

Sector Group Materials Newsletter

Dear Reader,

welcome to this edition of the Sector Group Materials Newsletter of the Enterprise Europe Network!

In addition to new international Technology Offers and Requests, as well as new Business Opportunities, this edition provides you with two good practice examples of Industry 4.0 practices in the materials sector. Following the latest trends, it is more important than ever that businesses follow up the new developments regarding Industry 4.0.

As usual, you will also find the upcoming international brokerage events, organized by our worldwide Enterprise Europe Network partners.

We would like to point out that the Horizon 2020 Work Programme 2016-2017 has been updated, which has brought novelties and a budget increase of 51,6 million EUR to the SME Instrument.

Please do not hesitate to contact us, if you wish further information or support.
Enjoy reading this newsletter!

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een.ec.europa.eu



About Sector Group Materials

The sector group is a cornerstone in the Enterprise Europe Network (EEN) enabling innovations and building bridges between material research and supply and the other Sector Groups. The Sector Group Materials connects active research, technology and business partners in the wide diversity of the materials sector.

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Sector Group Materials Members



Cooperation Offers and Project Partner Search

The database with all cooperation offers and the list of the local EEN contact points are available at een.ec.europa.eu. Please choose the cooperation offers you are interested in and contact your local EEN contact point to receive more information. We will help you to contact potential cooperation partners.

Industrial Processes / Manufacturing

Offer: Mathematical and numerical modelling of processes in the field of heating (TODE20160809002)

A German university institute offers a wide range of services in the field of heating by electrical sources and electromagnetic material processing. The main research fields are heating by induction, conduction, dielectric heating energy savings and renewable energy. It offers mathematical and numerical modelling of processes and practical experiments. The institute is looking for partners interested in cooperative research and development agreements in-house research and technical cooperation.

Offer: A manufacturing technology of micro wave absorbing ferrite sheet for NFC (TOKR2016020300)

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

Request: Looking for a specific machine for processing metal sheets (TRCZ20160809001)

A Czech SME specialized in metalworking is looking for a machine availability to produce smaller series more economically than current expensive stamping. The machine sought might be similar to the machines used for manufacturing of printed circuit boards or a machine combining punching and laser processing. A commercial agreement with technical assistance is sought.

Offer: A Korean institute is seeking a partner for technology transfer on a finishing apparatus with electron and ion beam, which can improve the surface Integrity (TOKR20160714001)

A Korean research institute specializing in research on industrial technologies has developed a finishing device using electron and ion beam related to finishing process of the surface. This eco-friendly finishing technology enables time-saving of the finishing process and easily controls motion system. This also handles the workpiece simpler than conventional mechanical finishing equipment. The institute is interested in a licensing agreement for its technology transfer.

Offer: 3-D woven, metallic micro-lattice materials for damping applications (TOUK20160628004)

A US - UK research group has developed innovative 3-D woven metallic micro-lattice materials which damp

(attenuate) vibrations produced during the work cycle of machinery and engines. Unlike existing solutions, the materials remain functional at extremely high temperature and exhibit damping that is frequency independent. The group is seeking partners to incorporate this technology in commercial and/or military applications with their technical assistance.

Offer: 3-D woven lattices for drag reduction of bluff bodies (TOUK20160628003)

A UK university spin-put has developed an innovative 3-D lattice skin that reduces drag, noise and vibrations of bluff bodies such as landing gears, cargo trucks, oil and gas riser pipes. The 3-D lattice skin changes boundary conditions from no-slip to a 'partial' slip as the flow can move at the boundary between the external flow and the permeable skin. The university is looking for partners for manufacturing agreement or commercial agreement with technical assistance.

Offer: Innovative process to obtain light and cheap aluminum forgings with improved performance against corrosion (TOES20150514002)

A Spanish company has developed a process to obtain aluminum forgings that are lighter and cheaper than traditional copper alloys, and with improved performance against corrosion. They can be used in any environment, even those with high humidity conditions: bathrooms, nautical, automotive, exterior building materials, ... They seek partners to incorporate this process in their production and to market the resulting forgings.

Ceramics / Thermodynamics

Offer: High ion conductivity materials for lithium secondary battery (TOKR20160705001)

A Korean SME has developed the solid electrolyte made of sheet and powder type ceramics. The invented solid electrolyte has high-ion conductivity, safety, thermal stability, and high energy density. This Korean SME is looking for companies or research institutes related to secondary battery industry for technical cooperation agreements.

