the most prestigious airline companies (Air
	France) and needs to remove aircraft wheels for maintenance and to replace them using a single operator.
	More information
	Ref: 09 FR 38m9 3F64
Review of Technology for Avionics	The division of an Indian Avionics company is interested in a partner to perform a
Manufacturing Unit	technical review of the existing facilities of the Indian company and suggest
	improvements with new technologies for replacement or augmentation and also
	suggest/prepare a technology road map for the future.
	More information
	Ref: TRIN20131106001
Development of innovative drive	An innovative German start-up manufactures air cushion crafts for multifaceted
and control system for hovercrafts	applications. It will be the first company in Germany going into serial production!
	The company is looking for a partner interested in jointly developing an innovative
	system that is capable of driving and steering those hovercrafts.
	More information
	Ref: TRDE20131022001
Integrated System for UAV support	An Italian SME is looking for a partner for implementation of a Collision Avoidance
	system for UAV/RPAS (Unmanned Aerial Vehicle/ Remotely Piloted Air System).
	The aim is to design an integrated system capable to avoid collisions with
	cooperating/non cooperating vehicles. They are looking for partners for technical
	collaboration with expertise in: Sensors; Data fusion algorithms;
	simulation/Emulation; UAV flight operation; Control Center implementation;
	Communication systems among UAVs.









	More information Ref: TRIT20140129001
Avionics Terminal in Ku/Ka band	An Italian SME is looking for an industrial partner with the aims to development of an Avionic Terminal prototype (and in particular the relevant antenna) for small aircraft or Unmanned Aerial Vehicle (UAV) operating in Ku/Ka band. The terminal provides DVB RCS2 airborne communication and control services. The Ku/Ka band is considered in order to secure capability of airborne communications, as a function of available satellites in the various operational areas worldwide. <u>More information</u>
Turbine in-situ combustion	Ref: TRIT20140505002A Technical University from Romania is looking for research partners in the field of Space and Aerospace applications. Their project proposal is focused on the analysis and experimental quantitative assessment of the transport phenomena in turbine combustor power systems. The partners sought are innovative SMEs and R&D performers in the field of Space and Aerospace applications.More information Ref: 12 RO 662C 3RJG
Aircraft Wake Turbulence Prediction	A Technical University from Romania is looking for research partners in the field of Space and Aerospace applications. The aim of the research is to develop and validate an improved numerical model for the simulation of the near wake occurring downstream a wing, the near wake breakdown and the formation of the two counter rotating vortices. The partners sought are innovative SMEs and R&D performers in the field of Space and Aerospace applications in EU/Intern. R&D Programs.
	More information Ref: 12 RO 662C 3RJN









### **2. TECHNOLOGY OFFERS**

OFFER	Summary
Aerospace and Oil & Gas trade intermediary services	An Italian company specialized in Aerospace, Oil & Gas, Chemicals and Services is offering its services as a trade intermediary. This Italian SME has a unique capability of sourcing, negotiating, purchasing and expediting on a real time basis also within the American market place. It can also offer value added back office services to all interested partners. <u>More information</u> Ref: BRIT20140122001
Advanced numerical modelling and simulations in thermal dynamics	A Finnish engineering and consultancy company developed specialized expertise regarding heat transfer simulations. With these methods complex heat transfer problems can be solved effectively. The company is interested in commercial agreements with technical assistance. The company looks also for technical cooperation for testing new operation and adaptation to specific needs.
	More information Ref: 12 FI 30I2 3R2X
Fibre steering technology	A Dutch company is specialized in design and manufacturing of advanced composite structures for civil, maritime and aerospace related applications. In cooperation with a Dutch University of Technology and based on the technology of fibre steering, a design of a composite structure was developed that can withstand high vibration and buckling loads. The Dutch company is interested in partners for technical cooperation in the aerospace sector and producers of e.g. high-speed machine components. <u>More information</u> Ref: 11 NL 60AH 3MYN
SPF: method for economic manufacture of thin walled three dimensional titanium structures	A German SME active in super plastic forming and diffusion bonding of several materials (titanium, alu) is searching for partners for the integration of their processing technology into new products. The processing technology is suitable for applications in aircraft and automotive industries, engine production, medical engineering and general industries. The company is searching for partners for technical cooperation, manufacturing agreements and commercial agreements with technical assistance. <u>More information</u> Ref: TODE20140214001
Fireproof warm temperature composite materials	A French SME has developed new process technologies in order to manufacture warm temperature one-piece composite materials up to 400°C, associated with a fireproof (1200°C - 15 min) lightweight material. The company is looking for technical cooperation with industrial partners.









