



# **euro lab**




The European Federation of National  
Associations of Measurement,  
Testing and Analytical Laboratories

**EUROLAB: Developing an international  
cooperation**

 **Full members**

-  AUSTROLAB (Austria)
-  BELAM (Belgium)
-  BULLAB (Bulgaria)
-  CROLAB (Croatia)
-  EUROLAB-CZ (Czechia)
-  EUROLAB Danmark (Denmark)
-  Finntesting (Finland)
-  EUROLAB France (France)
-  EUROLAB Deutschland (Germany)
-  Hellaslab (Greece)
-  ICELAB (Iceland)
-  ALPI (Italy)
-  FENELAB (Netherlands)
-  POLLAB (Poland)
-  RELACRE (Portugal)
-  FELAB (Spain)
-  EUROLAB Sverige (Sweden)
-  EUROLAB CH (Switzerland)

 **Associate members**

-  LEBLAB (Lebanon)
-  MAKLAB (FYROM)
-  TURKLAB (Turkey)

 **International affiliates**

-  ASCOLAB (Congo)
-  NLA-SA (South Africa)
-  NCSL (USA)

 **Observer members**

-  Croatian Metrology Society HMD (Croatia)



# eurolab

Representing **since 1990**  
Testing, Measurement and Calibration laboratories.  
**18 Full Members,**  
**3 Associated Members,**  
**1 Observer Member and**  
**3 International Affiliates**



# **eurolab**

Grouping over **3 000** conformity assessment bodies and representing **over 150 000** technical experts and laboratory practitioners

# Communication & Public Relations

- Representation in the EU institutions;
- Monitoring selected EU legislation and international developments;
- Organising meetings and events;
- Publication of quarterly newsletter, position papers, communication materials;
- Cooperation with international stakeholders;
- Raising visibility within laboratory communities;
- Active involvement in EU projects.



