

#### **EDITORIAL**

European Year of Skills 2023: Fostering skills development in the EU for more sustainable, resilient and fair societies

The 2023 European Year of Skills presents a unique opportunity to champion people and their skills. Developing and making good use of the skills of people, motivates them to be the best they can, gives them the opportunity to a successful career, and of course this has a positive bottom-line impact for organisations, the employers.

The EU economy experienced several shocks in the past 15 years, the financial crisis (2008), the COVID-19 crisis (2020-2021), the invasion of Ukraine led to an energy crisis (2022). Understanding the labour market and skill demand implications of these shocks is important. Labour and skills shortages are currently in the spotlight. Many employers face them and in sectors such as **construction**, they are an increasingly pressing challenge. The EU construction industry represents 11.1% of EU GDP (€1,602 billion) and 6.6% of EU total employment (13 million workers in more than 3 million enterprises). In addition to direct job creation, the construction industry contributes to an important spill-over effect in related indutries such as steel, glass, plastics, textiles, electrical equipment, etc. Investments in construction, historically, have acted as catalysts for growth. For that reason, two initiatives has been announced under the <u>European Green Deal</u>, the <u>Renovation Wave</u> and the <u>New European Bauhaus</u> Initiative, highlighting the importance of the Construction Industry for securing the transition to a greener Europe. Technological development, the greening of the EU economy significantly impacts the construction sector, which is responsible for around 35% of the EU's total waste generation and produced around 40% of carbon emissions. The use of safe and sustainable raw materials, recycling and reuse of materials are all significantly crucial. A more innovative, productive and greener construction industry requires the support of a skilled workforce.

#### **Pact for Skills**

The <u>Pact for Skills</u> was initiated by the European Commission in the framework of the "EU Skills Agenda", aiming to support public and private organisations with **upskilling** and **reskilling**, so they can thrive through the green and digital transitions.

The European Commission has released the first Pact for Skills Annual report 2022. This first edition assesses the progress made towards skills anticipation and development by members of the Pact for Skills, showcases their key achievements in 2022 and highlights remaining challenges and opportunities in the field of skills development as perceived by Pact members. The survey results also present Pact members' suggestions for future activities and resources.

**ARTICLES** 

**NEWS** 

**EVENTS** 

PARTNERING

**OPPORTUNITIES** 

USEFUL LINKS

**SG MEMBERS** 



#### Micro-credentials

On 16 June 2022, the Council of the European Union (EU) adopted a Recommendation on a European approach to micro-credentials for lifelong learning and employability, seeking support the development, implementation and recognition of micro-credentials across institutions, businesses, sectors and borders.

### Skills Challenges in Constructor Sector by CEDEFOP

In April 2023, CEDEFOP published a report on Skills development and trends in Construction. Cedefop's <u>European skills and job survey</u> highlighted substantial training needs for construction workers. Many workers' skills are not well-utilised, which is especially true of construction's <u>significant migrant workforce</u>.

"Although the Cedefop skills forecast estimates an overall job decline in construction, especially for its mediumto low-skilled workers, ageing and retirements will still create large demand to replace those who leave. It will largely concern the sector's key occupations, such as construction workers, construction engineering technicians and electro-engineering workers.

As the sector adapts to the twin transitions and responds to the current disruptions caused by supply-chain problems and rapidly rising prices, cost-reducing technologies will be increasingly used. This will speed up changes in the demand for skills linked to the use of productivity-enhancing construction techniques.

Given the structure of employment in construction, particularly the significant percentage of microenterprises, reskilling workers may be a formidable task. Not meeting the emerging skill needs will be a major constraint on the sector's capability to respond to the current and future skill challenges.

VET will likely struggle to meet the sector's future skill needs. VET stakeholders must continue developing initiatives to overcome the challenges raised by digitalisation, the green transition and the ageing workforce. The challenge of equipping construction workers with the right skills will concern both initial and continuing VET stakeholders. Apprenticeships, a strong VET pathway for the sector, can support efforts of attracting more young and female learners."