	Ref: TOFR20140317001
Small Turbojet design and development	An Italian SME that designs and develops small turbojet and turbo-shaft engines, is currently developing a turbojet in the size of 175 daN thrust and a turbo-shaft in the range of 120 kW for very light aircraft (VLA), energy generation systems and Unmanned Aircraft Vehicles (UAV). The Italian SME is looking for aircraft and UAV manufacturers interested to install these products on their aircrafts. <u>More information</u>
GNSS Galileo Code Receiver (GCR)	Ref: TOIT20130926002A Portuguese Aerospace Engineering company delivers advanced design solutions and turn-key space SW systems. The company offers Galileo Code Receiver, - an advanced GNSS receiver targeting cost effective, high navigation accuracy (down to 20cm) requirements. The company is open to set up technology licensing agreements with end users and system integrators (OEM and Value Added Resellers) willing to take advantage of early access to the technology for new applications or improved systems.More information Ref: TOPT20131105001
Revolutionary Aluminium Foam material	This open-cell Aluminium foam has versatile structure (pores 1-10mm, porosity 65- 85%) and processing (various shapes, seamless integration of e.g. Al sheets or Cu tubes). Key features are superior heat extraction (fluid passing through), excellent shock absorption and acoustic damping. Developed in Switzerland, it will be manufactured in France by a global supplier serving the industrial, electronics, automotive and aerospace sectors. Industrial partners for co-developing applications are sought. <u>More information</u> Ref: 12 CH 84FB 3QIH
Continuous production of thermoplastic composite profiles for the automotive/aerospace sector	A Dutch company is specialized in design and manufacturing of advanced composite structures for civil, maritime and aerospace related applications. Based on technology to produce thermoplastic composite pipes a working concept for composite square profiles has been developed. The goal is to continuously produce square profiles made with carbon fiber and a thermoplastic matrix material. The Dutch company is interested in partners for technical cooperation in the automotive/aerospace sector.
High performance drones and remotedly piloted aircraft systems, tailored for complex tasks in the field of defence, police or maintenance of large industrial and petrochemical installations and offshore applications.	A Dutch technological spin-off from the faculty of Aerospace Engineering, has developed drones for complex surveillance and inspection tasks. The company has competence in the field of defence, police and maintenance. It can tailor the drones to various extreme client demands by tuning the control system, the sensors used, temperature resistance. The company is looking for end users for partnerships and technical cooperation in the frame of commercial agreements with technical assistance.









