Spain

LOPEC 2024

March 6th – 7th 2024, Munich (Germany)

Hall B0 – Stand 405

Spain

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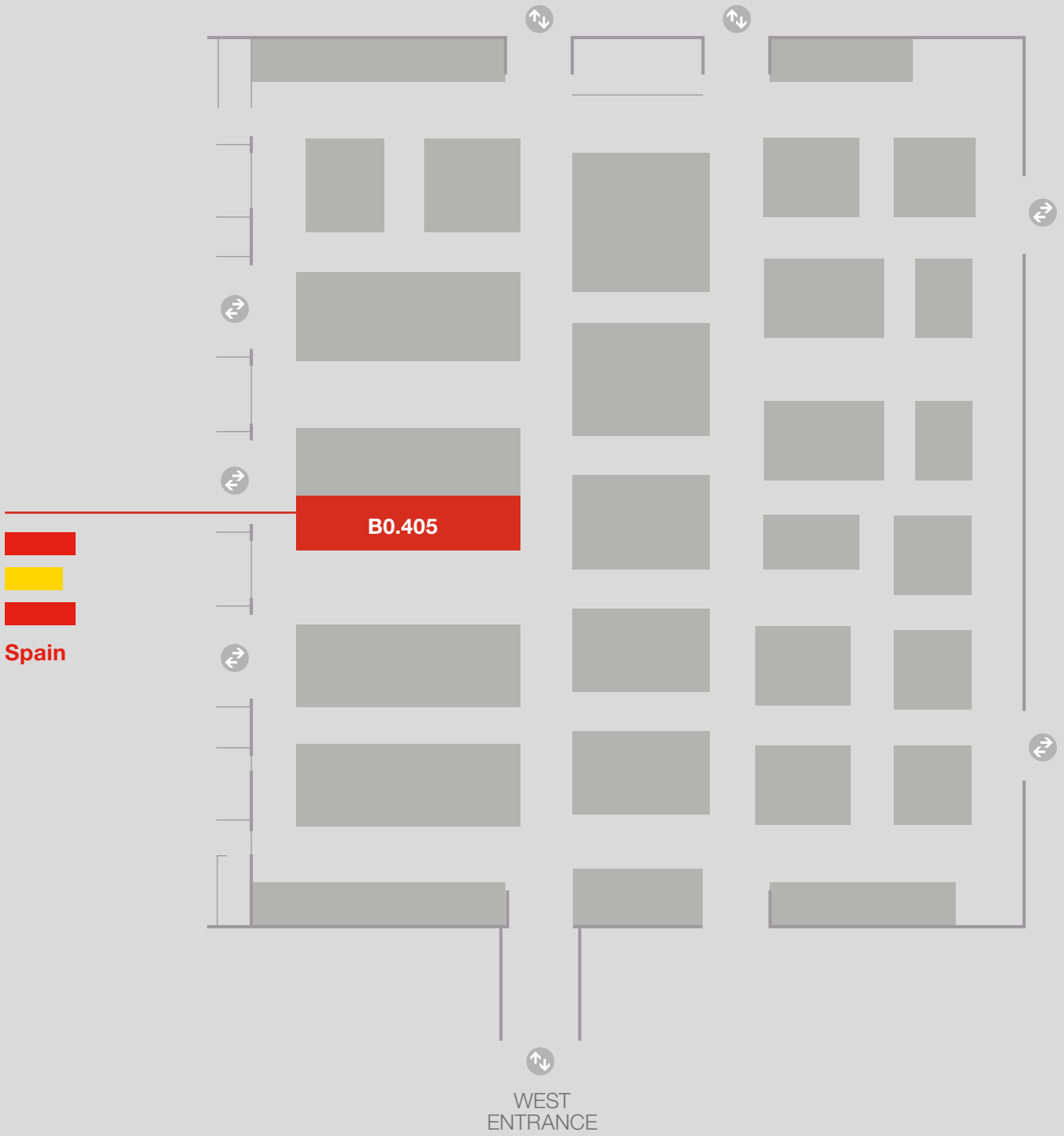
Exhibiting companies