Business Offer: Metallic-ceramic composite panels for protection from forcible entry (BOUK20160427001)

A UK based research group has developed metallic-ceramic composite panels made up of a pattern of ceramic and metallic inclusions, sealed in a metallic foam core, and protected with external stainless steel face sheets. The novel security product was tested against and defeated the latest generation of cutting tools used to breach security barriers. The group is looking for distributors that can supply the solution to end users or companies wishing to buy a production license.

Request: High performance low micron fibres sought to improve thermal performance of insulation products (TRUK20160527001)

An internationally trading UK SME looks to improve the thermal performance of their insulation products to greater than λ 0.032. It seeks theoretical and practical support

from research institutions and materials manufacturers to mix their current glass fibre thermal insulation with high performance, low micron, fibres. The company seeks new material opportunities with which to conduct research studies resulting in technical cooperation and possibly joint ventures with suitable partners.

Offer: Biodegradable materials with improved thermal resistance and acoustic insulation properties (TOES20160524001)

A Spanish technological centre expert in polymeric materials processing offers their know-how in the development of bio-fibres with improved thermal properties to produce 3D-fibre formed parts that can be applied in acoustic and thermal insulation. They look for partners for a technical and/or research cooperation agreement, to adapt the materials to specific requirements and/or develop new materials for new applications.

Textiles

Request: Production of cyclodextrin polymers at industrial scale to encapsulate textile dyes (TRES20160419001)

A Spanish technological centre has developed a process to recover the dyes from the waste water of textile industries encapsulating them in cyclodextrins. A semi-industrial scale pilot plant has been set up and currently they look for partners capable of producing cyclodextrins polymers in the amount needed to be used as adsorbent at industrial textile scale. A technical cooperation agreement with the industrial partner is foreseen, and then a manufacturing agreement with end-user industries.

Recycling / Energy / Environment

Offer: Seeking licensing partner for novel process to remanufacture waste emulsion paint back into premium quality paint (BOUK20160527001)

A UK company has developed an innovative system for the recycling of leftover/waste water-based emulsion paint and is seeking to license the process to interested European companies. They are seeking entrepreneurs, preferably with a background in waste or factory management and/or paints, to form a licensing agreement with the UK company, who will provide technical support.

Building / Construction

Request: Materials replacing aluminium and wooden frames (TRPL20150521003)

A Polish SME deals with school and office products. The company is looking for materials which can replace aluminium and wooden frames in tables. The material should meet the technical parameters of the frames. Cooperation based on the license agreement and technical cooperation agreement is desired.

Offer: Use of advanced concretes with improved performance properties for construction projects and blue growth applications (TOES20160531001)

A Spanish SME expert in special concretes provides integral service in projects that require advanced concretes, designing

and selecting the most appropriate according to required performance. They seek partners from civil engineering, construction, industrial and blue-growth sectors for a technical or research collaboration. The goal is to explore new sectors where very-high and ultra-high-performance fiber-reinforced concretes (VHPFRC & UHPFRC) advantages add value to clients and stakeholders.

Offer: An innovative and patented masonry construction technique is available for construction companies interested in establishing a manufacturing agreement (BOIT20160720001)

An Italian SME, active in the construction field and specialized in prefabricated buildings and systems, has developed an innovative and eco-friendly masonry technique. It is suitable for any typology of building and ensures advantages for thermal insulation, sustainability, seismic safety, sound-proof, non-combustibility, time and costs. The company is looking for construction companies located in Austria, France, Germany and Switzerland to establish a manufacturing agreement.

Upcoming Events

Brokerage Event for the Plastic Industry, Kunststoffenbeurs 2016, 29. September 2016 (Veldhoven, NL)

Enterprise Europe Network Netherlands invites you to the international meet & match event at the Kunststoffenbeurs 2016. The goal is finding new relevant contacts in the whole production chain of plastics processing.

More information: <https://www.b2match.eu/kunststoffen2016>

Brokerage Event for the Fashion and Textile Industry BALTIC FASHION & TEXTILE 2016, 30. September 2016 (Vilnius, LT)

This fair has become an international Baltic States and Eastern European fashion and textile business forum which is expected to accumulate over 400 participants from 22 countries and to attract more than 11000 professional visitors from 25 countries. More information: <https://www.b2match.eu/balticfashion2016> or contact Rasa Milinaviciute (+49 611950178473, rasa.milinaviciute@cci.lt).

Academia meets Industry: Nanotechnology & High-Energy Physics - From Material to Innovation, 20./21. October 2016 (Darmstadt, DE)

Enterprise Europe Network Hessen offers a matchmaking event as a part of the programme during the conference „Academia Meets Industry: Nanotechnology & High-Energy Physics - From Material to Innovation“, organised by GSI Helmholtz Center for Heavy Ion Research. More information: <https://www.b2match.eu/nanostructureanalytics2016> or contact Margarete Kessler (+49 611950178473, margarete.kessler@htai.de).