Laura Martin

Secretary General



Martina Razzaboni

Policy Officer



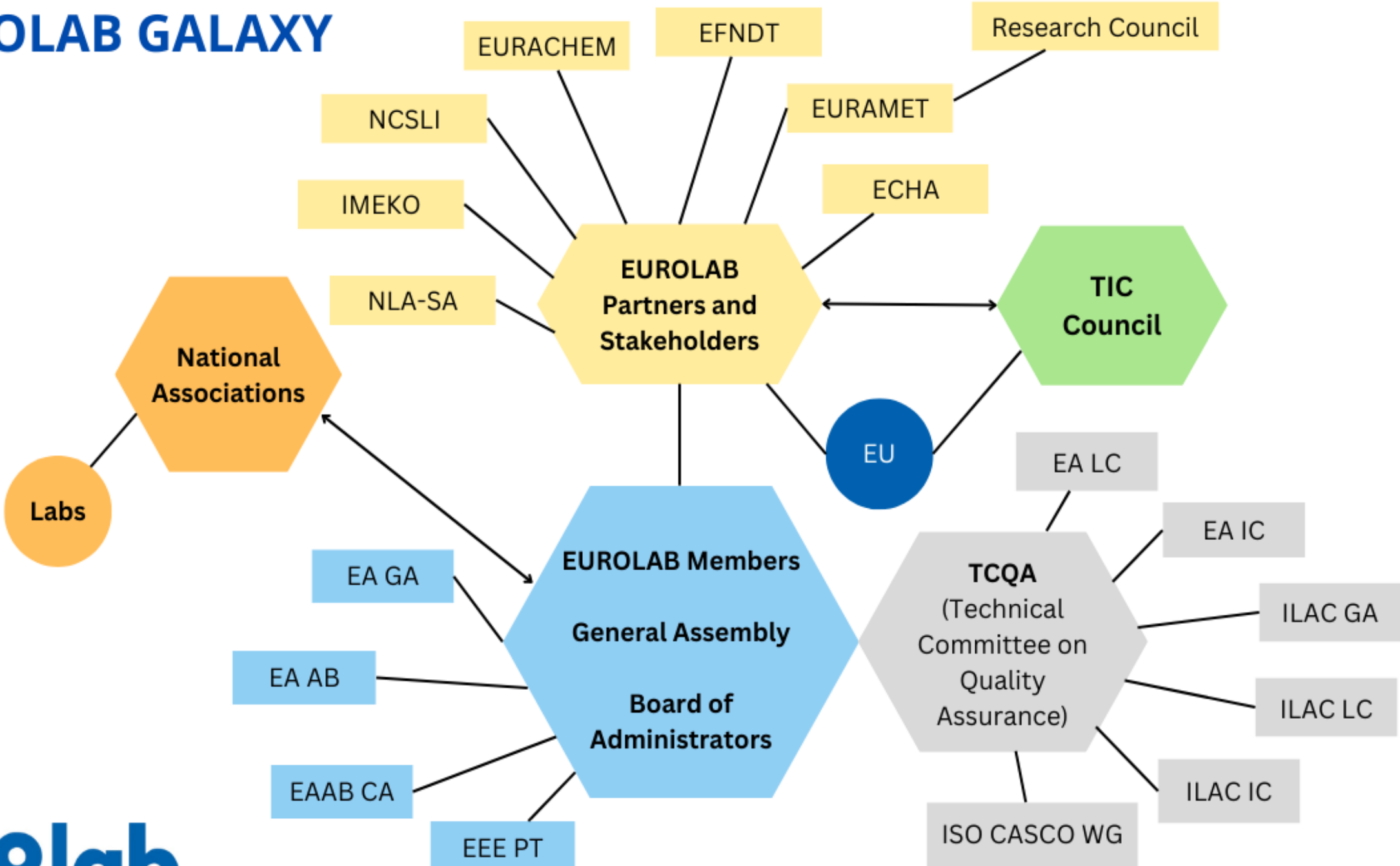
Drewin Nieuwenhuis

Former Secretary General

## EUROLAB priority areas of focus 2022

- **Regulation Bodies:** EU legislation in testing, conformity assessment and product safety developments
- **Metrology and Calibration**
- **Accreditation & Standardisation**
- **The Lab of the Future** developments including machine learning, digitalisation, cybersecurity, robotisation, AI, blockchain etc.
- **ESG:** Sustainability, Green Deal, Corporate Social Responsibility
- **Business continuity and resilience:** pandemics, climate change, and other natural events

# EUROLAB GALAXY





In 2021 and 2022 EUROLAB renewed & signed **MoUs with key organisations** and became an **accredited stakeholder of ECHA**, to enhance cooperation on key topics of relevance for the laboratory community.



We will work closely together in identifying **key activities** to further develop and undertake **collaborative tasks** and **exchange of expertise** on topics of common interest.



# EUROLAB as ECHA accredited stakeholder

[ECHA](#) - European Chemicals Agency is an agency of the European Union, implementing the EU's chemicals legislation to protect people's health and the environment. Its work also contributes to a well-functioning internal market, innovation and the competitiveness of Europe's chemicals industry.

We are participating in the following bodies and networks:

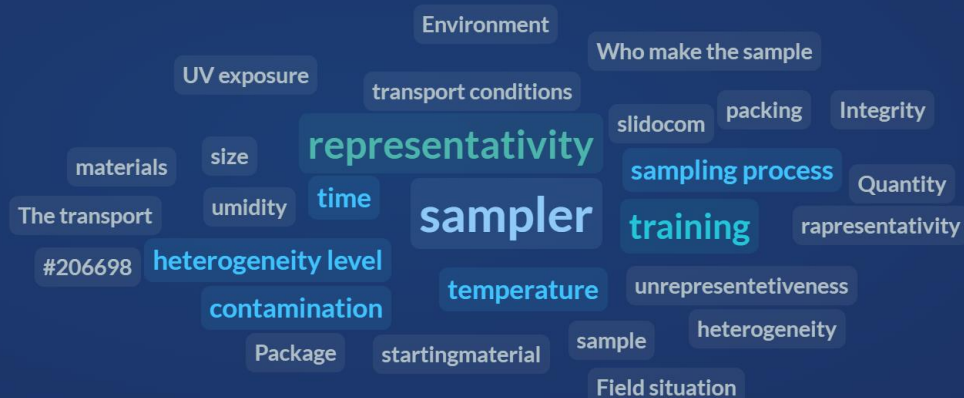
- Committee for Risk Assessment ([RAC](#))
- Biocidal Products Committee ([BPC](#))
- [HelpNet](#) (EU/EEA network of BPR, CLP and REACH helpdesks)
- Updating of guidance documents