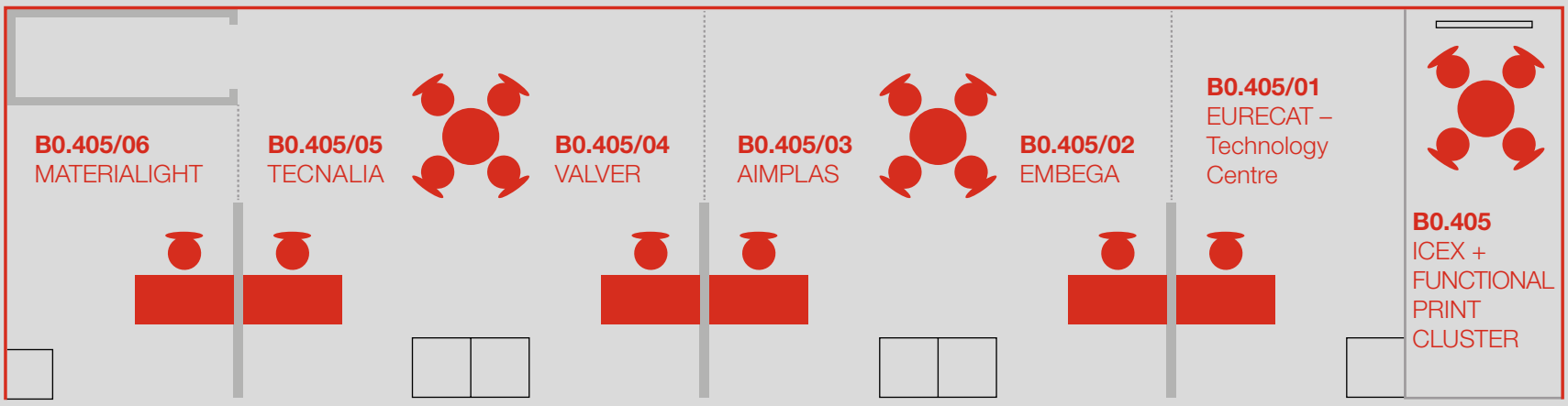
AIMPLAS	**www.aimplas.net**
EMBEGA	**www.embega.es**
EURECAT – Technology Centre	**www.eurecat.org**
FUNCTIONAL PRINT CLUSTER	**www.functionalprint.com**
MATERIALIGHT	**www.materialight.com**
TECNALIA	**www.tecnalia.com**
VALVER	**www.valvergroup.com**

LOPEC 2024

HALL B0 – STAND **405**



SPAIN PAVILION B0.405



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AIMPLAS
PLASTICS TECHNOLOGY CENTRE

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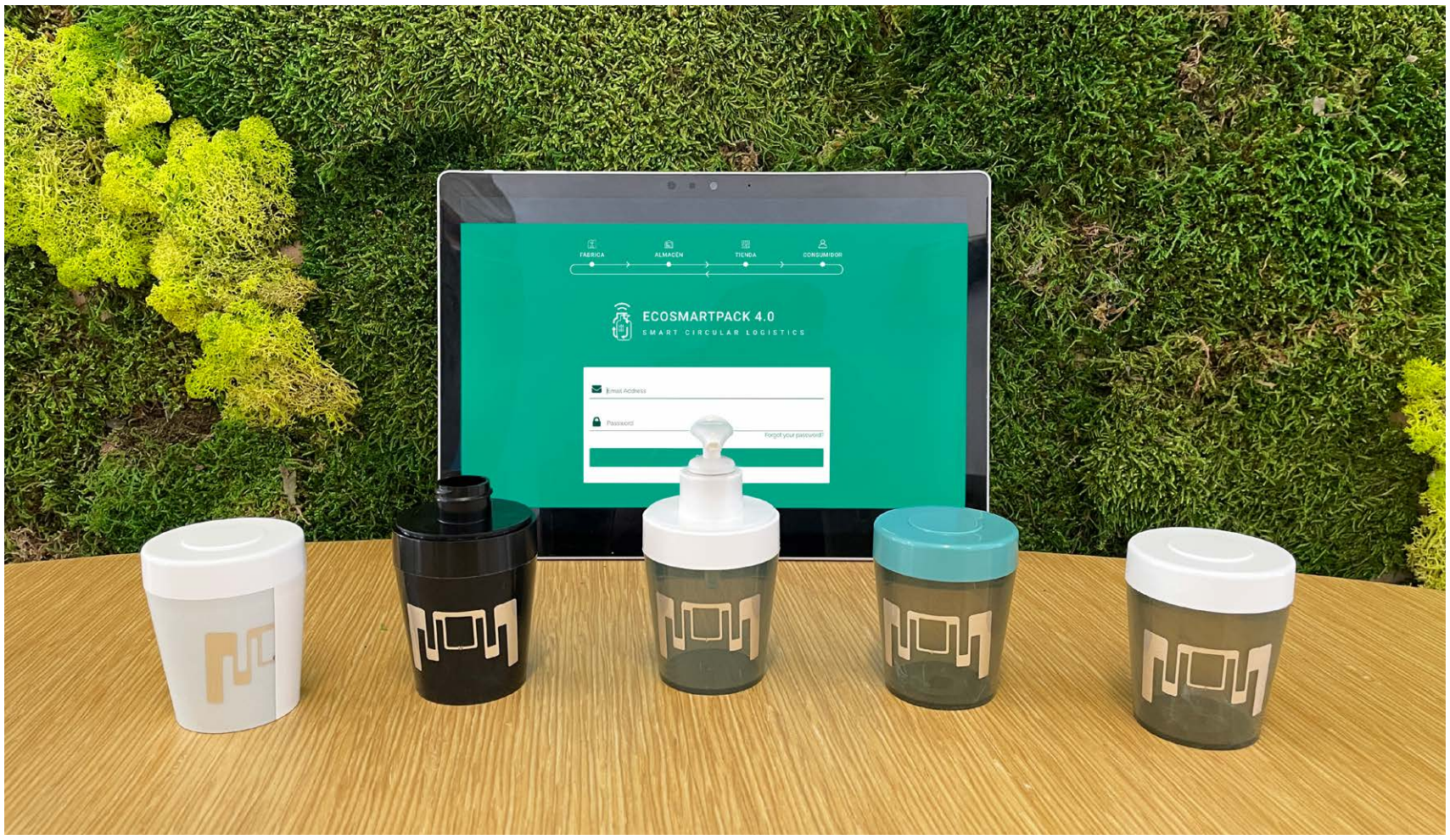

