

EURAMET and the Role of EMNs

Open Stakeholder Meeting of the EMN Advanced Manufacturing

10 October 2022

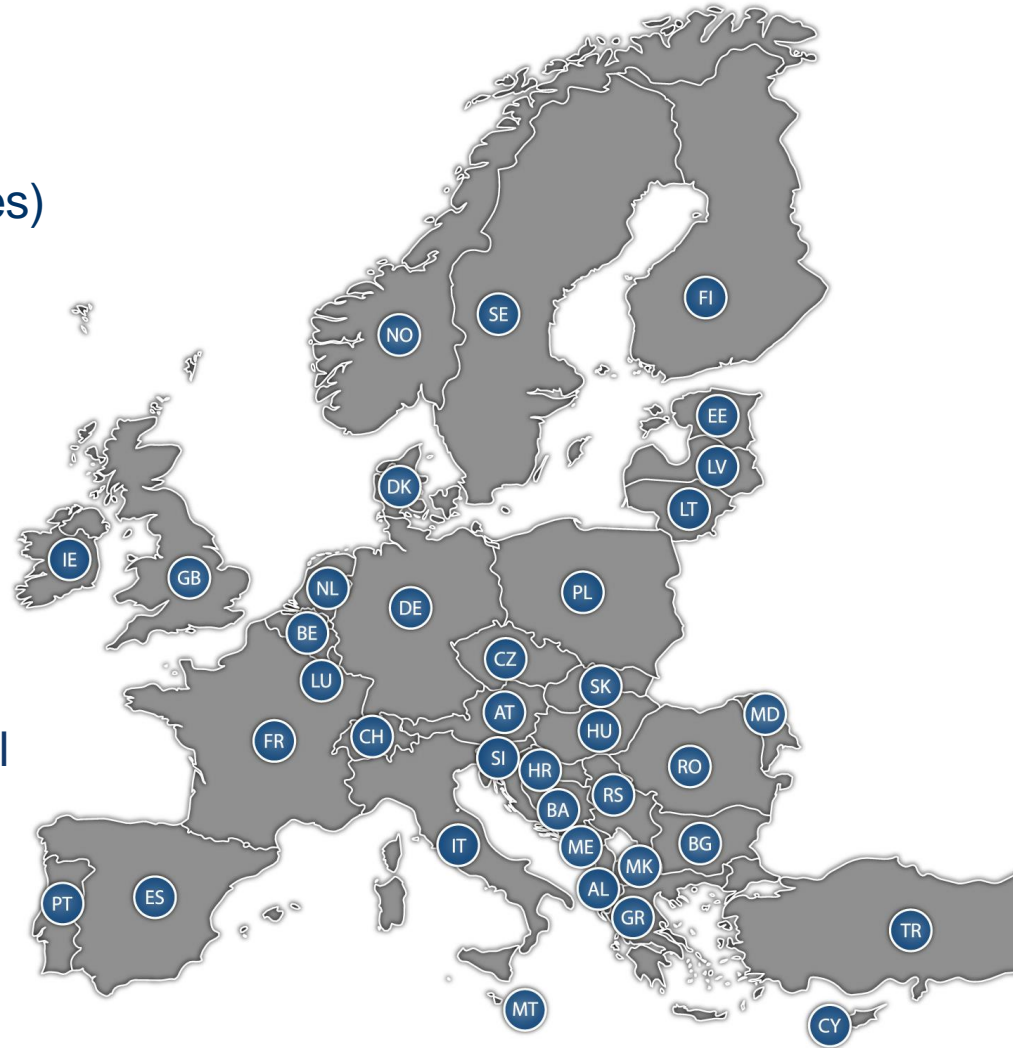
Jörn Stenger
EURAMET Chairperson

EURAMET e.V.