	More information
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	Ref: TONL20140523002
Engineering, manufacturing and testing of composite structural parts for space and aerospace	A Dutch SME is specialized in development, manufacturing and testing of composite parts for radar covers, aerospace structures, lightweight complex geometries. The company offers its expertise in engineering, manufacturing and RF-testing. The company is interested in commercial agreement with technical assistance with manufacturers or maintenance partners in high-end markets with high requirements and low volume. Manufacturing of obsolete or discontinued components is a possibility too.
	Ref: TONL20140513001
High atmosphere research rocket	A small Dutch university spin-off company developed a rocket system for easy and low cost probing of the atmosphere layers between 30 and 120 km. The rocket features a powerful solid fuel booster that enables to propel a aerodynamically stable dart-shaped payload compartment for the sensor package to thigh altitudes. The company seeks cooperation with atmosphere research institutes in the frame of e.g. a joint venture agreement or a commercial agreement with technical assistance. More information
	Ref: TONL20130918001
Additive manufacturing, 3D printing of technical metal parts	A Dutch research institute is developing a 3D printing technology capable of producing technical metal parts directly from 3D CAD data. The parts are built 'layer- by-layer' using metal powder which is selectively melted into a solid part. The challenge is to predict and achieve the right microstructure structure and homogenious properties in the final material. The institute develops own and client- specific metal blends. The Dutch partner is interested in technical cooperation projects.
	Ref: TONL20140509002
Innovative multicamera measuring system for contact- less measurement	An Italian innovative SME, as part of its own research activities, has developed an innovative methodology for contact-less measurement through a multicamera measuring system, offering high measurement performance and making use of low-cost components. The SME is looking for industrial companies interested in the development of products to be marketed for space applications and industrial automation.
	More information
	Ref: TOIT20140108001
Gamma-ray focalization technology for nuclear diagnostic medicine and radiotherapy	A consortium of universities and companies, led by a big space company is expert in y-ray focalization. Relevant improvement in y-ray focalization efficiency is now expected by a new material and robotized fabrication methodologies, conceived for the next generation of astronomical orbiting observatory. y-ray focalization can open a new perspective in the field of nuclear diagnostic medicine and radiotherapy.









	Commercial and technical cooperation is sought.
	More information
	Ref: 12 IT 52T2 3012
Virtual environment research	A big space company in Northern Italy has developed a software based on open- source components which allows to simulate different 4D (3D + time) scenes. The company is interested in finding "Partners Users" who have the need to conduct multidisciplinary collaborative design sessions, training/demonstration sessions, and products performances evaluation in the target environment, by exploiting the highly communication immersive interactive capabilities of Virtual Reality.
	More information Ref: 12 IT 52T2 3O1E
Advanced optimization system to increase efficiency and cost-effectiveness in the field of resource management, logistics and transports	The technology is based on an R&D (ESA funds) activity carried out by an Italian space engineering company. Thanks to the acquired experience the company can provide an advanced optimization system to tackle the demanding resource management, logistics and transport tasks,both in industry and tertiary sector. The system aims at increasing solution efficiency, reducing time consumption and costs for complex applications. Partners for using/co-developing an ad hoc version of the system are sought.
	More information Ref: 12 IT 52T2 3014









#### 3. ESA FOCUS

ESA: Wide field four mirror	An european organisation is interested in licensing a novel design for an ultra-wide
telescope using off-axis aspherical	field of view telescope. These types of devices are capable of imaging fields of view
mirrors.	of over 60x60, being usually used in the visible and infrared spectral domain for
	earth and planetary observation and the detection of fast moving faint objects.
	This invention provides such a device, with high imaging performance and a flat
	focal plane, surpassing prior art offerings. License agreement is sought.
	More information
	REF: 12 NL 1D1D 3R5E
Novel voltage regulator converter	An international organisation presents an invention which offers the ability to
without switching losses.	develop very high-efficiency galvanically isolated converters – of the order of 98-
without switching losses.	
	99% when using state-of the art technology and rectification – while maintaining
	small size and mass. The invention uses a novel technique to integrate the
	regulation of the converter output whilst maintaining zero-voltage and zero-
	current switchovers in the main switching devices, leading to zero switching loss. A
	licence is searched.
	More information
	REF: 13 NL 1D1D 3RZ5
Multi-wire feeder method and	An international organisation based in NL is interested in licensing a system and
system for alloy sample formation	method for the synthesis of alloy samples having defined compositions,
and additive manufacturing	combinatorial alloy sample series and libraries, and shaped alloy components
5	through the use of a directed heat source coupled to a multi-wire feed-head. The
	wires being fed to the zone targeted by the heat source can have controlled
	compositions in order to accurately predict the final product. License agreement is
	sought.
	Jought.
	More information
	REF: 13 NL 1D1D 3RZH
ESA: Method, device and system for	An international organization has developed a method, device and apparatus for
compressing time series data.	compressing time series data. This technology can be used in transport, electric,
	communications and other industries with remotely controlled systems to perform
	data analysis of housekeeping telemetric data with a reduced cpu and bandwith
	usage. License agreement collaboration is sought.
	More information
	REF: 12 NL 1D1D 3OKC
Method and apparatus for	An international organisation based in NL has developed a new way to diagnose
monitoring an operational state of a	anomalous or unexpected behaviour on systems, through the analysis of that