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**ECHA**  
EUROPEAN CHEMICALS AGENCY

## What factors could influence the validity of a sample?



**“Discussion Forum on the  
Validity/Validation of Sampling  
Procedures”** - Wednesday, 4 May 2022



After this successful event, jointly organised with Eurachem to kick start the work of the Joint Task Group, a report was developed and sent to the participants, as a comprehensive summary and analysis of the discussions occurred during the event.

## Joint activities with Eurachem



EUROLAB is strongly collaborating with Eurachem on a series of topics addressed through various Joint Working Groups:

- Decision Rules
- Validation of Sampling Procedures
- Technology and Digitalisation

# Cooperation with EURAMET



EUROLAB participated as stakeholder organisation to the Metrology for Climate Action Workshop, organised online by BIPM and WMO, from 26 to 30 September.



**The European Metrology Network for Climate & Ocean Observation**  
Supporting an enhanced understanding of climate change

**Embedding Metrology into Climate & Ocean Observation**

The European Metrology Network for Climate and Ocean Observation is a collaboration of European metrology institutes, established to support engagement between metrologists and expert communities.

The network's scope encompasses metrology support for in situ and remote sensing observations of atmosphere, land and ocean essential climate variables (ECVs), plus observations of the broader essential ocean variables (EOVs) for economic and ecological purposes.

**Engaging with Climate & Ocean Communities**

The network supports partnerships between measurement specialists & observation communities, to enhance metrology best practice. For example, the network has recently partnered with project MINKE to improve oceanographic data, and supported the implementation of the Quality Assurance Framework for Earth Observation.

**Identifying & Understanding Climate Trends**

The 2015 Paris Agreement seeks to limit the overall rise in Earth temperatures to less than 1.5°C above pre-industrial levels to reduce the impacts of climate change.

To achieve this, many nations have instigated policies designed to deliver 'net zero' emissions. Governments, international organisations and businesses are asked to make complex decisions to achieve environmental sustainability targets, where such decisions rely on the availability of reliable data and quality assured information services. Metrology can provide this expertise to detect & understand climate trends.

**Get in touch!**

To get the most from the network, please feel free to contact us to tell us your needs. Sign up for the newsletter & see EURAMET's Climate Action Workshop webpage. More info at [euramet.org/climate-ocean](http://euramet.org/climate-ocean).

**Download our Strategic Research Agenda**

In September 2022, the network released a Strategic Research Agenda, offering unique insights into research priorities and opportunities for collaboration between metrology and observation communities.

EUROLAB, represented by Laura Martin, Secretary General, joined as institutional supporter the **MATHMET satellite workshop** in Porto on 2 September. The workshop followed the Joint IMEKO TC1-TC7-TC13-TC18 Symposium 2022: “Cutting-edge measurement science for the future”.

# IMEKO International Conferences

EUROLAB Secretary General, Laura Martin, will provide a keynote presentation at **IMEKOFOODS** on EUROLAB scope, activities and international collaboration with key stakeholders, which will conclude with a focus on food fraud.