### **Key findings:**

- Ageing of the construction workforce will require millions of new workers until 2023.
- Still a "low-tech sector, but digitalisation is on the rise
- Digitalisation and green transition represent a big challenge for learning and skills upgrade

### **EEN – Construction Sector Group**

The Enterprise Europe Network (EEN) is the world's largest support network for businesses. You can reach us in more than 40 countries worldwide, through our 450+ Network Partners. How we can help you? Providing free of charge, tailored support services for companies, start-ups and scale-ups, working with you on build-up your business resilense for future challenges, enabling your benefit of the opportunities of EU Single Market. The EEN Construction Sector Group focuses on the construction ecosystem including activities carried out during the whole lifecycle of buildings and infrastructures. As such, the sector group covers the design, construction, maintenance, refurbishment and demolition of building and infrastructure.

### ARTICLES

### Platform on Innovative Building - Digital and Sustainable

Sustainable buildings, efficient infrastructures, smart cities and attractive regions are fundamental requirements of citizens and business for our future living environments. In order to meet these requirements, there is a need for effective interaction between a wide variety of local / regional actors, appropriate processes and systematic data integration. To cover these needs and connect relevant stakeholders, a platform on innovative building in Bavaria has been established: <a href="Innovative building-digital and sustainable (bayern-innovativ.de">Innovative building - digital and sustainable (bayern-innovativ.de)</a>

### The platform goals are:

- Supporting technology and knowledge transfer
- Initiating initiatives and cooperations
- Functioning as a dialog partner for science, business, administration and politics

### ...with focus topics:

- Digital construction based on BIM and digital twin
- Automation, robotics and 3D printing in construction
- · Resource efficiency, circular economy and building material recycling
- Sustainability of building materials and decarbonization

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#### AcTiVas – for a friendly and safe habitat

By Inês Rondão and Victor Francisco, Innovation & Development at CTCV — Technological Centre for Ceramics and Glass, <a href="https://www.ctcv.pt">www.ctcv.pt</a>

Population ageing is one of the biggest challenges facing contemporary societies. There is a clear need to develop measures and initiatives to ensure an active, safe and healthy life for a growing section of the population - the elderly - who, in addition to having a consecutively higher average age, are gradually and tendentially living alone until later, and/or in a regular situation of social isolation, and/or promoting the growth of new co-housing models (such as co-living or co-housing).

The new construction strategy considers the possibility of adapting the built environment with sensors tailored to specific needs throughout the user's life, providing some functional and intelligent functions, creating a safer and more autonomous environment for older active people.

The AcTiVas project aimed to develop, through a set of R&D activities, various aspects that directly and indirectly impact the built environment, ranging from architecture, materials, home automation and data acquisition and interpretation, to sensorisation and responsive furniture, resulting in a set of vertical solutions with high added value. The project simultaneously



Figure 1 – Prototypes of the sensorisation solutions developed for ceramic tiles for flood and fire detection.

promoted (re)positioning in global value chains - not just habitat, but also health and ICT - as innovative suppliers specialized in developing, designing and providing disruptive solutions.

The various solutions developed in this project target the creation or rehabilitation of living spaces or environments, through the architectural design of the space focused on accommodating users, preferably in their own homes, and at the same time facilitating the transition/adaptation of this same space over time, so that it can be transformed, moulded and carefully adjusted to the specific or evolving needs of users.

In the course of the project, various sensing and functionalization systems were developed for integration into furniture, such as temperature and humidity sensors; functionalization for touch reaction and haptic feedback and antimicrobial and easy-to-clean surfaces.

Considering the spaces where ceramic floors and tiles are typically used, two types of sensing were designed to be applied to these materials: flood and fire risk detection. Using the screen-printing technique, different sensors were produced and integrated into ceramic materials to develop an intelligent structure capable of monitoring the living space, making it safer and more autonomous for elderly users. These sensors include printed gas and flood sensors, incorporated into ceramic surfaces for application on walls and floors. This work was carried out in close collaboration between CeNTI, CTCV, Aleluia Cerâmicas and CONCEXEC, and some of the developments achieved are at the provisional patent application stage.

The sensor integrated into the ceramic is not immediately noticeable and maintains the ceramic identity of the tile. The innovation achieved lies in two main factors: low cost and flexibility in terms of integration. The developments include the incorporation of these detection solutions into a modular construction system and can be visited and tested in the AcTiVas solutions integrator prototype, on display at CONCEXEC's premises.