COMPANY DESCRIPTION

AIMPLAS is a technology centre with over 30 years of experience in the plastics industry. We provide solutions to companies throughout the value chain, from raw material manufacturers to plastic processors and end users. Our purpose is twofold: we provide added value to companies so they can create wealth and provide employment and we work to solve the challenges facing the use of plastic in today's society in order to improve people's quality of life and ensure environmental sustainability.

We have 12,000 m^2 of facilities with cutting-edge technology, 35 pilot plants are available to test all plastic processing applications, including thermoplastic, thermoset and composite processing and our laboratories have the highest number of accreditations for plastics according to the UNE-EN ISO/IEC 17025 standard.

SECTORS:

- Recicling
- Electronics
- Construction
- Aeronautics
- Automotive
- Raw Materials
- Packaging
- Electrics
- Health
- Sustainable Habitat
- Aerospace
- Transportation
- Agriculture

TECHNOLOGIES AND PRODUCTS

One of the developments that AIMPLAS will show in its stand will be the conductive plastic materials and its advanced properties for its application in sustainable mobility and intelligent transport, lightweight solutions for both safety and human-machine interaction. This development has taken place in the framework of the **EPLAST** project. On the other hand, another of the projects that they will demonstrate will be **ECOSMARTPACK 4.0**, within which the design and implementation of a digital platform for the traceability of the packaging during the different life cycles are contemplated and on the other hand the obtaining of a functional prototype of intelligent packaging with traceability identifier in an environment simulated and its validation. Another innovation AIMPLAS will be presenting at LOPEC is the **SENSOPIE** project, which has developed a smart insole based on flexible electronics that can be integrated into elastomeric materials for early diagnosis and prevention of skin ulceration. On the other hand, AIMPLAS will also showcase the **FILI** project, which focuses on the development of new smart and flexible materials, with electrical or magnetic conductivity properties, for integration in both soft robotics and electronic sensors.

Stand **B0.405/03**

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embega

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COMPANY DESCRIPTION

On December 14, **1972**, Commander Eugene Cernan took a walk on the moon. He was the last human being to be there. That same year **Embega was born**, when a group of workers from AGNI, a manufacturer of stoves, cookers and household appliances, founded the cooperative as a part of **Mondragon Group.**

The cooperative started with 43 members who were dedicated to machining, silk-screening, and lithography of metal plates for household appliances, automatisms, and other decorative elements. In 1979, the anodizing and **galvanizing plant for aluminum profiles** was started up, with 120 workers.

In the 1980s, part of the business was diversified, and two new activities emerged. The first focused on-screen printing **printed sealing gaskets,** and the second on the production of membrane keyboards for sectors such as vending and machine tools.