The European Association of National Metrology Institutes



- **37 National Metrology Institutes** (Members)
- **76 Designated Institutes** (Associates)
- **16 international Liaison Organisations** (e.g. IAEA, BIPM)
- Providing stakeholders with **world-leading measurement solutions and standards**
- Securing **world-wide trust and acceptance** of measurements, for all aspects of business and society
- Implementing **Metrology Research Programmes**



Strategic priority areas



The **EURAMET 2030 strategy** and the **Partnership on Metrology** respond to the strategic priorities Horizon Europe

- Green Deal
- Digital Transformation
- Health

and include

- Regulation
- The new SI
- Capacity building

European Partnership on Metrology



- Implemented by EURAMET e.V., FFPA signed 31 March 2022
- Co-funded by EU (300 M€) and Member States (390 M€)
- General Objectives:
 - to develop a sustainable, excellent and coordinated metrology system at European level
 - to ensure that state-of-the-art metrology capabilities are taken up by ecosystems
 - to increase the impact of metrology on societal challenges
- Specific objectives include:
 - to develop new research capabilities which are built within the framework of new European metrology networks
 - to support the use and adoption of the new metrology capabilities in key emerging and enabling technologies
 - to unleash the potential of metrology among end users, including SMEs and industrial stakeholders



EPM – call topics & schedules



2021	Green Deal
2022	Health, Integrated European Metrology, Digital transformation
2023	Fundamental, Industry
2024	Green Deal, Digitalisation
2025	Health, Integrated European Metrology
2026	Fundamental, Industry
2027	Green Deal

- Normative (& regulation) each year
- Research Potential (CB) the first 5 years
- “*Integrated European Metrology*” is SI development with a focus on joint/coordinated capabilities and infrastructures

Participant Portal: <https://www.metpart.eu>

Overall strategic aims of the Targeted Programme “Metrology for Industry”

- To develop new or improved measurement methods and techniques for any industrial applications including traditional as well as new sectors of industry.
- Aimed at key driving innovation in industrial production and facilitating new or significantly improved products through exploiting knowledge in the European measurement institutes.
- Support development of new industries based on alternative or new technologies like e. g. digital transformation including industrial use of artificial intelligence or Internet of Things (IoT), biotechnologies, or novel technologies supporting the Green Deal.

Documented industrial needs, encourages proposals from small and medium size enterprises (SME's) and their active participation in projects.

Call scope of TP fundamental scientific metrology

- Bring together the **best scientists** in Europe and beyond, whilst exploiting the unique capabilities of the Metrology Institutes
- Aim at **excellent science exploring new techniques** or methods for present and future applications in metrology and for the development of novel primary measurement standards.

The call on fundamental scientific metrology does **not predefine specific technical topics** and is open to all research involving fundamental metrology. It is expected that the R&D will include high risk and high innovation research proposals.

Proposals may come from all metrological areas such as physics, **material science**, chemistry, biology, statistics and mathematics, as well as from interdisciplinary and/or multidisciplinary areas. Metrology for space science and technology is also included.

European Metrology Networks



Objective: Create sustainable structures in areas of strategic importance for the future of European metrology



The Networks...