**HYBRID CONFERENCE**

**6<sup>th</sup> IMEKO FOODS**

FOOD ON A GLOBAL MARKET – OPPORTUNITIES OR THREATS  
November 7<sup>th</sup> – 9<sup>th</sup>, 2022  
Dubrovnik, Croatia

The banner features a background image of the Dubrovnik city walls at night, illuminated by warm lights. The text is overlaid on a blue and white background.



EUROLAB held a special session at the **IMEKO TC6 International Conference on Metrology and Digital Transformation** on 21 September, in Berlin and online.

Key topic of the presentation was the digitalization process in small and medium laboratories.



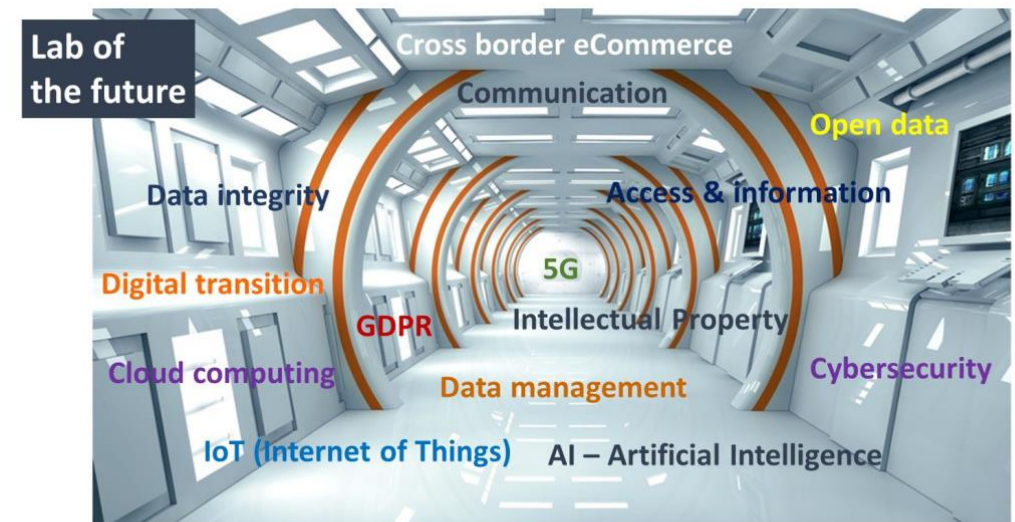
## Joint Cooperation with TIC Council

EUROLAB is continuing the close collaboration with TIC Council, working together on various key topics in relation to accreditation and standardisation matters.

As part of this collaboration, EUROLAB will be participating in the Conference **Emerging Global Trends in Laboratories for AtmaNirbhar Bharat**, jointly organised by TIC Council India and the bureau of Indian Standards on 3 November.



EUROLAB and TIC Council are also collaborating on supporting the stakeholders' position and rights in the ongoing discussions regarding the creation of the new organisation following the merger of IAF and ILAC.



# Cooperation with My Green Lab



my green lab

Marketing Partner:

**eurolab**

**my green lab summit 2022**  
community + collaboration

May 26, 2022 | Join us virtually

[mygreenlab.org/2022-sustainability-summit](https://mygreenlab.org/2022-sustainability-summit)

## EUROLAB marketing partner of My Green Lab

**Summit 2022** - 26 May 2022

It featured interactive sessions, technical talks covering waste, energy, water, and chemicals, as well as panels about community engagement around lab sustainability.

**WATT  
IQ**

**THE POWER OF DATA**

The Secretariat had a meeting with WATTIQ, already partner of My Green Lab, to discuss the possibility of a joint webinar on sustainability in labs and their participation as speakers in some of our upcoming events.



