



THE INDEPENDENT VOICE OF TRUST



TIC Council - EUROLAB Webinar
The lab of the future and the future of labs
27 October 2020





Etty Feller ILAC Chair

Introduction to the Lab of the future, current changes at ILAC level, support given to labs, COVID impact & remote assessments, recognition of labs

- M.Sc. degree in Biochemistry and a Business Administration with a major in management
- Vast experience in the accreditation sector & pharma sector
- CEO of ISRAC since 2011
- ILAC chair since 2018
- Her mission is "To promote Accreditation by qualified and competent organizations in a harmonized way for the benefit of the world"





EUROLAB – TIC Council Joint Webinar

The Lab of the future and future of labs

Etty Feller
ILAC Chair

ILAC's Global Role



Principal international forum for:

- Recognition of competent test and calibration labs, inspection bodies, proficiency testing providers (PTP) and reference material producers (RMP) world-wide through its Mutual Recognition Arrangement (MRA)
- Development and appropriate harmonization of laboratory, inspection body, PTP and RMP accreditation practice
- Promotion of laboratory and inspection accreditation as a trade facilitation tool
- Assisting with the development of laboratory, inspection, PTP and RMP accreditation systems

What is ILAC ?

International Laboratory Accreditation Cooperation



- Established in 1977 to promote communication among laboratory accreditation bodies of the world.
- Formalized as a cooperation in 1996 with 44 bodies signing a Memorandum of Understanding (MOU).
- On 2 November 2000, a mutual recognition arrangement (MRA) was signed, among those members which had successfully completed a peer evaluation.
- ILAC was incorporated in the Netherlands on 20 January 2003.
- MRA was extended in October 2012 to include inspection body accreditation
- MRA was extended in May 2019 to include accreditation of proficiency testing providers
- MRA was extended in April 2020 to include accreditation of reference material producers
- 102 Signatories (Full Members) to the Arrangement, representing 104 economies.
- Almost 79,800 laboratories, over 11,350 inspection bodies, 470 proficiency testing providers and 40 reference material producers have been accredited by the 101 ILAC Full Members

ILAC MRA in summary



ILAC MRA 2019

AROUND THE WORLD



**The ILAC MRA was extended in May 2019 to include accreditation of Proficiency Testing Providers to ISO/IEC 17043 and Reference Material Producers to ISO 17034 in April 2020

5 regional cooperation bodies recognised under the ILAC MRA

102 signatories to the ILAC MRA from 104 economies.

ILAC MRA How it works



The MRA of the recognized **regions** underpin the ILAC Arrangement (MRA).

Currently, the MLA/MRAs of 5 of the 6 Regional Cooperation Bodies: **IAAC, AFRAC, APAC, ARAC, and EA** are recognised by ILAC

Recognition of a region is achieved after successful peer **evaluation by ILAC every 4 years.**

Signatories to IAAC, AFRAC, APAC, ARAC and EA, who are also members of ILAC, **are entitled to become signatories (Full Members) to the ILAC MRA**

Over 91 600 labs, inspection bodies, PT providers and RM producers accredited by the 102 signatories to the ILAC MRA!

ILAC MRA Annual Report 2019



[ILAC MRA Annual Report 2019](#)

ILAC Transition period for ISO/IEC 17025 extended



- The transition period for ISO/IEC 17025:2017 adopted as part of the ILAC Resolution GA 20.15 (November 2016) has been extended from 30 November 2020 to **1 June 2021**. This extension has been granted to ensure all accreditation bodies and the accredited laboratories are able to achieve the remaining transitions in a robust manner under the restrictions imposed as a result of the global coronavirus disease 2019 (COVID-19) outbreak.
- At the end of the transition period, the accreditation of a laboratory to ISO/IEC 17025:2005 will not be recognised under the ILAC Arrangement.
- The ISO/ILAC ISO/IEC 17025:2017 Transition Communique available from <https://ilac.org/about-ilac/partnerships/international-partners/iso/> has been updated to reflect this extension to the transition period.

ILAC-MRA Mark



ILAC-MRA Mark (cont'd)



- 83 ILAC MRA signatories have signed the **ILAC R7-F1 Agreement** *for the use of the ILAC MRA Mark*.
- These ILAC MRA signatories are entitled to use the “Combined ILAC MRA Mark” (i.e. the ILAC MRA Mark used in combination with the accreditation body’s logo) for accreditation activities covered by the scope of their ILAC MRA signatory status.
- These ILAC MRA signatories are also able to permit their accredited conformity assessment bodies (CABs) to use the “**Accredited CAB Combined ILAC MRA Mark**” (i.e. the ILAC MRA Mark used in combination with the ILAC MRA signatory’s accreditation symbol that the accredited CAB is entitled to use).