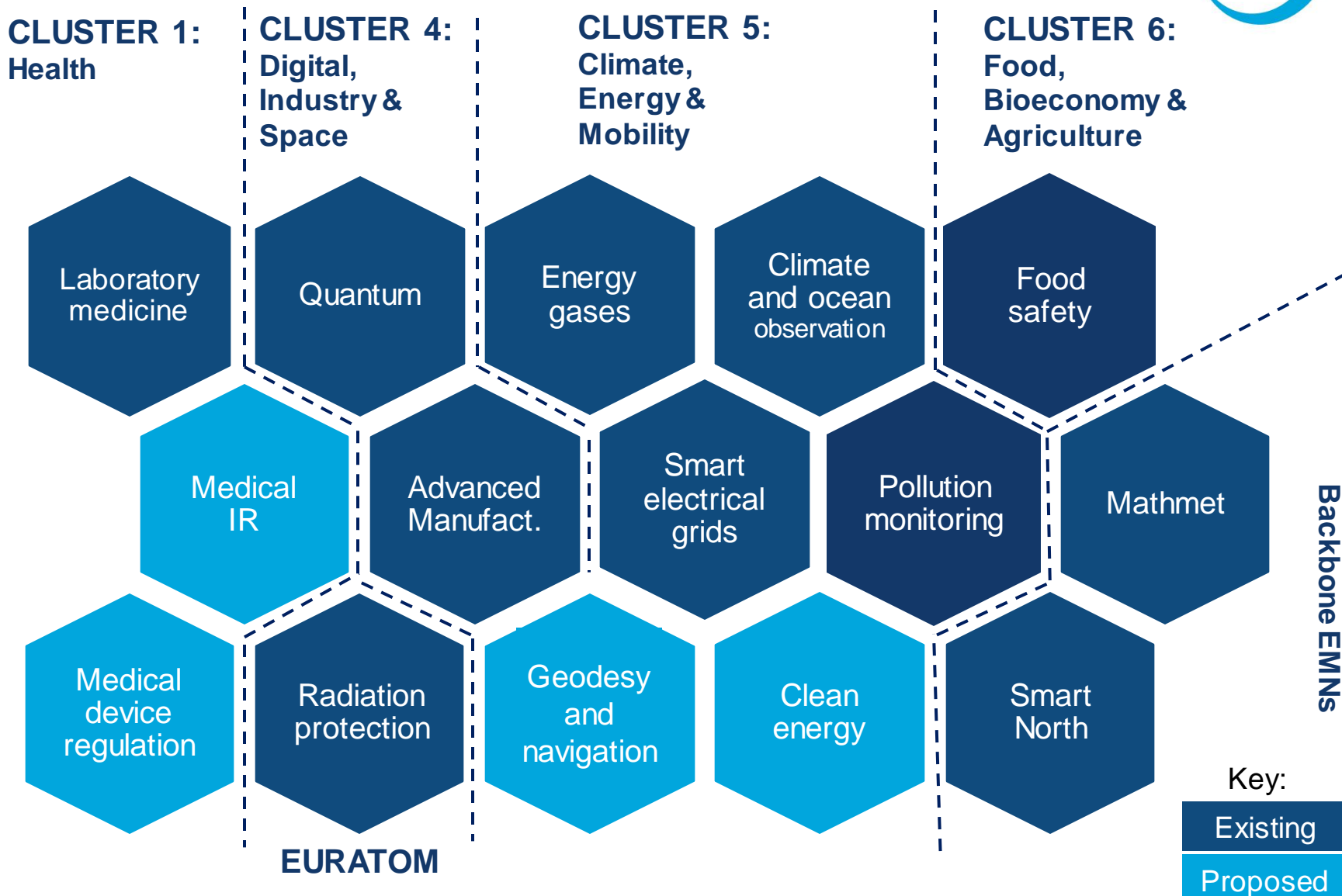
- cover areas of major strategic importance, with a **European dimension**
- establish close links with a wider **stakeholder community**, including other European Partnerships
- strive for **scientific excellence**
- develop and coordinate a **common metrology strategy & infrastructure** to support innovation, public policy, and regulation

EMNs in operation



Title	Chair/Acting Chair
Advanced Manufacturing	Harald Bosse (PTB)
Climate & Ocean Observation	Emma Woolliams (NPL)
Energy Gases	Annarita Baldan (VSL)
Mathematics and Statistics	Markus Bär (PTB)
Pollution Monitoring	Paola Fisicaro (LNE) <i>new</i>
Quantum Technologies	Ivo Degiovanni (INRIM)
Radiation Protection	Annette Röttger (PTB)
Smart Electricity Grids	Gert Rietveld (VSL)
Laboratory Medicine	Rainer Stosch (PTB)
Safe and Sustainable Food	Andrea Rossi (INRIM) <i>new</i>
Smart Specialisation in Northern Europe	Jan Johansson (RISE)

EMN Landscape – Cluster View



EMN Liaisons with other European Partnerships & Initiatives