system on the basis of telemetry	system's telemetry data. For applications where a big number of parameters
data.	(20.000 or more) are relayed for analysis, this methodology presents clear
	advantages over previous monitoring methods, providing earlier anomalies
	detections and reducing false positive events. License agreement collaborations
	are sought.
	Mana information
	More information
	REF: 13 NL 1D1D 3RZD
ESA: Method for assembling two or	An international organization has developed a novel methodology for assembling a
more mirror plate stacks into a rigid	robust optical unit, consisting of 2 or more optical mirror plate stacks; which are a
unit	plurality of mirror plates stacked on a base plate. X-ray metrology is used to align
	the individual optical mirror plates into a stack and the stack themselves. A licence
	agreement is sought.
	More information
	REF: 12 NL 1D1D 3OAE
Electrical power supply converter	An international agency based in NL is interested in licensing an electrical power
	supply converter coupled to a source of electricity and to an electricity feed line
	such as a bus. The novelty of this system lies on the capability to perform the
	functions of shunt, battery charge regulation and battery discharge regulation with
	only two active switches. License agreement is sought.
	More information
	REF: 13 NL 1D1D 3RZ1
Method and means for connecting	An international organisation based in NL is offering an innovative method for
thin metal layers	bonding two thin metal layers applied to flexible substrates. This connection is
	achieved by micro (hollow) rivets, providing a mechanical and electrical link
	through the use of modern laser technology. This method is reliable and doesn't
	require large contact areas, effortlessly providing a mechanical and electrical bond.
	License agreement is sought.
	More information
	REF. 13 NL 1D1D 3RZC
Mathed and annavature for	
Method and apparatus for	An international organisation based in NL is interested in licensing a system and
combinatorial alloy discovery and	method for the synthesis of combinatorial alloy libraries. This process describes a
development using high energy	high throughput screening technique for the materials engineering field, allowing
electron beams.	the preparation and analysis of several different alloys in a single run. This is
	achieved through the use of a high energy electron beam to melt, mix and control
	the cooling of two or more elements. License agreement is sought.
	More information
	REF: 13 NL 1D1D 3RZF
Automatic Identification System	International Organisation based in NL is offering a licence for an innovative
Receiver And Satellite Payload	Automatic Identification System (AIS) receiver patent. Common AIS receivers
Comprising The Same	which are usually used on ships have a message detection capability which is more
	than one order of magnitude worse for the same channel conditions. This
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	in sustiue AIC sustant comparison on bound detection and shownal estimation
	innovative AIS system comprises enhanced detection and channel estimation
	algorithms which also make it suitable for applications with high Doppler
	detections from satellite, airplanes, etc
	More information
	REF: 13 NL 1D1D 3RY6
ESA: Beam-forming network for an	An international organisation based in Netherlands is interested in licensing a
array antenna and array antenna	Beam-Forming Network (BFN) for an array antenna, and to an array antenna
comprising the same	comprising such a beam-forming network. The novelty of this network lies on the
	capability to outperform state-of-the-art architectures in terms of the number of
	High Power Amplifiers (HPAs), and in terms of scan loss performances within field
	of view.
	of view.
	More information
	REF: 13 NL 1D1D 3RR4
Method to determine the integrity	An International Organisation is offering an innovative mathematical tool for
of positioning information in a	accurate, simpler and fully controlled determination of the positioning information
Global Positioning System	provided by Global Positioning System (GPS). Such tool can be applied in any
	navigation system where safety is a top priority, for example aircraft landing
	phase. Such advanced algorithm can significantly enhance accuracy of civil
	aviation, harbor docking, ship and rail navigation and transportation procedures.
	License is offered.
	More information
	REF: 12 NL 1D1D 3OSO
ESA: Array antenna with controlled	An international organization has developed an array antenna with controlled
radiation pattern envelope	radiation pattern envelope and the method to manufacture it. This technology can
manufacture method	be used in broadcasting, naval, space, weather research, optics and radio
	frequency identification industries. License agreement collaboration is sought.
	More information
	REF: 12 NL 1D1D 3ORT
Sensors for precision measurements	A UK company has developed optical sensors for harsh environments. High
in harsh environments	temperature pressure sensors for gas turbine combustors are enabling new
	approaches for carbon reduction. Innovative optical sensor solutions are being
	developed for aircraft landing gear and fuel systems and trials are being conducted
	for point pressure sensors for oil and gas down-hole and pipeline applications.
	They seek licencing and technical agreements.
	More information
	Ref: TOUK20140217001









