

The Basque Country will host Europe's most important metrology congress for the first time

- *IDEKO and TEKNIKER are organising the 8th edition of the European 3DMC event, dedicated to the science of measuring, from September 26 to 28*
- *Presentations, talks and live demonstrations about the latest technological developments in the field of advanced manufacturing will be given at the facilities of both centres.*

July 6, 2023 - Research Centres [IDEKO](#) and [TEKNIKER](#), members of the *Basque Research and Technology Alliance (BRTA)*, co-organise the 8th edition of [3DMC](#), the main metrology congress in Europe, which will be held for the first time in the Basque Country from 26th to 28th September.

Metrology is the science of measurement. The application in industrial manufacturing, known as industrial metrology, is essential to obtain efficient manufacturing and maintenance processes as it ensures accurate component measurements and improved product quality. In addition, metrology integrated into the manufacturing process allows on-site location of manufacturing errors, leading to improved efficiency and an optimal use of resources.

The IDEKO and TEKNIKER facilities, located in Elgoibar and Eibar (both in Gipuzkoa), will host this annual event that will bring together more than a hundred experts in the field: from representatives of the Academy, providers of technological solutions, to research personnel and professionals from industry.

Over three days, the congress offers presentations, talks and live demonstrations on the latest advances in dimensional metrology technology, including measurement technology such as photogrammetry, vision, portable measurement systems such as laser trackers or laser scanners, and applications such as the digitisation of surfaces through 3D scanning or the integration of metrology during inspection of advanced manufacturing processes.



Space for networking

In addition, the 3DMC event fosters collaboration and boosts innovation with the aim of finding out more about the different key players in the sector. The latest developments and instruments in industrial metrology are showcased in an exhibition space where it is possible to try out and see the instruments and measuring systems up close.

Attendees of the conference will learn about success stories in industrial applications in sectors such as automotive, aeronautics, space or wind energy, among others, as well as about unique projects in the Science Industry and space exploration.

The event will also provide an opportunity to strengthen ties and promote networking in a relaxed atmosphere through two ice-breaking events that will take place during the congress.

About 3DMC

3DMC is an annual European congress focusing on the application and development of 3D measurement technology for industrial and research purposes.

During three days, research personnel and end users of metrology systems can discuss the most innovative topics in this science and establish synergies between the main players in the sector.

The organising committee includes leading scientific and technological research actors such as the National Physical Laboratory (NPL), University College London (UCL) and RWTH Aachen University.

About IDEKO

The Basque research centre, IDEKO, member of the BRTA alliance, prizes its more than 35-year track record devoted to research, development and innovation of new technologies applied to advanced manufacturing with a special focus on machines and precision processes and on artificial intelligence applied to manufacturing.

Its R&D&I activity is geared towards offering innovative solutions that contribute to the competitiveness of businesses and is organised around 4 research groups: Dynamics and Control, Manufacturing Processes, ICTs and Automation and Design and Precision Engineering.

IDEKO's participation in 3DMC is coordinated by the Precision Design and Engineering research group, a team with a clear-cut specialisation in ensuring the precision of machines and mechanisms of manufacturing systems.



In the framework of this specialisation, this group works on the development of measurement systems based on artificial intelligence and 3D vision, advanced modelling to determine the precision of mechanisms and machines, on the volume and experimental characterisation to identify the ways in which machines lose precision and on the design of high-precision systems, among other solutions that contribute to improving the precision and efficiency of industrial processes.

As part of this commitment to specialisation, the centre has a Precision Engineering laboratory where the latest innovations and advances in metrology will be showcased.

About TEKNIKER

TEKNIKER, a member of the BRTA alliance, is an experienced research centre with a 42-year specialisation in Advanced Manufacturing, Surface and Materials Engineering and ICT for production. Its mission is to bring growth and welfare to society as a whole through R&D&I, contributing in a sustainable way to the competitiveness of the business fabric.

Its Advanced Manufacturing strategy aims to optimise and develop new processes that provide innovative performance in terms of manufacturability and precision. The centre has a long track record in developing solutions to improve the precision of industrial handling and production equipment, both robots and machine tools, to meet the needs arising from the digitalisation and automation of industry.

TEKNIKER's participation in 3DMC is led by its Precision Engineering and Industrial Metrology research group. This team drives the development of measurement technologies and procedures aimed at generating new technological services and in-process measurement solutions.

The team offers companies and manufacturers comprehensive measurement solutions based on embedded digitisation technologies, modelling capabilities and uncertainty allocation, as well as advanced data processing and management methodologies.

Tekniker has a dimensional metrology laboratory, which in turn acts as a national primary laboratory, in close collaboration with the Spanish Metrology Centre (CEM).

[More information](#)

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