Figure 2 – Representation of the gas sensor on the ceramic surface, control electronics on the back, and integration into a ceramic tile (source: Project AcTiVas).

#### News from the Sustainable Habitat Cluster in Portugal



The Sustainable Habitat Cluster is composed by a network of more than 150 members that brings together in Portugal mainly companies, but also R&D centers, universities, municipalities, business associations and other public and private entities, that are committed to sustainability as a motto for Innovation and Competitiveness in the Habitat value chain. The members of the Cluster aim to promote a more Sustainable Habitat (cities, buildings and infrastructures) for a better quality of life of people and safeguard of the planet.

Get to know more about the Sustainable Habitat Cluster here: http://www.centrohabitat.net

In this next section we'll present some of the latest initiatives and solutions by the Cluster and its members, under the topics of Sustainability, Innovation and Circular Economy.

# Agenda ILLIANCE: Carbon neutrality through the design, development and industrialization of complementary technologies

The Agenda ILLIANCE, a Mobilizing Agenda financed by component C5 of the PRR - Recovery and Resilience Plan, within the scope of the European Union's Next Generation EU, aims to address the objective of carbon neutrality associated with the buildings sector, through an approach that is based in the development of complementary technologies associated with three fundamental pillars: health, comfort and sustainability.



These innovative technologies are integrated into a series of projects, which materialize the following vision - "Healthy, comfortable and sustainable buildings".

The ILLIANCE Agenda consortium consists of 29 entities, of which 17 are companies, 9 ENESI, 2 Clusters (one of them being the Sustainable Habitat Cluster) and 1 association, led by BOSCH TERMOTECNOLOGIA, S.A.

More information at: www.illiance.pt

#### **EXCELIVING Helpdesk**

As part of the EXCELIVING project (COSME-HORIZON 2020), which includes the participation of the Sustainable Habitat Cluster, a networking platform was created to promote healthy, sustainable and age-friendly environments and it's aimed at companies and clusters in the Habitat value chain.

On this platform you will be able to access a diversified network of contacts, a collection of training resources and also enjoy a thematic discussion forum.



Find out more and register at: <a href="https://helpdesk.ambitcluster.org">https://helpdesk.ambitcluster.org</a>

### Do you already know the Portuguese system for the registration of Environmental Product Declarations?

The DAPHabitat System is a Portuguese system for the registration of Environmental Product Declarations (EPD), in line with ISO 14025 and EN 15804, for products/services in the Habitat sector.



Among the benefits of obtaining a DAP, we highlight the information and the possibility of improvement of the product's environmental performance, recognition in international markets, increased competitiveness in the sector, company's prestige and positive feedback from customers.

Visit: https://daphabitat.pt

### Some solutions and products from the members of the Sustainable Habitat Cluster:

### Taking wood, people and the planet further (Sonae Arauco Portugal S.A.)

Sustainability is one of the watchwords of the new Sonae Arauco collection. Innovus products incorporate a high percentage of recycled wood (more than 70% in some cases) and all raw materials used come from responsible, certified or controlled sources.

+info: https://www.sonaearauco.com/sustainability/our-commitment



# Lightweight expanded clay (Nexclay S.A.)

Nexclay expanded clay is a spherical lightweight aggregate, with an internal structure formed by a ceramic foam with micropores and a rigid and resistant surface, which makes the product an important solution for the construction sector.

Nexclay is a natural, ecological, durable, fireproof and inert product. It does not decompose or rot, and it is light and capable of storing a certain amount of moisture, which it slowly releases.

Its use allows to reduce the weight in the structures and contributes to a significant saving of materials. Due to its internal porosity, it has important thermal and acoustic insulation properties.

+info: https://nexclay.pt/en/expanded-clay

# Solar Light Tube: The ideal solution to reduce energy bill (Chatron, Lda.)

Solar Light Tubes are innovative systems for natural lighting of spaces, which capture, transmit and diffuse sunlight. Natural light is captured and guided through a tube covered, internally, with an extremely reflective material, which minimizes the dispersion of rays and allows the supply of light over considerable distances, without transmitting heat or cold. These systems are intended for industrial and domestic applications.