In early 2013, a new product line was launched, a natural evolution of membrane keypads: **flexible, backlit, and capacitive buttons and keypads, within the HMI division.**

SECTORS:

Based on printing, thin-film technologies, flexible electronics, with very high reliability meet the most exigent requirements of sectors such as **automotive, home automation, white goods, and medical…** but also in high variety of other sectors **as solar-energy, vending, CNC machinery…etc.**

TECHNOLOGIES AND PRODUCTS

Embega, a company of the Mondragon Group, has an activity of **printed sensors.** Embega manufactures and develops printed sensors, providing a seamless transition to fabrication processes from laboratory applications.

CAPACITIVE TOUCH SENSORS FOR ANY DEVICE:
An intuitive and pleasant user experience with a nearly limitless number of possibilities for backlighting, design, and branding in main markets such as Medical Equipment Manufacturers, Household Appliances, and Automotive Industry.

MEMBRANE SWITCHES:
With their fully sealed design, membrane switches offer extended reliability and durability, making them the ideal control solution for any equipment. A fully sealed and water-resistant Surface up to IP67.

PRINTED ELECTRONICS FOR MEDICAL SKIN PATCHES AND DIAGNOSTIC ELECTRODES:
Flexible electronic circuits on thin flexible substrates for skin patches that are comfortable to wear, and long lasting.

We also offer **screen printed electrodes and biosensors** assisting the healthcare industry in the development and production of technologically advanced diagnostic and therapeutic electrodes.

PRINTED SEALING GASKETS:
We are present in markets as different as pneumatics, oleo hydraulics, automotive, electronics, household appliances...

eurecat

www.eurecat.org

Cristina Casellas
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COMPANY DESCRIPTION

EURECAT is the main technology centre in Catalonia. Provides the industrial and business sector with differential technology and advanced knowledge to meet current trends innovation needs and boost industrial competitiveness. EURECAT supports companies in their internationalization processes through technology and builds strategic collaborations with international agents that promote innovation: technology centers, networks, platforms, innovation agencies and companies. With a turnover of 63 million euros a year, it includes more than 750 professionals and participates in more than 200 R&D+i projects of high strategic value on a national and international scale. The technology centre has 200 patents and 9 spin-offs and is recognized by the European Commission as a KETs technology center (Key Enabling Technologies or Essential Facilitators Technologies) due to its strong collaboration with SMEs in innovation and market research activities.

MAIN SECTORS:

- Automotive
- Avionics
- Home appliance
- Sports
- Health
- Packaging
- Energy

UNIT DESCRIPTION & MAIN RESEARCH LINES:

Functional Printing & Embedded Devices Unit is an interdisciplinary group focused on thin-film printed, flexible and hybrid devices embedded into smart surfaces and objects. The group has more than 15 years of experience in the field of printed electronics. The main research lines are:

PRINTED ENERGY DEVICES:
Design and development of printed devices with ad-hoc functionalities to tackle major issues in energy harvesting, fuel cells and MEAs.

PRINTED HEALTH & ENVIRONMENTAL SENSORS:
Design and development of printed devices with ad-hoc functionalities to tackle major issues in health and environmental monitoring.

IN MOLD ELECTRONICS:
Design and manufacture of functional films for embedding them into plastics and composites.

SMART ENGINEERING:
Design and develop embedded systems and IoT devices for 4.0 industry and smart environments.

EURECAT will present “Project Púlsar” (A smart plastic surface) at oe-a competition 2024.

GIANCE project

ALTERNATIVE project

MADRAS project

FUNCTIONAL PRINT
CLUSTER

www.functionalprint.com

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COMPANY DESCRIPTION

FUNCTIONAL PRINT CLUSTER is an innovative and transversal ecosystem that brings together almost ninety companies, SMEs, technological centers and universities, involved in activities related to the support and development of advanced printing in Spain and southern Europe.

Its general objective is to be a transmission mechanism for new advanced printing technologies, from a perspective of new business opportunities. Bring to the industry and the market, those new applications and new developments that can be carried out using these technologies. Functionalization as a diversification and innovation strategy.

This year 2024, the FUNCTIONAL PRINT CLUSTER participates in 7 R&D&I projects that involve a total of 36 companies, At the same time, they begin the execution of the INFINITE project, the Erasmus COVE project, which aims to establish a European network of Vocational Training Centers at regional and national level in collaboration with Clusters and Vocational Training centers from Germany, Latvia, Spain and Finland.

SECTORS:

- Mobility
- IoT & Wearables
- Health & Wellness
- Packaging & Logistics
- Smart Building

TECHNOLOGIES AND PRODUCTS

TECHNOLOGIES:
Printed electronics, In mold Electronics, Additive printing, Biofunctional printing.

