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NEWSLETTER - SG Materials

Editorial

Dear reader.

it is high peak for fairs and conferences!

In our march / april edition we invite you to take part in several events we organise in order to help you to find new international contacts: present your competences and cooperation ideas

- at our conference and matchmaking event Biobased Economy in Potdam / Germany in April,
- at the matchmaking event **Technology Cooperation Days** / Hannover Fair (Germany in April)
- at HISPACK in the Matchaking "Innovation packaging solutions for SMEs food producers" / Barcelona in April.

As usual you can find information on technology offers & requests, past events, on (new) European research funding and a regional profile of one of our group member.

Enjoy reading and whenever something is interesting for you, don't hesitate to contact us.

Annelies Bruhne

Enterprise Europe Network Niedersachsen Leibniz Universität Hannover

Materials Sector Group

Is a cornerstone in the Enterprise Europe Network enabling innovations and building bridges between material research & supply and the other sector groups. The Sector Group Materials connects research, technology and business partners active in the wide diversity of the materials sector.





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> The views in this publication are those of the authors and do not necessarily reflect the policies of the European Commission. Contact: Mrs. Annelies Bruhne annelies.bruhne@zuv.uni-hannover.de

Materials













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Recent technology offers and requests / project partner searches

All technology offers and requests of the Enterprise Europe Network are available in full version under http://een.ec.europa.eu. Please contact your local EEN partner for more information and contact data.

Industrial Manufacture Processes

Request: Service life enhancement of industrial valves through plasma coating (Ref: TRDE20141119001)

A German SME develops and constructs valves for industrial applications, especially for applications under heavy load. Particularly the sealing face of valves is subject to heavy stress, varying depending on the individual functional principle.In the case of the metal-seated valve for instance, a parallel translation at partially significant surface pressure occurs. This way of sealing or releasing the media flow with a movable sealing element (cock plug) that is placed vertically to the direction of flow allows for comparatively low driving power and is therefore ideally suited for high nominal diameters and high pressure differentials. On the other hand, the sealing surface is subject to high friction and therefore abrasive wear. The availability of metal-seated valves is significantly determined through high friction and abrasive wear. Plasma powder deposition welding is the appropriate method in order to armour heavily loaded valve components such as seat rings, double-disc gates and valve discs. For this reason the company is interested in cooperating with a partner that is experienced in armouring highly loaded industrial valves with the following technical parameters: unit weight up to 1000 kg, coating diameter up to 500 mm, maximum layer thickness 5 mm, layer width 5 - 50mm. The goal is to jointly enter new markets with innovative products.

Offer: Novel surface technology for permanent antiadhesive coatings applicable for moulding tools at plastics processing and manufacturing like injection moulding (TODE20150123001)

A German applied research company dealing with surface coating technologies has developed a novel permanent antiadhesive coating technology for moulding tools at plastics processing/manufacturing like injection moulding. The technology is based on sol gel technique and Atmospheric Pressure Plasma Chemical Vapour Deposition (AP-CVD). Seeking industrial and applied research partners dealing with plastics processing and manufacturing for technical cooperation agreements.

Offer: Vacuum coating of flexible substrates (e.g. wovens, non-wovens and plastic films) useful for materials of environmental, energy efficiency and medical applications (Ref: BODE20141215001)

A German SME offers vacuum coating technologies for flexible substrates like wovens, non-wovens and plastic films. The coated substrates can be applied e.g. for heat insulation, sun protection, shielding of electromagnetic radiation (EMC) bactericide properties, flexible conductors, transparent electrodes. The coating is done by thermal evaporation or sputtering technology and is used to deposit metals, alloys, oxides and nitrides. The SME looks for outsourcing or service agreements.

Offer: Innovative gas nozzle device providing covering assistance when welding titanium components (Ref: TOIT20141023002POD)

An engineering department at an Italian University based in Lombardy has developed a proprietary new shielding system allowing the high quality welding of titanium aerospace components with minimum operational cost. The university is looking to license the technology to industrial partners

Recycling / Energy / Agriculture

Offer: Newtechnique to remove hazardous substances in waste packaging by supercritical carbon dioxide in the recycling process (TOES20141124002)

A Spanish technology centre is developing a new technique for eliminating hazardous substances from waste polyethylene (PE) packaging to be used for solvents or phytosanitary products. This technique uses a technology that applies supercritical carbon dioxide (sc-CO2) in the extrusion phase of the plastic recycling process. The centre seeks partners to discuss further research ideas or to establish technical agreements to adapt and implement the technique sharing know-how.