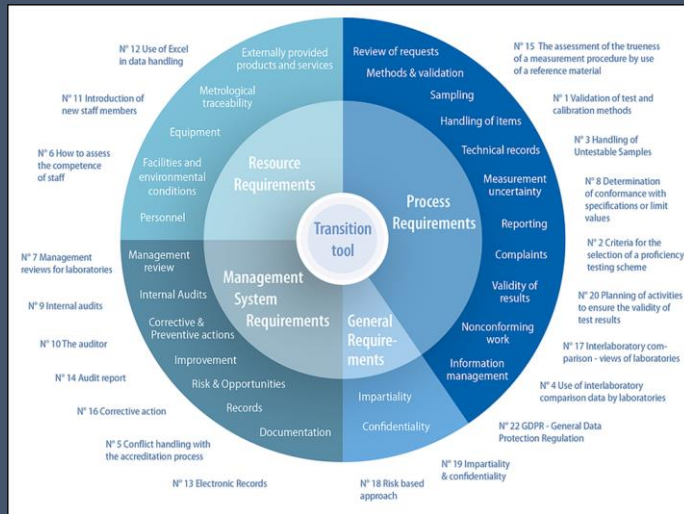


- Feedback on the EC Consultation on Market surveillance - procedures for the designation of EU testing facilities.
- EUROLAB recently sent to D3 Market Surveillance Unit of the European Commission in DG GROW a position on the decision of the European Court of Justice in Case C-142/20: Foreign Accreditation Activities in EA Territory.
- DG Communications Networks, Content and Technology - Technologies and Systems for Digitising Industry Artificial Intelligence welcomed EUROLAB position paper in response to the EC report COM(2020) 65 final: “On Artificial Intelligence - A European approach to excellence and trust”.
- EUROLAB is part of the together.eu Partners Community of the Directorate-General for Communication of the European Parliament

# Engagement with the EU and international organisations

- Further expand our collaboration with **UNIDO** organising a **joint webinar** and focusing on EUROLAB cookbooks and activities initiated in developing countries.
- EUROLAB is a member of ILAC and has strong representation in the key technical committees.





## EUROLAB ACTIVITIES

### EUROLAB TCQA: Technical Committee on Quality Assurance

- Publication of EUROLAB Cook Books on ISO 17025 and technical reports
- Joint webinars in cooperation with Eurachem on decision rules and sampling
- International forum for laboratories to exchange key information and data
- Remote Assessments Horizontal Task Force



The European Federation of National Associations of Measurement, Testing and Analytical Laboratories

### EUROLAB Special Briefing

The laboratory of the future 4.0

The laboratory world is changing. Against the background of an increasing digitisation, various processes and structures must be rethought for the laboratory of the future. Indispensable for the beginning of the new era are networked laboratory devices with intelligent and smart functions, complex holistic automation concepts and efficient interface solutions. In the age of personalization, the continuous availability of vast amounts of data places new demands on data handling and secure data storage.

Digitization has arrived in the laboratory, and with it, a paradigm shift is emerging.

Driven by increasing complexity of laboratory processes and the surge in legal regulations, efficient and safe work in the laboratory is becoming ever more important. Automated laboratory steps and optimized work processes make significant contributions to meeting these goals. It is necessary to create a flexible laboratory environment that is individually tailored to the users' current needs. At the same time, the aim is to increase the quality of the analysis' results, combined with the possibility of recording, organising and automatically evaluating larger amounts of data.



### The Lab of the Future Project

- Looking into project application under Horizon Programme
- Publication of Position Paper on AI
- Webinar on the Lab of the Future and key challenges ahead for laboratories

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The European Federation of National  
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Testing and Analytical Laboratories

**The Lab of the Future towards better  
efficiency and traceability**




## The Lab of the Future

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The laboratory world is changing while various processes and structures must be rethought. The “laboratory 4.0”: revolutionize the entire lab world, from simple logistics to data management, and novel approaches to personalized processes.

Indispensable for the beginning of the new era are:

- networked laboratory devices with intelligent and smart functions,
- complex holistic automation concepts and efficient interface solutions,
- data handling and secure data storage.

- 
- **Digitization**: “the process of converting information from a physical format into a digital one”.
  - **Digitalization**: “the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business”.
  - **Digital Transformation**: “the total and overall effect of digitalization”.