+info: https://www.chatron.pt/en/produtos/tubo-solar



# APCMC DataCheck (APCMC)

The digitization of operations and processes along the construction chain is crucial for increasing productivity and meeting decarbonisation targets. Within the framework of these objectives, building materials occupy a central position in digitalisation, both in terms of dematerialisation and improvement of the efficiency of logistical, administrative and commercial processes, and in the use of metadata in projects and in the management of works.



APCMC, following the best European practices in this area and with the support of EU funds and its partners, offers manufacturers and distributors a set of tools and solutions that guarantee the standardization and interoperability of information in digital format.

+info: https://www.apcmc.pt/datacheck

# Efficient Aluminum Windows (Caixiave S.A.)

FV 70 series stands out for its excellent thermal bridge rupture, which allows it to obtain the highest thermal, watertight and airtight performance. With a wide range of colors and aesthetic options, the FV 70 series can respond to the most demanding architectural projects.

CAIXIAVE has the most advanced production units located in Portugal, currently positioning itself in the leadership of the Iberian market of efficient PVC and Aluminum windows. CAIXIAVE also has an international presence, with 4 subsidiary companies (production and/or sales): Portugal, Spain, France and Angola.



+info: https://www.caixiave.pt/produto/serie-fv70

# Discover Weber water-based solutions for waterproofing roofs (Saint-Gobain Portugal S.A.)

The range of roof waterproofing solutions, weberdry pur, is growing and this time it brings new water-based products. They present several benefits such as easy application, high estimated durability and are even more sustainable and safe for the applicator.



+info: https://go.saint-gobain.pt/gama-coberturas-base-aquosa-weber

# CROMÁTICA 3.0 COLLECTION: Color with purpose. (Revigrés, Lda.)

With 30 colours, 10 formats and 3 finishes, the 3.0 edition of the Chromatic Collection is a version adapted to the current context that aspires - and inspires - the creation of unique and sustainable environments, through technically advanced and differentiating ceramic design solutions, focusing on sustainability, durability and energy efficiency.

+info: https://www.revigres.pt/en/p/cromatica-30



# ADENE launches eCIRCULAR (ADENE)

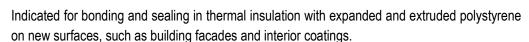
On July 5th, at SIMARSUL's Wastewater Treatment Plant in Barreiro/Moita, ADENE presented the "eCIRCULAR" initiative, a performance classification system for the circular economy, which aims to promote the transition of organizations to an economic model aligned with the principles of circularity.



+info: ecircular.adene.pt

# IPETHERM FIBERS: Monocomponent gluing and sealing mortar for thermal insulation (Diera, Lda.)

Monocomponent adhesive and finishing mortars with mixed binders with the addition of synthetic fibers and cellulose (GP CS IV W2, in accordance with NP EN 998-1:2017).



+info: www.diera.pt/etics-thermal-insulation-solutions/mortars/ipetherm-fibers



# Turkey chooses Acousticork® by Amorim solutions for the first underground cruise terminal of the world (Amorim Cork Composites, S.A.)

Acousticork brand underscreeds were the solutions chosen for the construction of Galataport, the new cruise terminal in Istanbul, as they reduce the propagation of impact noise and heat losses, positively influencing thermal and acoustic performance.



+info: <a href="https://amorimcorkcomposites.com/pt/as-nossas-marcas/acousticork/projetos/galataport-terminal-de-cruzeiros-istambul">https://amorimcorkcomposites.com/pt/as-nossas-marcas/acousticork/projetos/galataport-terminal-de-cruzeiros-istambul</a>

#### 1) News from Iclimabuilt project - An Open Innovation Test Bed for building envelope materials, by CETMA

iclimabuilt is led by the National Technical University of Athens (NTUA) and the 28 Consortium partners cover 13 EU member countries. The Project will run for 4 years, with the goal of creating an open access ecosystem for developing, upscaling and testing innovations in building envelope materials and technical systems via 9 Pilot Lines (PLs) to reach Nearly Zero Energy Buildings (nZEB) balance. At the same time, iclimabuilt will support and help small high-tech firms to scale up and cope with the continuous rising of technological complexity, assisting in the transformation of research results into innovations.