Offer: Urban paving obtained by a sustainable process developed to reach zero-waste in ceramic tile manufacturing (TOES20141006001)

A Spanish research centre has developed a new urban paving by using high content of ceramic waste. To manufacture these tiles, a highly sustainable body preparation process has been designed, capable of recycling all type of ceramic wastes, what makes this tile manufacturing a zero-waste process. The centre seeks partners to discuss further research ideas, to establish technical agreements for adaptations of the process or to be subcontracted to install the process sharing know-how.

Building and Construction

Offer: German specialist for innovative wooden profiles is looking for trade intermediaries in Lithuania, Estonia and Latvia (Ref: BODE20141125001)

The German company is manufacturing high-quality solid profiled wood for claddings, walls, ceilings, floors and terraces. It is interested in entering the Baltic market and is looking for agents and distributors in Lithuania, Estonia and Latvia.

Offer: Company from Poland is offering system for massive wooden structures made of laminated timber (Ref: BOPL20131219003)

The company from North West Poland is offering a HBE (home-base (asset)-exploiting) system for massive wooden structures made of laminated timber. The company is offering high quality services from project and design through production, delivery and montage. The company is offering its services as a subcontractor.

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Medical Application

Offer: H2020-NMP6: Tailor-made nanomatrices for cosmetics and health applications (Ref: RDDE20150119001)

A well-established German research institute is filing a Horizon 2020 proposal for submission under NMP6 - Novel nanomatrices and nanocapsules. The overall aim is to develop tailor-made nanomatrices for cosmetics and health applications. The project will primarily deal with the issue of material release out of silicate nanocapsules which could be applied for UV-protection and drug delivery. Companies are sought that are either active in the area of cosmetics or dealing with drug delivery.

Other

Offer: Innovative natural dyestuffs and dyeing technologies for textile industry (Ref: TODE20140814002)

A German company offers a unique technology and natural dyestuffs for the production of sustainable natural dyed textiles or leather with very good fastness and in a wide range of different colour shades. As one of the first European companies they have created standardized natural dyestuff for non food applications in the 1990's. They offer the products and the technologies to the textile and leather industry, to find cooperation partners for new applications and marketing.

Offer: Polish company is offering bicycle components, electroplating services and tools production (Ref: BOPL20130730003)

A Polish company produces front and rear bicycle steel hubs, aluminum single and multi-row cranks, as well as components to those parts. These elements are used in different types of bicycles for adults and children, for rehabilitation equipment, and four-wheel vehicles for children manufacturing. While electroplating the company uses manufacturing technologies such as: cold forging, upsetting, punching, stamping, machining, thermo-chemical - carbon nitriding, quenching and tempering in furnaces, galvanizing (zinc coating) in the machine, and nickel-chromium coating. Subcontracting services are sought.

Offer: Improved properties of a chemical biocide in industrial formulations (Ref: TOIT20150115001)

An academic research group, based in a Milan University, developed a proprietary production process of co-crystals of iodo-propynyl-N-butylcarbamate (IPBC), with improved biocide activity as preservative, fungicide, algae inhibitor in industrial formulations. The University is looking for an industrial partner interested in taking over the patent (licensing agreement). Joint development proposal will be also considered

Offer: Polish company specialized in producing high quality machines and complete processing lines is looking for business partners from timber sector (Ref: 20130411013 BO)

A Polish company is specialized in producing high quality machines and complete processing lines for e.g. medium sized timber, sorting boards, logs, and biomass production. The company offers wide range of machinery and equipment for the sawmills, paper, plate, furniture, municipal and heating energy industries. Partners from Czech Republic, Germany, Serbia,

Slovakia and Ukraine are sought. The company would like to start long term cooperation in a form of service agreement.

