



PRESS DOSSIER

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1. Our Mission: to Innovate with Business



[Eurecat](#) is a Catalonia-based technology centre. It provides the industrial and business sector with cutting-edge technology and advanced expertise in order to respond to **companies'** innovation needs and boost their competitiveness. The added value provided by Eurecat accelerates innovation, reduces expenditure on scientific and technological infrastructure, lowers risk and provides specialist knowledge that is tailor-made to fit each company.

Eurecat draws on the experience of over **700 professionals**, who together generate an **annual income of 55 million euros**. It provides services to **2,000 companies** in the **industrial, digital, biotechnology and sustainability** fields. Eurecat has facilities in Barcelona, Canet de Mar, Cerdanyola del Vallès, Girona, Lleida, Manresa, Mataró, Reus, Amposta, Tarragona and Vila-seca. It is a partner in over **200 major Spanish and international R&D&I consortiums and projects** with high strategic value, and boasts **181 patents** and **ten spin-offs**.

Applied R&D, technology services, highly specialist training, technology consulting, organizing events and conferences to disseminate scientific and technological developments: these are just some of the services Eurecat offers to large companies and SMEs in every sector.



Eurecat works with the majority of Catalonia's business areas, including the food industry, energy and resources, the automotive, aviation and rail industries, industrial processes and systems, the public sector, the creative and cultural industries, textiles, health, construction, trade, finance and insurance, ICT, biotechnology, training, sports, tourism, consulting, and the chemical industry.

It also coordinates the Communities of Water and Industries of the Future of the **Smart Specialization Strategy for Catalonia** (RIS3CAT), which is being rolled out in key industries for research, innovation and industrial policy until 2020.

In the words of **Daniel Altimiras**, the president of the technology centre, "Eurecat partners the economic and social community to compete in a tough global market where it is essential to be technologically robust and sustainable". In this sense, Daniel Altimiras is passionate "about joining forces to continue making Eurecat a leader in technology transfer in Catalonia, Spain, Europe and worldwide so as to embed industry in the region and generate quality jobs".

2. Innovative Products and Services



The basis of Eurecat's activities consists of applied R&D services, with a focus on providing solutions that meet the specific needs of the market through the acquisition of new expertise and channelling this expertise into the creation of new products, processes or services (or the improvement of existing ones), with the help of multidisciplinary expert teams.

Eurecat also boasts its own laboratories and equipment, with the capacity to work on: smart objects; product improvement; normative evaluation; technical assistance for moulds and related processes; materials; surface treatments for functional printing, textile technology and high-performance fabrics; virtual visualization; audio; culture and tourism; and app-testing. Its infrastructure and the know-how of its professional staff are offered to companies in order to serve their needs with regard to prototyping and the organization of pilot schemes.

Eurecat also offers technology consulting for the management of strategy and innovation, public funding and projects, competitive intelligence, industrial management systems and process improvement. Additionally, it offers integrated **services to help define companies' strategies for innovation and technological development**, along with processes and systems to help them develop their R&D&I activities internally.

Another of the centre's specializations is the provision of highly specialist training and knowledge transfer, through the use of multidisciplinary training programmes aimed at companies and professionals that are interested in boosting their expertise in the field of technology and innovation.

Eurecat's portfolio of services also includes the creation and implementation of promotional and dissemination activities for technological innovation: activities which then become a meeting-point for thousands of professionals.

3. Areas of Technological Specialization

Industry 4.0: Eurecat's capabilities have made it a benchmark for implementation of the Industry 4.0 approach, which offers solutions designed to create closer links between the field of artificial intelligence and manufacturing processes.

Drones and mobile robotics (collaborative and industrial): Eurecat has developed innovative technologies that allow the emergency services to pilot rescue drones using smartphones and tablets, and to obtain information from the unmanned vehicle and use it to coordinate the units involved in the rescue process. In the field of autonomous systems, Eurecat works with companies to automate logistics processes in the transport industry and has helped develop monitoring processes for wineries and farms, among others.

New Materials: Eurecat has developed a new technology of dispersion of additives and nanoadditives within the plastic, which consists in the introduction of an ultrasonic vibration system where the plastic is mixed with the different additives in order to obtain personalized material. With this technology, which is being patented, Nanoadditive plastics improve mechanical performance, increase barrier properties and even reduce their weight and the final cost of the pieces to be manufactured.



Microtechnology: Eurecat boasts an ultrasound-based technology that is unlike any other in the world, as it enables the fabrication of microscopically small pieces of plastic that are invisible to the human eye. There is a growing demand for extremely precise processes such as this one, and its potential applications range from watchmaking to the mobile phone industry.