### iclimabuilt Project Update - Pilot Line 6 results

CETMA as a co-leader of one of the Project's Pilot Lines (PL6), has achieved groundbreaking results.

CETMA's researchers from the Diagnostic and Civil Engineering Area, in partnership with FenX AG (Switzerland), have successfully developed an innovative building block, one of the project's Test Cases (TC5). This eco-friendly block is designed for infill walls, offering both superior insulation and sustainability, as it is made using recycled materials.

The innovative block combines lightweight concrete, expertly optimized with fully recycled mineral/plastic aggregates by CETMA with an insulating foam made from mineral wastes, skillfully developed by FenX AG. This powerful synergy of expertise results in an environmentally conscious solution for the construction sector.

Thanks to a fruitful collaboration with EURECAT these sustainable blocks have already been installed on an external façade of one of the project's Living Laboratories (LL) in Amposta, Spain. This real-world testing is a significant step towards implementing greener and climate-adaptive building envelopes.



#### The iclimabuilt open call

The iclimabuilt Project launched the iclimabuilt open call on the 1st of September 2023.

This initiative extends a warm invitation to Small and Medium Enterprises (SMEs) and external stakeholders, as we join forces to shape the future of sustainable building materials. As a crucial part of iclimabuilt Project, the Open Call aims to empower high-tech firms by providing a pathway to scale up, navigate technological complexities, and translate research into tangible, innovative solutions. This process is going to be supported by iclimabuilt Project's Open Call providing a funding amount of €1.15M to 10 winning proposals.

### Why Participate:

Through this initiative, SMEs and small consortia gain the chance to develop and test our cutting-edge technologies across a range of designated test cases.

### Important Dates:

Submissions Start: September 1st, 2023

Submissions End: December 30th, 2023

#### **Get Involved:**

To explore further details about the Open Call, access additional information, and secure the Application Form, we invite you to visit our **dedicated** Open Call **webpage**: <a href="https://sepiclimabuilt.com/">https://sepiclimabuilt.com/</a>

### **Upcoming iclimabuilt webinars**

4th webinar "Innovation insulating materials"

This webinar will present novel, sustainable insulating materials, like cellular lightweight concrete (CLC) and waste-based lightweight insulation blocks by presented by iClimabuilt partners, <u>RISE Research Institutes of Sweden</u>, <u>CETMA</u> and <u>FenX</u>.

The content of the webinar covers the topics as follows:

- Cellular Lightweight Concrete as insulating material: CLC insulating properties, testing, application, and challenges.
- From recycled materials to insulating materials and sandwich solutions for sustainable buildings: introduction
  on sustainable and insulating materials, Light Weight Concrete (LWC) and foams, and sandwich solutions for
  buildings.

Discover the latest advancements in sustainable building materials presented by our partners, <u>RISE Research Institutes of Sweden</u>, CETMA and FenX. The webinar is designed to empower SMEs and industry professionals with innovative insights.

Register now: <a href="https://bitly.ws/UvLs">https://bitly.ws/UvLs</a>

### 2) Exploit4Innomat



Exploit4InnoMat is a 4-year project that started on January 1st, 2023, and is funded by the European Commission (EC) under Horizon Europe Program. Exploit4InnoMat Project will provide a sustainable solution across Europe for the design, upscaling and validation of new material concepts, aiming at developing an open innovation test bed (OITB) network for building envelopes that will facilitate the achievement of the EC target for nearly Zero Energy Buildings (nZEB). 27 partners from 11 different European countries, Turkey, Switzerland and United Kingdom are collaborating to develop sustainable materials and products (e.g. nano-enabled cement, non-cement premixes and ceramics, advanced coatings and glazing solutions loaded with aerogel, fibers, PCMs and other nanomaterials) with multifunctional properties (e.g. better insulation properties, reducing thermal bridges, harvesting or storage of energy, lower embodied energy, healthier and more comfortable indoor environment).