Offer: H2020 NMP2-2015: NanoPack, Integration of novel nanomaterials in flexible food packaging material production lines

A Spanish technological institute is preparing a proposal for NMP2-2015 Integration of novel nanomaterials into existing production lines. The project is aimed to integrate novel nanomaterials in films, ink and coating production lines that belong to manufacturing processes. They look for non-Spanish partners to complete the consortium: ink manufacturer, adhesive manufacturer, packaging company, end-user food company, and consultancy for the project dissemination and IPR protection.

EU News

HORIZON 2020: Novel funding instrument open for 2015 - Fast-Track-To-Innovation (FTI)

On 6th January 2015 a novel funding instrument has been published for a pilot run in 2015. Under "Fast-Track-to-Innovation" (FTI) small consortia with 3 to maximum 5 partners from 3 countries are called to submit proposals. The budget in 2015 amounts 100 Mio€ and about 50 proposal will be financed. For 2016 a similar pilot-call is under preparation.

The FTI pilot supports projects dealing with innovation from the demonstration stage through to market uptake, including stages such as piloting, test-beds, systems validation in real world/working conditions, validation of business models etc. It targets relatively mature new technologies, concepts, processes and business models that need a last development step to reach the market and achieve wider deployment; starting at least at Technology Readiness Level (TRL) 6.

There are no specific topics, the proposals must relate to any field under the specific objective "Leadership in enabling and industrial technologies" (Column 2 of H2020) and/or to any of the specific objectives under the priority "Societal challenges" (Column 3 of H2020). For more information please visit ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/9096-ftipilot-1-2015.html or contact your local EEN.

Metallurgy Roadmap Made in and for Europe - The Perspective of Producers and End-Users

To compete today with America and Asia and to maintain its patent superiority on metal-based products, Europe must increase its efforts to make metallurgical discoveries and innovate its production capabilities. Many stakeholders have pointed out the necessity to reinforce Europe's strategic industrial strength in metals. They have called for a pan-European effort to strengthen the "metallurgical infrastructure" in Europe consisting of academic, industrial and governmental organizations through a dedicated R&D programme for metallurgy in Europe.

Representatives from a large number of EU metal and alloy associations together with representatives of a significant number of European Technology Platforms expressed their

point of view to a large number of experts and rapporteurs in a series of workshops held in 2013. The outcome was a Roadmap (PDF version, 674KB) which focuses on the time scale 2020-2030 and sketch product demand until 2050. Feel free to send us your input. For further information please visit ec.europa. eu/research/industrial_technologies/materials-blog_en.html or contact Achilleas Stalios (Achilleas.Stalios@ec.europa.eu).

INCOMERA Call for Projects 2015

The first INCOMERA Call for Projects 2015 is open. INCOMERA, established as an ERA-NET project supported by the European Commission, is an initiative of governmental R&D&I funding bodies in Germany, Greece, Iceland, Tuscany, Veneto and Piemont (Italy), Flanders and Wallonia (Belgium), Alsace and Nord-Pas-de-Calais (France), Hungary, Israel, Portugal, Romania, Slovakia, Andalusia, Galicia and Valencia (Spain) and Turkey INCOMERA's goal is to establish crossborder partnerships between SMEs and their strategic partners. improve and accelerate technology transfer, and strengthen European efforts to achieve sustainable industrial development in the field of NMP thematic Area. INCOMERA aims at fostering the coordination of a series of trans-regional programmes dedicated to research and innovation within the highly innovative and technology based themes of Nanosciences, Nanotechnologies, Materials and New Production Technologies. Deadline for application: 27 February 2015 at 17.00 (Brussels time). Please check the brochure of the project and Flyer of the Call 2015, you can also download the Pre-Proposal Form. Remember that it is mandatory that every project partner contact with his/her national or regional funding agency, check the flyer to know your national contact point.

Upcoming events

Events of the Sector Group Materials in the Enterprise Europe Network are open to interested enterprises or research organisation and are usually free of charge. You will be supported before the event to disseminate information about your organisation and know-how in advance of the event (by including it in online-catalogues, brochures etc) and you will receive information about other participants (of our brokerage events at international fairs) or visited organisations (at our company missions) in order to preschedule meetings and contacts of your choice. Even after the event we help you to stay in contact with the other organisation and we provide you with further information, e.g. funding opportunities for joint projects.