PROJECTS PRESENTED:
AEI projects that Functional Print Cluster is currently working on: Smart Stock Duomo 2.0, EMI, IMASS, PackCompute, Plaisens, Ciclop 2.0 y Criterion

EUROPEAN PROJECTS:
Infinite Project: European project framed in the “ERASMUS+ Programme” and “Call Partnership for Excellence - Centers of Vocational Excellence.

The objective of the project is to establish a European network of VET Centers at regional and national level (Germany, Latvia, Spain and Finland), to create a comprehensive ecosystem of skills, implementation of new qualifications in national VET systems and encourage collaboration and mobility between training centres, universities and European industries.

MAIN PROJECTS:
We participate in National and international projects; we also organize workshops focalized in industrial markets in partnership with our members. In our 10 years of work we have participated in more than 25 research and development projects for these technologies.

materialight

www.materialight.com

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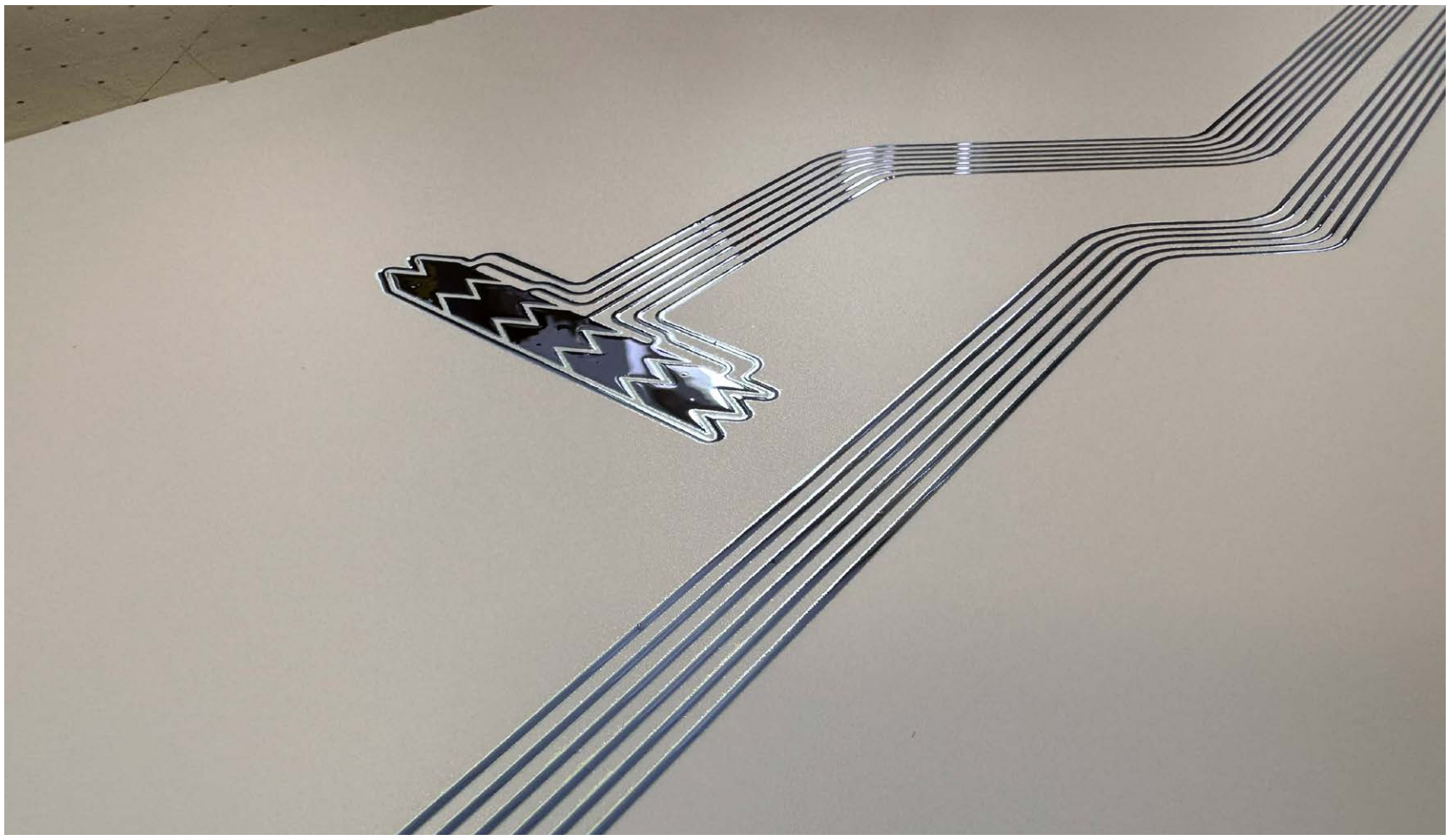

COMPANY DESCRIPTION

Located in Navarra (Spain), MATERIALIGHT is a company dedicated to the design and manufacturing of custom industrial digital printing systems. It develops high-productivity inkjet systems for sectors such as packaging, digital publishing and large area manufacturing. We facilitate the transition to digital workflows and advanced manufacturing by incorporating digital printing technologies, from concept to production. We accompany our clients throughout the entire process, advising on the printing technology and the most appropriate inks for the application.