ILAC Publications Recent Updates



- The latest version of **ILAC P10:07/2020 *ILAC Policy on Metrological Traceability of Measurement Results*** has been published and is available from <https://ilac.org/publications-and-resources/ilac-policy-series/>
- This document addresses the ILAC policy on metrological traceability of measurement results.
- This latest revision reflects the 2017 version of ISO/IEC 17025 and provides additional clarification of its applicability to other conformity assessment activities where measurement is involved.
- **The implementation date for this most recent version of ILAC P10 is July 2021.**

ILAC Publications Recent Updates



- The latest version of **ILAC P14:09/2020 *ILAC Policy for Measurement Uncertainty in Calibration*** has been published and is available from <https://ilac.org/publications-and-resources/ilac-policy-series/>
- This document sets out the requirements and guidelines for the estimation and statement of uncertainty in calibration. This latest revision reflects the 2017 versions of ISO/IEC 17011 and ISO/IEC 17025.
- The policy continues to be based on the Guide to Uncertainty in Measurement (GUM) and retains the common understanding of the term CMC from the joint declaration issued by the BIPM and ILAC <https://ilac.org/about-ilac/partnerships/international-partners/bipm/>
- **The implementation date for this 09/2020 version of ILAC P14 is March 2021.**

ILAC Publications Recent Updates



ILAC – BIPM: Joint Statement

Accreditation of Calibration and Measurement Services of National Metrology Institutes

- [The Joint ILAC-CIPM Communication 2020](#) and provides guidance on the accreditation process of National Metrology Institutes (NMIs) for their measurement services in order for the NMI to optimise the benefits from being accredited when it is, or is in the process of becoming, a signatory to the CIPM MRA, and to generally facilitate the process for Accreditation Bodies when accrediting the measurement services of NMIs.



Specifying Accreditation for COVID-19 Testing

- ILAC has published a factsheet covering key points for immigration agencies and border force regulators that should be addressed if SARS-CoV-2 (COVID-19) testing is being considered for inclusion in traveler screening protocols. The factsheet is available from <https://ilac.org/publications-and-resources/ilac-promotional-brochures/> under Specifying Accreditation.



Specifying accreditation as part of COVID-19 testing

Many regulators are already using accreditation effectively to support their regulatory and policy objectives in areas of national interest including health

As economies begin to consider lifting travel restrictions imposed as a result of the COVID-19 pandemic immigration agencies and border force regulators may be considering the need for SARS-CoV-2 (COVID-19) testing as part of traveller screening protocols.

Specifying accreditation of the testing laboratory as one of the requirements will help ensure the competence and capability of the testing laboratory and the reliability of the results thereby supporting those making decisions in relation to the development, implementation and outcomes of screening protocols. Accreditation from accreditation bodies that are signatories to the ILAC Mutual Recognition Arrangement will underpin acceptance of test results internationally.

Many regulators are already using accreditation effectively to support their regulatory and policy objectives in areas of national interest including health <https://publicsectorassurance.org/topic-areas/healthcare/> and trade and are therefore familiar with specifying accreditation. For those not previously involved in this process, the following are some key points that should be considered to ensure the testing is carried out in a laboratory that has been assessed and found to be competent to carry out SARS-CoV-2 testing.



1. The laboratory shall be accredited in accordance with the requirements of *ISO 15189 Medical laboratories – Particular requirements for quality and competence*.
2. The testing laboratory's scope of accreditation shall include SARS-CoV-2 testing.
3. The accreditation of a medical laboratory shall be issued by an accreditation body, operating in accordance with *ISO/IEC 17011, General requirements for accreditation bodies accrediting conformity assessment bodies* and signatory to the ILAC Mutual Recognition Arrangement.

Laboratories involved in this testing may be using commercially produced test kits or fully validated in-house test procedures. In some economies, there may be government/regulatory requirements in relation to the testing protocols and/or the need for accreditation.