Biobased Economy - Opportunities for Research Institutes and Companies in the German Capital Region and Europe

A major event in Potsdam bringing together companies, industry and agencies from the German Capital Region and Europe working towards a biobased economy

Date: 30. April 2015 Location: Potsdam

Plants, not petroleum' is the simple way to explain what the biobased economy is all about: a green economy based on plant- and waste-derived food, feed, fuel, and materials – sourced and refined locally.

It is the cornerstone of a bigger renewable economy. With biotechnology we can separate energy components of plants and waste and use them efficiently for food, feed, energy and materials in everyday products. We call this biorefining.

The biobased economy has the potential to replace oil, strengthen security of food and energy supplies, create 'green' jobs, increase incomes and ensure green growth – all at the same time.

To foster radical innovation, from R&D and deployment to market pull, to deliver bio-based products a wider approach is necessary focusing on those sectors of the economy that supply and use only renewable biological resources, and produce biobased materials, goods and fuels, traversing the entire value-chain from field to biorefinery to end consumer.

Thus, the overall aim of the international conference "biobased economy" in Potsdam is to bring together actors along the entire value chain not only to identify the potential for biobased processes but to also address gaps in value chains and to work on sustainable solutions. Therefore an intense knowledge-transfer between companies and research institutes as well as regions in Europe seems vital since it can pave the way for more actors taking over an active role in the biobased economy.

Biobased economy does not only mean a shift from plants to petrolium but a fundamental shift for businesses as well: away from a so called 'linear' model where resources are extracted, made into products and disposed of, to a model where products are remade, repaired, resold, or recycled. Alongside the economic advantages of the biobased economy the event aims at addressing the economic benefits of a circular economic in the frame of the thematic workshops.

More information and registration for Conference and Matchmaking: https://www.b2match.eu/biobased2015

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Hannover Fair - Matchmaking "Technology Cooperation Days"

This year's edition of the brokerage event "Technology Cooperation Days" focusses on SMART FACTORIES & INDUSTRIAL MANUFACTURING: Technologies – Processes – Applications and takes place from 14.04. - 16.04.2015 parallel to the HANNOVER MESSE 2015. HANNOVER MESSE 2015 is the world's leading showcase for new industrial technologies, materials and product ideas. It is the ideal place to obtain latest industrial know-how.

The brokerage event Technology Cooperation Days offer SMEs and research organisations the opportunity to find and meet partners for commercial agreements and for research & technology cooperations and is the place to acquire new technologies, concepts and solutions for application areas as networking and optimisation of processing equipment and processing steps to increase industrial manufacturing efficiency.

Regisitration (until April 10th) and more information: www.technologycooperationdays.com



News from the group I: A regional Profile

Nanotechnologies - new dimension of business focus in Southern - Poland

Aneta Aleksander, PhD, Eng., Enterprise Europe Network,

Upper Silesian Agency for Entrepreneurship and Development Ltd. in Gliwice, Poland



Silesian Region composed of Upper Silesia with capital in Katowice and Lower Silesia with capital in Wroclaw is the most industrialized region in Poland. Deeply rooted traditions of mining and metallurgy, well developed companies of heavy industry have attracted workers and engineers from the whole country. Currently this region is inhabited by almost 4,5 mln people in Upper Silesia and almost 3 mln in Lower Silesia.

Over recent years we have witnessed significant development of new sectors of businesses in the area of widely understood innovations, advanced technologies, ICT, aviation and creative industries. The economy of Silesian region is one of the strongest in Poland (creating almost 12,7 % GDP). Favourable conditions for entrepreneurship are caused here by established Economic Special Zones that constitute attractive areas with legal preferences and opportunities for foreign investors. Among the elements conducive to the development of entrepreneurship one can mention also research institutes and a number universities that by their research and scientific activities accelerate the development of innovative sectors. In this place it is worth to highlight the activity of Silesian University of Technology in Gliwice which is ranked as one of the best technological universities in Poland.