Connected health: Eurecat has developed eKauri, an advanced remote-assistance platform that has the ability to anticipate potential risks. The centre has also contributed its technological know-how to the development of hearing aids that offer maximum precision. Additionally, it has worked with the Catalan company Telehealth Devices on the creation of iCardio, the world's smallest wireless digital electrocardiograph.

Smart textiles: Eurecat has a facility that specializes in the design and production of smart textiles. These textiles have an endless number of novel applications, including heated fabrics, fabrics that improve the wearer's safety by improving visibility, and sportswear fabrics that monitor the wearer's vital signs and/or help them look after their health.

Binaural audio and interactive, immersive 3D sound: Eurecat has developed Sfear, a proprietary technology that is designed to produce and reproduce interactive and immersive 3D sound. It also enables the sound to interact with the movement of the listener's head.

2D and 3D audiovisual post-production and special effects: Eurecat has developed new technology that improves the efficiency of 2D and 3D post-production processes and the creation of special effects. The new development will lower costs and improve efficiency for production processes and the automation of workflows. In doing so, it also helps improve the competitiveness of small- and medium-sized production companies.

Intelligent vehicles and electric cars: Eurecat is involved in a number of projects related to the development of intelligent vehicles and collaborative mobility, and initiatives to promote the use of electric cars in Catalonia. The centre has a dedicated laboratory for battery development, which is working with the latest production and storage technologies in order to improve the range and reliability of electric vehicles.

Biotechnology and functional foods: Eurecat boasts a dedicated biotechnology unit that carries out nutrition- and health-oriented research in fields such as functional foods, which provide specific nutritional characteristics designed to improve health and prevent disease.

Omic sciences: Eurecat helps companies identify, create and approve new ingredients, functional foods and nutraceuticals, in order to increase their **market potential and enable them to improve consumers' health and wellbeing.** Eurecat also boasts a Centre for Omic Sciences, a scientific facility that is accredited by Rovira i Virgili University and is equipped with cutting-edge tools and technology in the areas of metabolomics, proteomics, transcriptomics and genomics. Its aim is to demonstrate their positive impact on health and their mechanisms of action, with a view to developing a personalized approach to nutrition.

4. Notable Eurecat Projects



Reduced energy consumption for water resources:

[WatERP](#) has developed an open management platform that allows for the integration of all of the knowledge areas related to the supply and demand of water within the supply and distribution cycle.

Intelligence for industrial processes: [PREVIEW](#)

(PREdictive System to Recommend Injection Mould Setup) aims to provide the injection-moulding industry with process-control mechanisms that are able to reduce mould setup time by 50% and energy consumption and waste by 20%, as well as increasing productivity by 30%.

Personalized eyewear using 3D printing technology: Optician2020 combines advanced manufacturing technologies, personalized design, knowledge engineering, sustainable production technologies, anthropometry and ergonomics in order to demonstrate that the manufacture of personalized eyewear can become a local, profitable business, while remaining sustainable and fashion-conscious.



Drones to monitor the sewer system: [ARSI](#) has developed a micro air vehicle (MAV) to carry out autonomous inspections of the sewer network. It is a solution that bypasses the current restrictions on mobility while making the inspection process safer and more flexible.

Robotics for winemaking: [GRAPE](#) has developed an automated robot that can be programmed to perform control and maintenance work in vineyards. The robot is able to navigate uneven terrain and examine and monitor the health of

the vines. This new technology will give winemakers greater control over the harvesting process and reduce the environmental impacts associated with the use of chemical products.

New smart textiles: [DEPHOTEX](#) has developed flexible photovoltaic cells for use in the creation of photovoltaic textiles, which in turn may lead to the production of new, low-cost, industrially viable textile products that are flexible, lightweight, durable and resistant to water and dust.

More sustainable construction: [BUILT2SPEC](#) aims to perfect and integrate a new group of advanced technologies that will enable automated inspection during the construction process.

New materials from recycled waste: [REWASTEE](#) offers a new and unique material for the sustainable construction industry: a membrane that is made from waste generated by the metal industry and is capable of providing soundproofing and heat insulation. This new product, which is the first of its kind, promises greater energy efficiency for construction projects while lowering costs.

Brain-Computer Interface technologies: [BackHome](#) is the first project to take Brain-Computer Interface (BCI) technology out of the laboratory in order to bring remote-assistance services and inclusion initiatives into the homes of those who need them.