China-EU B2B Event 2016, 24. - 26. October 2016 (Changsha, CHN)

The purpose of 'China-EU B2B events' is to arrange face-to-face meetings between enterprises from Europe and

Hunan (China). In addition, participating companies will be offered to attend workshops, training sessions and business audits. "China-EU B2B events" and "Changsha transformation of scientific and technological achievements trade fair" will be held in the same period. Main sectors include biological and health industry, intelligent manufacturing, electronic information and communication, construction materials and environmental protection. More information: <http://2016b2bchangsha.hnccpit.org/> or contact Sheryl Ling (+86-731-85958888, sonic.dk@163.com).

Re-industrialisation of the EU 2016, 27. October 2016 (Bratislava, SK)

Re-industrialisation of the EU 2016 is a matchmaking event focused on research, innovation or business cooperation in the field of new materials, manufacturing, processing, nanotechnology, and biotechnology organised in the frame of the Slovak EU Presidency. More information: <http://www.reineu2016.eu> or contact Ivan Filus (+421.2.5441.7515, filus@bic.sk).

ECCP2016, European Conference and matchmaking on thermally and electrically Conductive Polymers and composites: from lab to market, 8.-10. November 2016 (Alessandria, IT)

The conference focuses on scientific results, technical solutions and new market applications for conductive polymers and composites. ECCP2016 will show the most suitable technical solutions to optimize thermal and conductive properties of plastics. A guided tour to labs and technical areas will be organized to show to participants some of the most interesting innovations in the plastic materials sector. More information: <https://www.b2match.eu/eccp2016> or contact Katia Costa (+39 011 5669 236, k.costa@pie.camcom.it).

Industry 4.0 Good Practice

Material flow simulation in a plant

Re-/Designing an industrial plant is a highly cost-relevant process. Workflows and efficiencies have to be planned, input and output logistics calculated. SimPlan, an SME in Maintal close to Frankfurt, has developed a suitable simulation software for these processes and not only used and improved them in several EU projects, but works with automotive OEMs and other bigger and smaller players to help them implement their industry 4.0 solution. www.simplan.de, EEN-Contact Olaf Jüptner (olaf.jueptner@htai.de).

Inline quality control and parts handling

Speed and avoiding errors may be perceived as contradictory – in production they are essential. Isra Vision, a Germany-listed company headquartered in Darmstadt, developed 3D surface inspection and pattern recognition systems that

e.g. detect errors in films and foils as well as in automotive glass or solar panels. These inline inspections are high-speed processes for error-free production. The company also has long-standing experience in robot development and solved problems like correct high-speed picking of 3D objects (like screws) from containers – another solution for speeding up the production process. www.isravision.com, EEN-Contact: Olaf Jüptner (olaf.jueptner@htai.de).

EU News

SME Instrument: € 51.6 million more to invest in innovation in 2017

The Horizon 2020 Work Programme 2016-2017 has been updated, bringing novelties to the SME Instrument programme. The SME Instrument budget has been increased to € 437.5 million to be invested in innovation of small and medium-sized businesses. The budget increase for 2017 concerns four topics:

- Healthcare and biotechnology € 35 million
- Sustainable agriculture, forestry € 5.68 million
- Blue growth € 2.42 million
- Climate action, environment, raw materials, resource efficiency € 8.5 million

Source: <https://ec.europa.eu/easme/en/news/sme-instrument-516-million-more-invest-innovation-2017>

Energy Union and Climate Action: Driving Europe's transition to a low-carbon economy

The European Commission has presented a package of measures to accelerate the transition to low-carbon emissions in all sectors of the economy in Europe. The Commission is working to keep the EU competitive as the global social economic model changes following the impetus to move towards a modern and low-carbon economy set by the Paris Agreement on climate change. The proposals set clear and fair guiding principles to Member States to prepare for the future and keep Europe competitive. This is part and parcel of the Energy Union and a forward-looking Climate Change policy. Source: http://europa.eu/rapid/press-release_IP-16-2545_en.htm

Innovation performance compared: How innovative is your country?

On the 14th of July the European Commission released the 2016 results of the European Innovation Scoreboard, the Regional Innovation Scoreboard and the Innobarometer. The main findings are that EU innovation is catching up with Japan and the US, Sweden is once again the innovation leader, and Latvia has become the fastest growing innovator. Source: http://europa.eu/rapid/press-release_IP-16-2486_en.htm

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