In Exploit4Innomat CETMA is responsible for Pilot Line 8 related to Cement-free (alkali activated) materials and components (precasted solutions) with recycled or natural aggregates. During the project will collaborate with the other partners to develop Cement-free construction materials and components with CDW (construction and Demolition Waste) aggregates to perform LCA/LCC analysis on novel materials that will be studied. CETMA will also perform some characterization test on the materials and components that will be developed bringing also their skills and knowledge in the OITB supporting start-up and SME that want to develop or test innovative solution in the field of sustainable construction material.

You can find more details on the project website: https://exploit4innomat.eu/

### Supporting the digitalisation of construction SMEs

The European Innovation Council and SMEs Executive Agency (EISMEA) and DG for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) had set-up website "<u>Digitalisation of Construction SMEs</u>,. This website is a one-stop-platform for construction SMEs providing them with materials supporting their digitalisation. The website is available in national languages.

The aim is to support the digitalisation of construction sector SMEs by improving their understanding of digitalisation covering technologies such as BIM, 3D printing and scanning, robotics, drones, sensors and IoT.

SMEs have on-line access to several tools:

- <u>Digital maturity scan</u> allows companies to further their understanding of where they stand in terms of digitalisation and benchmark the result against standards in the same country and in the same sub-sector.
- According to the result the SME is directed to the relevant section of the <u>interactive handbook</u>, that guide SME to increase their current level of digitalisation, suggesting the next steps to be taken and providing actionable recommendations.
- <u>Best practices</u> provide case studies of companies from constructions sector that implemented digital solutions in their business.
- <u>Training courses</u> are based upon the outcome of the scan and the handbook and help construction SMEs and their ecosystem to upskill and harmonise digitalisation support measures in the EU.

Digitalisation entails several benefits and it can help address some of the challenges faced by the construction sector.

More information and source here



### **B2B Cooperation Platform Wood Construction**

at the 27th International Wood Construction Conference 2023 in Innsbruck

- 30 November 2023 1.30 to 5.00 pm
- Congress Innsbruck, Grenoble Hall, 3rd Floor

The Tyrol Economic Chamber (Foreign Trade Department) in cooperation with the Enterprise Europe Network and proHolz Tirol invites to the international B2B Cooperation Platform Wood Construction. The event is again organised within the well-known International Wood Construction Conference (IHF) in Innsbruck. This international forum offers woodworkers, planners, engineers, architects, project developers, construction and regulatory authorities, timber constructors and craftsmen, practitioners and instructors the opportunity to get comprehensive information and exchange idea concerning timber construction. Participants of the 27th International Wood Construction Conference 2023 have the possibility to have B2B meetings with their selected meeting partners, organised and coordinated in advance.

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#### **Brokerage event at the International Wood Construction Conference**

30 November 2023, Innsbruck, Austria

This year the Chamber of Commerce Tyrol, in cooperation with the Chamber of Crafts and Trade for Munich and Upper Bavaria and the Enterprise Europe Network, is organizing a Brokerage Event as part of the 27th International Wood Construction Conference.

This platform allows construction companies, planners, engineers, and architects to engage in in-depth discussions on industry topics and provide mutual support. It is organized to introduce new processes and products to interested parties and support the exchange of knowledge. The focus is on experiences, work, and goals related to wood structures and wood constructions. This networking event can be particularly interesting for companies in Central Europe to further their education or to meet representatives from authorities.

The topics cover:

- Building Components and Materials
- Engineering and Planning, IT Services
- · Research and Development
- Construction Chemistry

The Brokerage Event of the **International Wood Construction Conference** takes place at the Congress Innsbruck, with meetings and discussions being conducted either on-site or online. If you are interested, you can register and introduce your company to engage in informative conversations and potential business contacts.

Until the registration platform is available, please contact dietmar.schneider@hwk-muenchen.de if you have any questions.