5. Creating Technology-Based Companies

Eurecat supports projects that aim to create new technology-based companies, using technologies developed by Eurecat itself, in collaboration with other companies, and/or developed through technology-transfer activities. **At present, the centre has a total of ten spin-offs.**



[NEOS Surgery](#)

Develops innovative devices for cranial and spinal neurosurgery.



[TORROT Electric Mind](#)

Torrot has designed an electric scooter that boasts an innovative recharging solution.



[ULTRASION Innovative Ultrasonic Solutions](#)

Ultrason offers a flexible, reliable and cost-effective solution for the production of functional micro-parts with complex forms.



[AIR-FI Impemer](#)

Specializing in the commercialization of ICT (Wi-Fi + ILBS).



[PMS](#)

PMS develops inflatable structures with built-in multimedia systems.



[PLASTIA](#)

Intelligent IT solutions for manufacturing.



[WatENER](#)

Intelligent management of distribution networks.

6. Centres of Excellence and singular initiatives



The Big Data Centre of Excellence (Barcelona) is an initiative led by Eurecat with support from Oracle, the Government of Catalonia and Barcelona City Council. Its aim is to build, evolve and collate high quality tools, datasets and infrastructure in the field of Big Data, and make them available to companies so that they can define, experiment with and validate their Big Data models prior to final implementation. The Big Data CoE (Barcelona) also offers services for attracting professional talent (i.e. data scientists, data engineers and data business analysts), in addition to organizing events and activities designed to publicize trends and examples of success in the field.

The Plastic Processing Pilot Plant is an international benchmark for the transformation of plastic materials. Located in Cerdanyola del Vallès (Barcelona Province), this Eurecat-backed initiative is southern Europe's largest pilot plant for new technologies in plastic transformation. Plastic injection, along with other polymer-moulding processes, remains the leading industrial process for the replication of parts, owing to its exceptional capacity for geometric flexibility and the cost reductions achieved through large production volumes.



The B. Braun-Eurecat Research Laboratory is the fruit of collaboration between Eurecat and the leading healthcare company B. Braun. The laboratory, based in the centre's headquarters in Cerdanyola, is responsible for a number of innovative developments in advanced materials. It is a scientific and

technological facility oriented towards the development of processes and products of a highly strategic nature, and boasts cutting-edge equipment such as various extrusion and mixing machines, injection machines and polymer-characterization devices.

The Eurecat Laboratory of the Future offers a way to assess, efficiently and economically, any R&D&I proposal in order to determine its viability and convert it into an innovative product or process. The Eurecat Laboratory of the Future has enabled the centre to develop hydrochromic swimwear (swimwear that changes colour when it comes into contact with water) for the Ukrainian synchronized-swimming team, and plastics with metal-conducting properties.



Reimagine Textile is a collaborative network that connects the main actors in the textile field in order to develop a new vision of the industry for the 21st century. New materials, production processes and channels, the proliferation of data, devices and sensors, and the phenomenon of hyperconnectivity are combining to produce a new revolution in the world of textiles. With the backing of Eurecat, TecnoCampus Mataró and the Centre for Textile Research and Technology Transfer in Canet de Mar, Reimagine Textile aims to become a key player in this revolution by drawing on textiles, technology, innovation, talent, new business models, new areas of competence, design and digitalization.

+PIME is a joint initiative of Eurecat, the PIMEC business association, the Association of Internationalized Industrial Companies and the Catalan Association of Industrial Engineers, and is supported by the Government of Catalonia. Its aim is to promote technological innovation among small and medium-sized businesses in Catalonia. The PIME Centre of Excellence for Innovation provides companies with a comprehensive range of services, including consulting, advice and employee training.

7. The Board of Trustees

The Board of Trustees is Eurecat's most senior governing body. It consists of a representative nominated by each of the former centres for advanced technology in Catalonia that were subsequently merged to form Eurecat (namely, Ascamm, Barcelona Digital, Barcelona Media, Cetemmsa and CTM), a representative of Leitat, plus two representatives from the Government of Catalonia and representatives from the following companies: Simón, Dicomol, Cellnex, Hartmann, Sener, Reig Jofre, Hallotex, Digital Legends, Circutor, Indulleida, ICL-Iberpotash, CCMA, Carinsa, Hewlett Packard, Relats, and Hipra i Comexi. There is also a representative from Rovira i Virgili University and the UPC (Universitat Politècnica de Catalunya).

The purpose of these companies' presence on the Board is to consolidate the participation of business in the seven areas that fall within the remit of RIS3CAT, whose implementation is supported by Eurecat.

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