SECTORS:

- Printing, converting and packaging industries.
- Large area electronics: automotive, aerospace, rail and building and infrastructure

TECHNOLOGIES AND PRODUCTS

Single-pass digital inkjet printing for labels and packaging. Specialized in printing on difficult substrates (plastics) and food packaging. We use mainly water-based inks with low environmental impact.

Large format printing for the electronics industry. Systems for the manufacturing of printed circuits on rigid and flexible support, in large dimensions (1 to 10 m^2). Technology compatible with Surface Mount Devices (SMT).

MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

www.tecnalia.com

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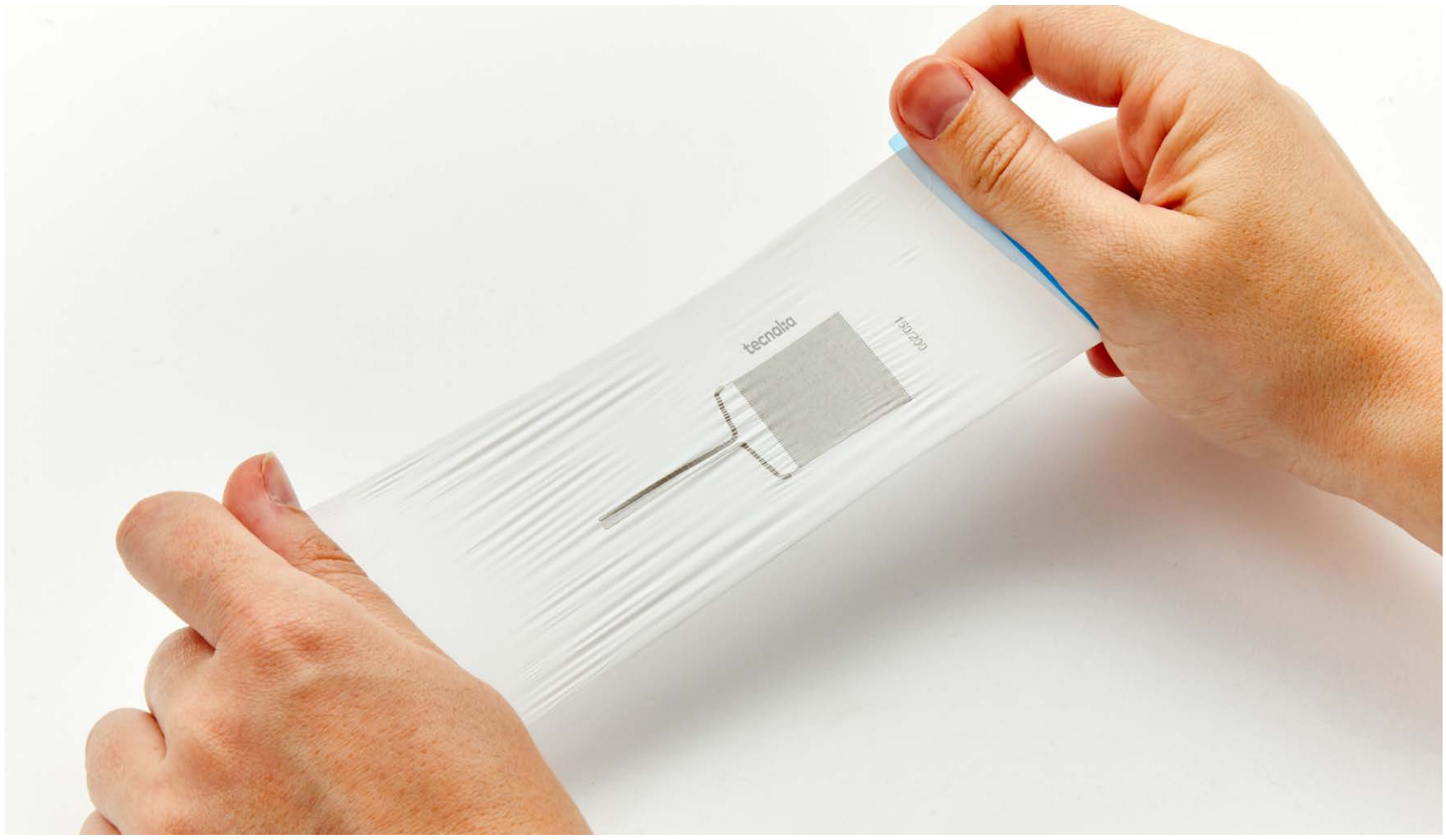