# Trends shaping new labs

## **Sustainability**

Sustainable management promote responsible use of finite resources.

## **Digitization and Laboratory 4.0**

Information and communication technology providing cutting-edge procedures and processes. Network linking people, devices, systems, sensors and products.

## **LIMS – Laboratory Information and Management Systems**

Solution to data management in modern laboratories.

## **Supply chain**

Changing factors having impact on the competitiveness and efficiency of laboratories (SaRS-Cov2, international trade conflicts, geopolitics).

## **Agility**

New structured organization of daily work.





## Emerging technologies

- Artificial Intelligence and machine learning
- Robotic Process Automation (RPA)
- Edge computing and Quantum computing
- Virtual reality and augmented reality
- Blockchain and IoT

# Benefits of laboratory digitalization

- Digitalization allows scientists to spend more time on processes that are necessary rather than administrative or repetitive
- Better management and organization
- Use of autonomous robots to ensure research and scientific experiments are faster and more accurate
- Paperless data becomes more accessible and therefore it allows for more collaborative work and advances in science – better traceability



# Challenges of SMEs Digital Transformation

## DIGITAL TRANSFORMATION

1. Insufficient Growth Capital
2. Lack of Awareness of “Digital Transformation Impact”
3. Lack of Inherent Technology Expertise & digital culture
4. Dynamic Nature of Digital Technologies
5. Managing the Data and creating a Back-Up Plan
6. Regulatory compliance
7. Digital security

# EUROLAB activities on “The Lab of the Future”

## EUROLAB Special Briefing - [The laboratory of the future 4.0](#)

This EUROLAB publication presents the changes in the laboratory world related to industry 4.0 against the background of an increasing digitisation, bringing new perspectives and possibilities for the laboratory of the future and laboratory automation as an innovation driver.



### EUROLAB Special Briefing

The laboratory of the future 4.0

## International Conference “[The Lab of the Future](#)”

The international EUROLAB-ALPI-ASSOTIC conference, which took place on 19 May 2022 in Rome (Italy), was dedicated to the Lab of the Future.

With more than 100 participants, the debate addressed key topics for the laboratory world, as digital transformation, cybersecurity, evolution of metrological skills in the digital factory and lab, and the green lab of the future.