Department of Microelectronics and Nanotechnology of this University is a continuator of research topics of highly understood microelectronics and electronic technology developed in the Institute of Electronics of Silesian University of Technology since the mid-80s of the last century. In the recent years the research area was developed by the nanotechnology of semiconductors. In year 2002 Department of Microelectronics and Nanotechnology gained a status of European Centre of Excellence in Physics and Technology of Semiconductor Interfaces and Sensors (CESIS) granted by European Commission within 5th Framework Programme and in year 2004 it gained a status of National Centre of Excellence in Surface Research Methods in Semiconductors Nanotechnology (NANOMET).

The substantial role of the growth in Silesia region is played by firms from nanotechnology branch. The operation and cooperation of those firms was fostered by the Foundation of Nanoscience and Nanotechnology Support NANONET, which was one of the initiating body of Silesian Nano Cluster that was established in Upper Sielsia in March 2013 and expended to Lower Silesia in October 2014. Among the other founding bodies of Cluster are University of Silesia in Katowice, Katowice City, Institute for Non Ferrous Metals in Gliwice as well and the Polish Chamber of Commerce for High Technology IZTECH. With the extension of the cluster the following institutions have contributed in its funding: Wroclaw Research Centre EIT+, City Wroclaw and Lower Silesian Voivodeship.

Silesian Nano Cluster consists currently of 39 companies and research institutions from across the Southern - Poland. Its mission is to create a platform for cooperation between entrepreneurs, research institutions, public administration and business support organizations to increase the importance of nanotechnology in shaping the future economy and innovative dimension of Silesia. That's why one of the main objectives of the cluster is to support the development of entrepreneurship in Silesia in nanotechnology collaborative scientific and industrial users. This task Silesian Nano Cluster intends to pursue, among others, by initiating cooperation with the authorities and public administration to adopt new organizational, legal and financial conditions for the development of entrepreneurship in the field of nanotechnology. Cluster members also intend to build public awareness of the image of Silesia as a region emphasizing the development of nanosciences and nanoeconomy. Silesian Nano Cluster is a binding element between Upper and Lower Silesia. It allows mainly coherent and constructive communication, exchange of experiences and creates projects that meet the needs of the market.

Selected enterprises operating in the field of nanotechnology, members of Silesian Nano Cluster:

PREVAC – founded in Rogow (Upper Silesia) is focused in setting the standards in precision UHV technology and PREVAC's logo is recognizable throughout the world as a mark of quality in this field.

www.prevac.pl

ELBIT – initially specializes in gilding electronic circuits and contacts, with years the offer was gradually expanded to include silver plating, nickel plating, chemical nickel plating, anodizing, hard anodizing, tin plating, copper plating, and powder painting. www.grupa-elbit.pl

PLASMA SYSTEM – Specializes in the production of the highest quality parts of machinery and devices of enhanced durability. They offer the extension of service life of turbine and fan blades, blades and pump bodies, rolls, shaft necks, drums, rollers, moulds, dies, punches, tools, plungers, piston rods, worms, mixers and other components.

www.plasmasystem.pl

ARSANIT - currently they offer over 70 modern construction chemicals in three groups: bulk products, wet products, polystyrene - more specifically they are: adhesives for ceramic tiles and porcelain tiles, mortar, self-leveling floors, foundations plastering, stucco, thin film and machine, paint, land and styrofoam.

www.arsanit.pl



CERTECH – specializes in application of ceramic coatings (metal oxides - e.g., chromium oxide, aluminium oxide, zirconium oxide, etc.) using the plasma spray method. They have been building their expertise and experience and know-how concerning this technology for over 20 years. They support their customers in selection of a material and process for a specific application. www.certech.pl

ALVO - offers its customers a complete modular solution for modern operating rooms (ALVO MEDICAL): modular walls and ceiling systems, specialist OR doors, operating tables, surgical lihts, scrub sinks, patient transfer systems, medical furniture, modular cabinets, surgical instrument tables. ALVO INTEGRA ensures optimal collaboration among surgeons, anesthesiologists, radiologists and other medical staff.

www.alvo.pl

NANO-CHEM-TECH – is an innovative company focused on production and technical advisory services in the field of nanotechnology and organic chemistry. Their offer is enriched with compounds of precious metals, basic laboratory equipment, as well as services for individual technological processes. Moreover, they are carrying out research and development works as well as syntheses for individual orders.

www.nano-chem-tech.pl

More companies can be found on www.nanoslask.pl.