#### 4. SAVE THE DATE: our event

- AIR-DAYS 2014 (Lisbon, 6-9 October)



AIR DAYS 2014 is organized by FCT (Fundação para a Ciência e a Tecnologia), CEC (Chamber of Commerce and Industry of Centro), Portuguese Ministry of Defence (MDN) and the Portuguese Association of Space and Defence Industry (AED) and actively sponsored by *Enterprise Europe Network Aerospace Group* (EEN ASSG), ETNA+ transport NCP network, COSMOS+ Space NCP network and CARE (Clean Aerospace Regions) Project. This is a unique opportunity for brokerage and international networking among industry and research centres from all over Europe.

Info and registration <a href="http://www.b2match.eu/air-days2014">http://www.b2match.eu/air-days2014</a>

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- European Trade Fair and Forum for Composites (Düsseldorf, 8-9 October)



International Business Meetings 9th European Trade Fair and Forum for Composites, Technology and Application

On the occasion of the 9th European Trade Fair and Forum for Composites, Technology and Application and the 10th World Trade Fair and Conference for Aluminium in Düsseldorf, Germany, ZENIT GmbH and the Enterprise Europe Network will organise an international Brokerage Event. Both the participants of the COMPOSITES EUROPE and the ALUMINIUM 2014 are invited to join!

Info and registration http://www.b2match.eu/composites2014









- <u>Blue Economy & Geoinformation Services - Eurisy</u> (Bari, 20-21 November)



This conference will bring together Local and Regionals authorities in Europe, interested in maritime issues and blue economy. Operational cases of satellite applications in coastal regions will be showcased.

Info and registration <a href="http://www.eurisy.org/event-Bari2014/About">http://www.eurisy.org/event-Bari2014/About</a>









### 5. Other info

#### The 3rd International Space Research Conference



The European Commission invites you to attend two international high-level space research events that will be taking place from 15 to 17 September 2014 in Rome, Italy. Do not miss these excellent opportunities to discover the results of the FP7 projects (The 3rd International Space Research Conference on 15-16 September 2014) and to learn more about the new EU Framework Programme for Research and Innovation (The Horizon 2020 Space Info Day on 17 September 2014).

Info and registration https://letsembracespace.teamwork.fr/

- TENDER! NEW SPACE APPLICATIONS SUPPORTED BY OPEN DATA AND CROWDSOURCING

The European Space Agency, under its ARTES 20 Integrated Applications Promotions Programme, is challenging innovators customer-facing to propose new applications that combine two or more space assets to provide commercially sustainable services supported by Open Data and Crowdsourcing. These space assets can be Earth Satellite Observation, Navigation, Satellite Communications, and Human Space flight technologies.



Find more info here