## EUROLAB – TIC Council Joint Webinar The Lab of the future and the future of labs

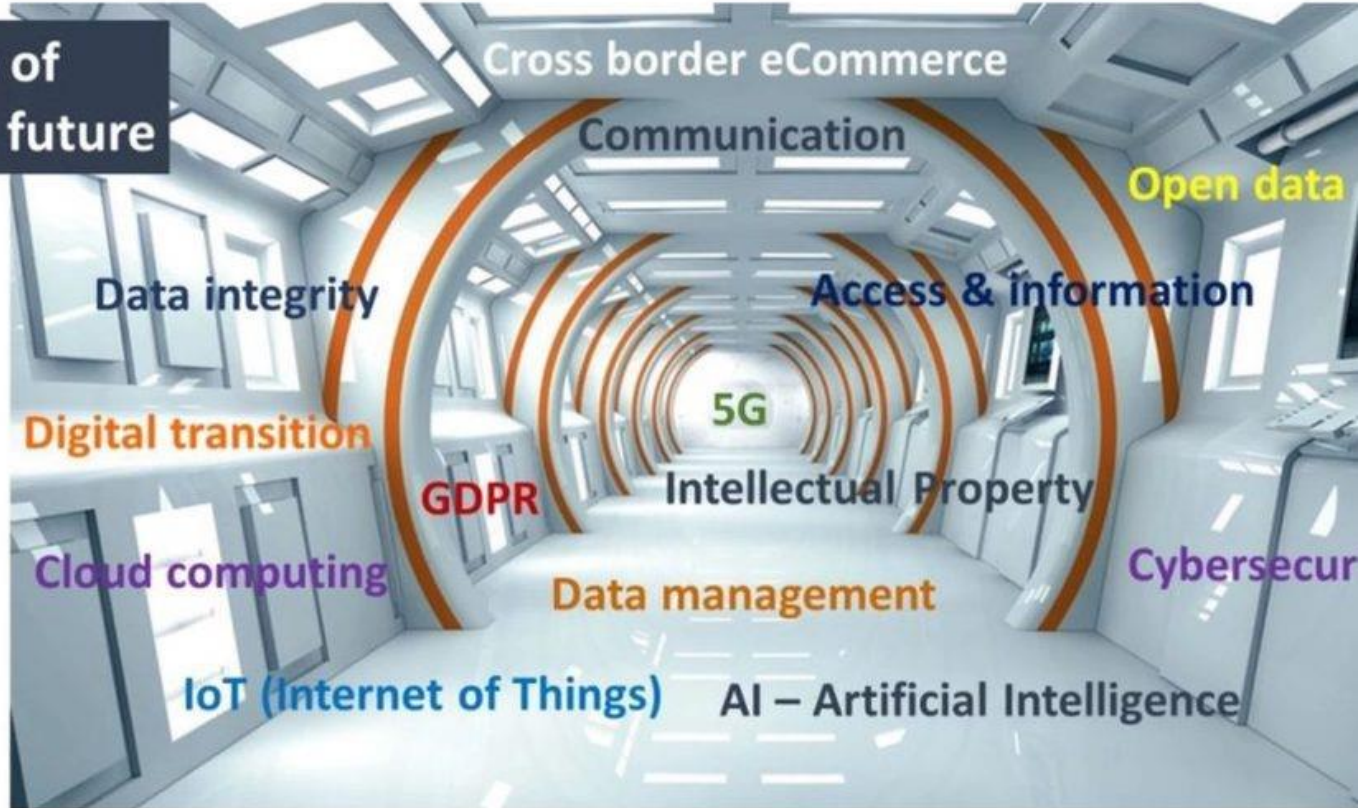
On 27 October 2021, EUROLAB and TIC Council co-hosted the webinar ‘[The Lab of the future and the future of Labs](#)’, dedicated to explore the changes that laboratories are currently facing in the context of the COVID-19 pandemic, as well as the technological developments that are exponentially changing the landscape.



# EUROLAB project – The Lab of the Future

**eurolab**

Lab of  
the future



EUROLAB is currently analysing potential applications for EU funded projects on The Lab of the Future.

Topics of focus are: **The Laboratory of the future 4.0**, with key elements: Digitalisation/ Robotisation, Artificial Intelligence, Cybersecurity, Remote testing, Blockchain, Laboratory Information Management System (LIMS)/ Big Data.

# EUROLAB position paper on AI as a conformity assessment tool

- AI will claim more space and impact in the way it will act in our societies.
- Opportunities offered by AI to provide **reliable conformity assessment** in increasingly complex areas.
- Advise to create a **novel European standardisation body**
- EUROLAB does **not endorse any application of AI as stand-alone** accredited conformity assessment but for the most trivial and very low risk, assessment tasks.

More in [EUROLAB Position paper](#) in response to EC report COM(2020) 65 final: “On Artificial Intelligence - A European approach to excellence and trust”.



# Conclusions

The background features a dark blue field with a grid of light blue dots and lines, resembling a circuit board. Several interlocking gears of various sizes are overlaid on this grid. One gear in the lower-left quadrant is highlighted in a bright yellow color, while the others are in shades of blue and cyan. The overall aesthetic is technical and futuristic.

Digital transformation is a complex process, but it increases the value of laboratories and companies while enhancing work efficiency and enabling better traceability.

The world is moving into the digital era, and laboratories will need to digitalize.

Digitalization does not have to happen all at once. It can happen step-by-step, but with a strategy behind to support it.



**Thank you for your attention!**

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