News from the Sector Group II

TRADEIT

The European Project TRADEIT is a collaborative initiative supporting a network of Traditional Food SMEs and Food Researchers in the areas of innovation, entrepreneurship, training, and technology transfer to help increase competitiveness and sustainability of SME companies producing traditional foods in Europe.

This initiative is presented as a tool to support small and medium enterprises from traditional food sectors, especially dairy, meat, bakery or pastry. Over the three years of the project, companies may have advice, training courses and business meetings free of charge in order to support and offer solutions to their problems and concerns. Experts will analyze and identify the problems and the needs of each company to provide solutions, detect technologies, support in the search of partners and providers, and in the participation in European funded projects.

Among the initiatives foreseen in the framework of TRADEIT, the next two brokerage events will be: "Sustainability for Small Food Producers" alongside the ANUGA FoodTec trade fair in Cologne (26th March) and organized in collaboration with the EEN, and "Innovation packaging solutions for SMEs food producers" https://www.b2match.eu/tradeitfoodpacking on the occasion of HISPACK and Bta. Trafe Fair in Barcelona (23rd April).

If you or your clients, working in the materials field, are interested in detecting opportunities and contacting companies from the traditional food sector and present in the TRADEIT platform, the connection can be established by the Materials Sector Group of the Enterprise Europe Network.

Past event: Nanotech Convoy to Poland

Nanotech companies from France, Ireland and Hessen/Germany visited other nanotech companies and research instutions in the three Polish regions Katowice, Warsaw and Poznan. The aim was to explore the market in Poland and initiate research and business cooperations. Initiated by the InterregIVb project Nanora, EEN Hessen together with Nanora organized this extensive company visit from November 17-20, 2014. The delegation was well received by the regional Polish EEN partners who organized brokerage events, company visits and other matchmaking opportunities.

The support given to participating enterprises was very individual – depending on each ones interests Polish EEN partners in all three regions found suitable partners to talk to. Dr. Till Hagedorn from Oxford Instruments Omicron in Taunusstein/Hessen: "We were fortunate to be able to participate in this company mission as it opened the unique opportunity to discover the Polish market with a high intensity. We had promising contacts to decision makers in the region, had the chance to discover regional trends in this market and are confident to be able to position our precision instruments here."

"This trip showed us ways and opportunities, how we will approach some of our future activities", said Dr. Tobias Engert from the national research center "gsi – Helmholtz center for heavy metal ion research" in Darmstadt/Hessen.

"EEN Hessen was even able to represent my company when at last minute we were not able to travel – and they came back with three interesting leads for us", said Frank Behnam, CEO of Aquanova, a Hessian company immobilising additives for food and beverage applications.

This company mission was set up as a sector group activity with EEN Katowice and EEN Hessen both active in the SG Materials.

Past event: AGROCOPOSITE EUROPE

In December 2014, the event AGROCOPOSITE EUROPE organized by the Chamber of Commerce de l'Aisne and the 3 French clusters, I-Trans (Railway), IAR (biobased products) and Up-TEX (innovative textile) in Saint Quentin (Picardy) presented 12 new materials. Three of them get innovative prizes: CODEM: expanded insulating foam for building insulation application made with agricultural co-products like Cashew Nut Schell Liquid. ENSAIT: Core Yarn made of flax and covered by a PP strip used to make fabric braid or 3D knitting. The composite material is obtained by thermocompression bonding. ECOTECHNILIN: Fibrimat LCM is a range of 100% biosourced reinforcement mats developed for composite applications with LCM (Liquid Composite Moulding) processes, especially infusion, RTM and LRTM. Two products are available:- FibriMat F300 and F450: flax nonwoven mat 300g/ m² and 450g/m².

Enterprise Europe network Picardie organized the B2B meeting between participants on this occasion. Contact to more info: E. Marcelet e.marcelet@picardie.cci.fr