COMPANY DESCRIPTION

TECNALIA is the largest centre of applied research and technological development in Spain, a benchmark in Europe and a member of the Basque Research and Technology Alliance. It collaborates with companies and institutions to improve their competitiveness, people's quality of life and achieve sustainable growth, thanks to a team of more than 1,500 people committed to building a better world through technological research and innovation. That is why TECNALIA's research has a real impact on society and generates benefits in the form of quality of life and progress. Its main scopes of action are: smart manufacturing, digital transformation, energy transition, sustainable mobility, health and food, urban ecosystem and circular economy.

At TECNALIA´s functional printing platform, our approach is to generate knowledge which can lead to sustainable high added value materials and products, ensuring competitive advantages, economic impact and job creation coming from the resulting industrial applications. To this end, we collaborate with key players in the field and our partners in a wide variety of sectors.

SECTORS:

- Automotive
- Railway
- Aeronautics
- Space
- Electronics

TECHNOLOGIES AND PRODUCTS

- Direct printing **on final surfaces** of any geometry and material
  - Direct printing of **functional inks on 3D surfaces**
  - Component **hybridization**
  - Components manufactured by means of **well-known processes.**
  - **Electrospun veils** as a final product and composite functionalization enablers
- **Additively** manufactured electronics
  - Combining additive manufacturing technologies with on-the-go printed electronics.
- Integration of **wireless** power transfer and communications
  - Overcoming wiring and connection challenges to enable new integration possibilities.
- Embedding printed devices in **composites**
  - Printing on **dry fabric or veil**
  - Integration in the laminate and composite manufacturing **based on well-known processes: RTM, prepreg, infusion…**

Our multifunctional team of professionals from various fields (Chemistry, Physics, Electronics, Engineering) works together with the customer along the whole process. From the initial idea to the functional prototype, in TECNALIA we can cover all the steps:

Requirements definition, electronic design, material selection and adaptation, printing process development, printing and hybridization, functional characterization, integration, prototype manufacturing, testing and validation.

www.valvergroup.com

Cristina Miguez Duran
Customer Service

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COMPANY DESCRIPTION

VALVER develops industrial screen printing and decoration solutions to clients in the automotive, two-wheel, sports and industrial sectors.

Kromex, Ecodomes, Stickers & Decoration, Aluminum-Steel, Resin, Injection, IML / IMD, Electroluminescence / LED ...

Our screen printing and industrial decoration solutions make us the only company in the sector in Spain with this variety of technologies and a pioneer in Europe and globally.

SECTORS:

- Automotive
- Two-wheel
- Sports
- Industrial

TECHNOLOGIES AND PRODUCTS

ALUMINIUM-STEEL. Protective-coated emblems certified for the strict requirements of the automotive industry.

RESIN. Transforms a simple decorative sticker into a very high-quality three-dimensional emblem.

ECODOMES. Patented technology to develop 3D parts thanks to the combination of different materials adaptable to curved surfaces with chrome feel.

KROMEX. Faster, more affordable technology to make chrome-looking 3D parts with different finishes.

IMD-IML. Printing of decorations on film for its subsequent placement in the injection mold, where the design becomes part of the final piece.

IME. In-Mould Electronics technology based on injection over film. Applied to products such as vehicle interior consoles, displays. Includes sensors and smart flexible objects for application in industry and society IoT (Internet of Things)

DOUBLE THERMOFORMING. Over moulding a part with a decorated foil combining three elements, temperature, upper high pressure and lower vacuum system. The decorated foil is integrated with the previous part forming a solid and non-detachable unit.

STICKERS & DECORATION. Can be printed on all types of materials (polyester, polycarbonate, PVC, PMMA, water decal, ABS...)

