

EURAMET Press Release: Metrology Research: A strategic pillar for Europe's competitiveness and sovereignty

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Metrology Research: A strategic pillar for Europe's competitiveness and sovereignty

Reports confirm that European Metrology Research Programmes deliver high social, economic, and scientific impact

Metrology, the science of measurement, is a cornerstone of modern society, technology and policy, ensuring precision in critical areas, from advanced manufacturing to clean energy or cancer treatment.

In Europe, EURAMET's metrology research programmes, the [Metrology Partnership](#) and its predecessors [EMRP](#) and [EMPIR](#), bring together the measurement science community with stakeholders from all areas to collaborate in joint research tackling global challenges. Being co-financed by the European Union and the participating states, the programmes set out to enable innovation, competitiveness, and resilience across Europe.

Several reports, including a study on economic benefit and evaluations on performance, demonstrate that the programmes deliver high impact across economy, science and society and strongly underpin the EU's strategic goals from decarbonisation to digital and green transitions and sustainable prosperity.

Every Euro invested in European metrology research returns four to the economy

A new [EURAMET report quantifies the economic benefit](#) resulting from the finalised EMRP and EMPIR and the ongoing Metrology Partnership. It reveals that the total estimated economic turnover is 1.6 billion Euro from new or significantly improved products and services that can be attributed to the research activities of the predecessors of the Partnership. A similar impact is expected from the Metrology Partnership currently underway.

In other words: every 1 million Euro of EU funding generated more than 4 million Euro of turnover for the economy from the sale of new or improved products and services powered by metrology.

The Metrology Partnership and its predecessor programmes:

- Demonstrate high economic return on public investment in research
- Support faster innovation cycles and technological sovereignty
- Ensure the safety, quality, and well-being of society
- Align with EU priorities for digital and sustainability transformation, including green transformation of the energy infrastructure

Further details and the full report are available at [EURAMET's website](#).

EURAMET Chairperson **Dolores del Campo** states:

*"Past and current metrology research programmes have **proven to be accelerators of innovation**. Today, collaboration matters more than ever as we navigate transformative technologies like quantum and artificial intelligence. **The future demands a coordinated,***

*strategic effort in metrology research that protects Europe's competitiveness and technological sovereignty while delivering tailor-made solutions and services for industry and the well-being of citizens. Our goal is clear: build a strategy that not only secures independence but also **creates an inclusive infrastructure.***

Evaluations confirm strategic importance of metrology

The [evaluation of the Metrology Partnership](#) by the European Commission and the [Independent Expert Report](#) on EMPIR and the Partnership confirm the strategic importance of metrology for Europe. The initiatives have been vital in strengthening Europe's scientific and industrial leadership and delivered cutting-edge measurement capabilities that underpin innovation, competitiveness, and societal progress across the continent.

The following benefits were particularly emphasised:

- Strengthening the competitiveness of European companies
- Supporting the digital and green transition through innovative metrology
- The involvement of stakeholders along the entire value chain
- Promoting cross-border compatibility in metrology

State-of-the-art metrology research is seen as essential to prevent dependencies towards third countries in critical areas, including all technologies that require precision and quality. The structured EU support provided the metrology community with a framework for increased coordination of research and collaboration, reducing fragmentation and increasing Europe's strategic autonomy.

EURAMET Vice-Chairperson (GA), **Annette Röttger** adds:

*"Joint European metrology research has delivered remarkable achievements, advancing not only technologies but the vision of a united Europe. Every country depends on accurate measurements, and this shared need brings us together. Through EURAMET, **we strengthen National Metrology Institutes and build capacities across borders**: from north to south, east to west. In times when everything seems to be open to question, **metrology creates trust**. Trust in measurements, trust in facts, trust that wherever you are in Europe, reliable data are powered by metrology."*

Building on achievements for Europe's future

As Europe navigates global challenges, the programmes illustrate how coordinated investment in metrology research delivers long-term benefits for citizens and industry alike. A continued EU-level investment in metrology is crucial, especially as other major global economies are strategically investing in metrology to boost their technological sovereignty.

A future metrology initiative would foster Europe's competitiveness by enabling areas including advanced materials, quantum technologies, and energy solutions, secure strategic sovereignty in critical technologies and support policy implementation through robust measurement frameworks in many fields such as climate, health, and digital transformation. In a world that has changed, metrology must also rise to its full potential in serving the needs of both civilian and defence applications.

Maguelonne Chambon, EURAMET Vice-Chairperson (Research) comments:

*“Across Europe, metrology has achieved **remarkable progress under a shared strategy**. Through collaborative European metrology research programmes, we’ve delivered projects that **truly respond to the needs of stakeholders** including industry and society. Metrology, a cross-cutting discipline serving many fields in science and technology, is setting a strong **foundation for innovation and trust**. Europe faces global challenges, rapid technological and biotechnological advances, digital transformation, and evolving societal needs. To safeguard competitiveness and well-being in this fast-moving world, we must continue strengthening a robust metrology infrastructure that is built on research and powered by collective effort. **The European metrology community stands ready to drive progress and contribute to Europe’s future.**”*

For more information and a variety of examples from joint metrology research projects visit the [Powered by Metrology website](#).