<u>BOPT20230403032</u> - Portuguese company that develops and manufactures progressive tools for metal cutting and stamping looks for commercial agreement

<u>BRPT20230518009</u> - Portuguese company active in energy sector, both oil & renewables seeks partners through a commercial agreement

<u>BOPT20230621028</u> - Portuguese company specialized in metal molds for injection of plastics is looking for partners interested in a commercial/distribution agreement

<u>BOPT20230623011</u> - Metalworking Portuguese company is looking for partners to establish a subcontracting agreement

BODE20220325018 - Dispensing and degassing solution for containers for the packaging of liquids - looking for distribution and manufacturing agreements: A German SME specialized in the development, production and sales of dispensing taps, degassing inserts and caps for containers for the storing and packaging of liquids is searching for distribution and manufacturing agreements. The company offers solutions for different container sizes from small bottles to IBC (intermediate bulk containers) suitable for a broad range of liquids as food and drinks as well as chemicals and fertilizers.

<u>BODE20220325016</u> - Liquid waterproofing systems for the construction sector - looking for distribution partners: A German SME active in the development, production and sales of liquid waterproofing systems for the construction sector is looking for distribution partners and manufacturing agreements. The German company offers a broad product range of waterproofing systems for the waterproofing of flat roofs, balconies and parking decks, as well as all connection details and special solutions.

<u>BRDE20220324006</u> - A German company group is searching for subcontractors, who offer painting, plastering, stuccoing or drywall craft: A German company group active in the construction sector is searching for subcontractors, who offer painting, plastering, stuccoing or drywall craft for construction projects in Northern and West Germany as well as Saxony-Anhalt. The target is to establish long term cooperation with subcontractors from Eastern Europe, interested to work of the base of contracts for performed services.

<u>BODE20220316015</u> - Sorting, transport, filling and packaging of various solid and bulk materials by vibration equipment – looking for manufacturing and distribution agreements: A German supplier of a broad range of vibration equipment for the sorting of solid and bulk materials in various industries such as automotive, agriculture, casting and steel, chemical, recycling and food as well as raw materials, is looking for distribution partners and partners for manufacturing agreements who are interested to integrate the offered machinery in complete processing lines.

BODE20220315012 - A German SME active in the development of material for natural binded path coverings is looking for joint venture partners in Scandinavia, Iceland, Canada and Italy: A German SME active in the development, production and sales of natural binded path coverings which are suitable for country specific climate conditions and the locations where they are used is looking for joint venture partners in Scandinavia, Iceland, Canada and Italy. The task will be the development of country specific material mixtures for natural binded layer path coverings with a high content of local mineral material to minimise the transport effort.

<u>BODE20220311003</u> - A German SME active in concrete repair is looking for co-operation with international partners through subcontracting agreements: The German SME offers the repair of concrete building parts and infrastructure facilities damaged by cracks or corrosion with modern repair processes such as the injection of cement-based suspensions and resins. The offered repair processes are in accordance with German Concrete and Construction Engineering Association certificates. The SME seeks to establish subcontracting and manufacturing agreements with partners from the construction industry.



European Foundation for Cluster Excellence: www.clusterexcellence.org

Quality audit - GOLD LABEL

Platform for European Clusters: <a href="www.clustercollaboration.eu">www.clustercollaboration.eu</a> LiderA - Sustainability assessment system: <a href="www.lidera.info">www.lidera.info</a>

General Information about Sustainability: www.theenvironmentalhandbook.com

Futurebuild: www.futurebuild.co.uk/

ECTP - European Construction Technology Platform: www.ectp.org

Sustainable Build: <a href="https://www.sustainablebuild.co.uk">www.sustainablebuild.co.uk</a></a>
BuildingGreen: <a href="https://www2.buildinggreen.com">www2.buildinggreen.com</a>

International Iniciative for Sustainable Built Environment: www.iisbe.org

CIB World: www.cibworld.nl

BRE - Building Research Establishment: www.bre.co.uk

DUT Partnership: <a href="https://dutpartnership.eu/">https://dutpartnership.eu/</a> iClimabuilt project: <a href="www.iclimabuilt.eu">www.iclimabuilt.eu</a> Exploit4innomat: <a href="https://exploit4innomat.eu/">https://exploit4innomat.eu/</a>

Cluster Habitat Sustentável - Centro Habitat: <a href="http://www.centrohabitat.net/pt">http://www.centrohabitat.net/pt</a> Centro Tecnológico da Cerâmica e do Vidro (CTCV): <a href="https://www.ctcv.pt/">https://www.ctcv.pt/</a>



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