Organizer:

GOBIERNO DE ESPAÑA
MINISTERIO DE ECONOMÍA, COMERCIO Y EMPRESA
ICEX

www.icex.es

ICEX España Exportación e Inversiones is a public business organization which works worldwide with the objective of promoting the internationalization of Spanish companies in order to improve their competitiveness, as well as boosting foreign investment in Spain. ICEX offers its services through 31 Provincial and Territorial Trade Offices in Spain, 98 Economic and Commercial Offices worldwide, the largest foreign network, and 29 Business Centres abroad. Every year, ICEX organizes around 1,200 promotional activities in foreign markets and answers over 90,000 queries on internationalization.

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In collaboration with:

FUNCTIONAL PRINT CLUSTER
PRINTED INTELLIGENCE
10 YEARS

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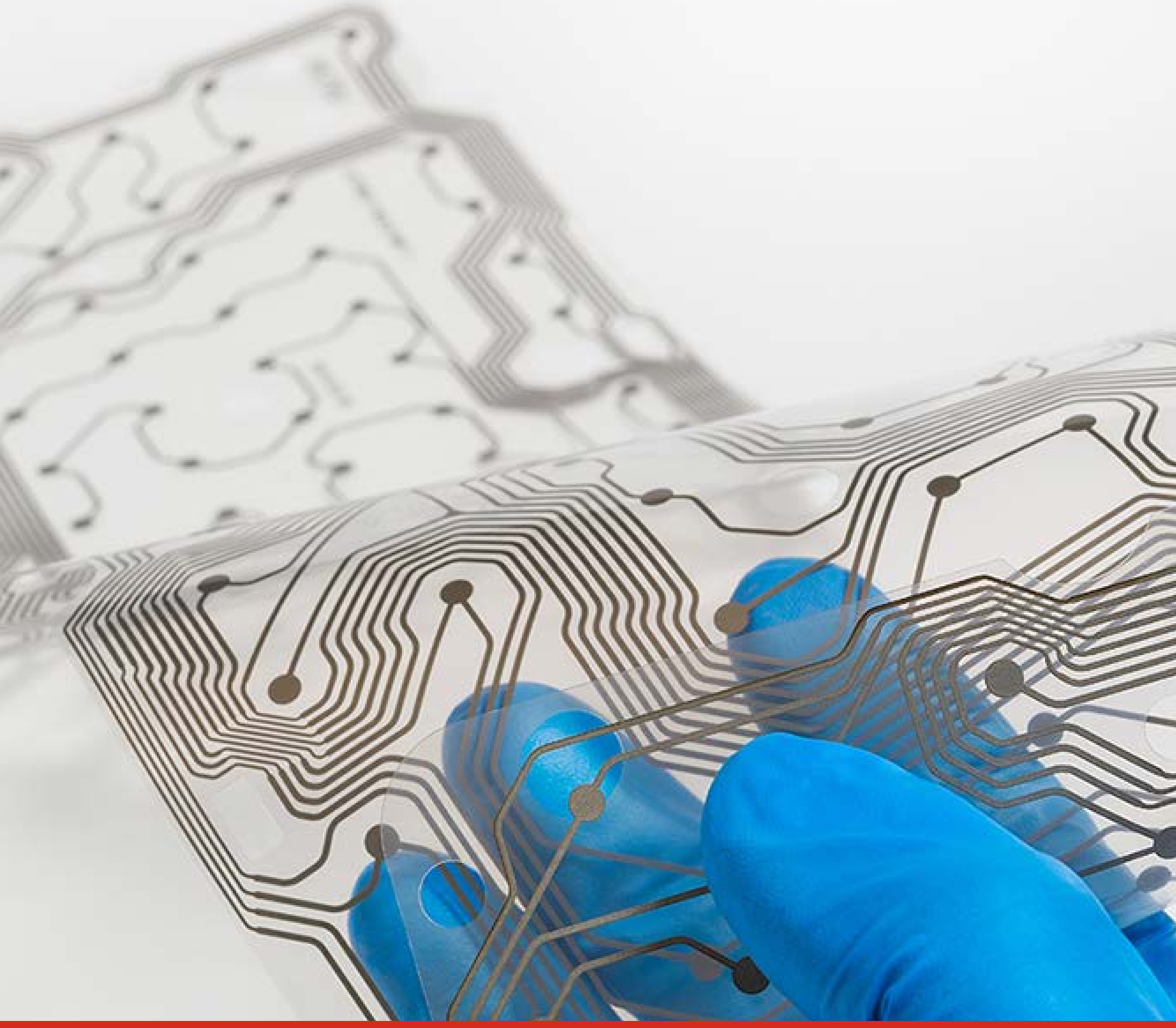

Organizer:

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ICEX

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EUROPEAN UNION

European Regional Development Fund
A way to make Europe

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