The contact details for laboratories accredited to ISO 15189 for SARS-CoV-2 testing are available from the on-line directories of the accreditation bodies that are signatories to the ILAC Mutual Recognition Arrangement and accessible from <https://ilac.org/signatory-search/>

CONTACT
The ILAC Secretariat
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NSW 2128 Australia

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Email: ilac@nata.com.au

Website: www.ilac.org
Twitter: @ILAC_official
YouTube: IAFandILAC





ILAC Publications *(published since August 2019)*

- **ILAC G8:09/2019** *Guidelines on Decision Rules and Statements of Conformity*
- **ILAC-R2A:11/2019** *ILAC Rules: Articles of Association*
- **ILAC-R2B:11/2019** *ILAC Rules: Bylaws*
- **IAF/ILAC B7:03/2020** *Accreditation: Supporting the Delivery of Health and Social Care*
- **IAF/ILAC B10:03/2020** *Accreditation: Delivering a safer world*
- **IAF/ILAC B11:03/2020** *Accreditation: Adding value to supply chains*
- **ILAC B13: 03/2020** *Why become an accredited reference material producer*
- **IAF/ILAC A1:03/2020** *IAF/ILAC Multi-Lateral Mutual Recognition Arrangements (Arrangements): Requirements and Procedures for Evaluation of a Regional Group*

ILAC Publications *(published since August 2019)*



- **IAF/ILAC A3:03/2020** *IAF/ILAC Multi-Lateral Mutual Recognition Arrangements (Arrangements): Template report for the peer evaluation of an Accreditation Body based on ISO/IEC 17011:2017*
- **ILAC-P15:05/2020** *Application of ISO/IEC 17020:2012 for the Accreditation of Inspection Bodies*
- **ILAC-G29:06/2020** *Guidelines for harmonization of scopes of ISO/IEC 17025 accreditation of WADA anti-doping laboratories*
-

Many of the ILAC documents and brochures have been translated into a range of different languages.

Biobanking



- ***ILAC Resolution GA 22.19***
The General Assembly resolves that the standard applicable to biobanks for the purposes of accreditation will be ISO 20387 *Biobanking – General requirements for biobanking*, to be used as a standalone standard.³ ILAC MRA signatories have signed the ILAC R7-F1
- July 2020 ILAC was accepted as an A Liaison to ISO TC 276 WG 2 *Biobanks and Bioresources*. Lorraine Turner from UKAS, UK is the ILAC Liaison Representative.
- A short brochure on the benefits of Accreditation to ISO 20387 is in the final stages of development.

Key International partners



International Partnerships (cont'd)



- Joint BIPM/ILAC Statement on the roles of NMIs and NABs.
- Joint Declaration of the BIPM, OIML and ILAC promoting the existing three MRAs.
- Joint BIPM, OIML, ILAC and ISO Declaration on Metrological Traceability.
- Joint ILAC-OIML Assessment Procedure in the field of Legal Metrology.
- Joint ISO-ILAC-IAF Communiqué on the alignment of ISO/IEC 17025 with the pertinent requirements of ISO 9001 updated April 2017
- Joint ISO-ILAC-IAF Communiqué on the alignment of ISO 15189:2012 with the pertinent requirements of ISO 9001 (2008) updated January 2015.
- Joint ISO-ILAC-IAF Communiqué on the alignment of ISO/IEC 17020:2012 with the pertinent requirements of ISO 9001 released September 2013.

International Network on Quality Infrastructure (INetQI)



- As part of INetQI, international organizations have agreed to enhance their cooperation in promoting the understanding, value and acceptance of the quality infrastructure and providing guidance and support for its effective implementation and integration worldwide.
- Quality infrastructure is required for the effective operation of domestic markets, and its international recognition is important to facilitate access to foreign markets. It relies on metrology, standardization, accreditation, conformity assessment, and market surveillance.
- ILAC is one of the original partners in INetQI
- ILAC is providing the Chair for INetQI during the period 2018 - 2020
- The former ILAC Chair, Merih Malmqvist Nilsson, has been appointed by the ILAC Executive to undertake the role of Chair of INetQI on behalf of ILAC.

The future



□ ILAC

□ Regions

□ AB'S

□ CAB'S

- Creative, flexible and develop and adapt new work processes to the “new” reality
- Risk assessment
- Training including regulators and stakeholders to the updated “new” approach / techniques
- Performing activities of national regional and international via remote methods
- Providing a reliable, efficient and relevant response , regulators and stakeholders

Public Sector Assurance Website



- This website was initially a collaborative initiative between ILAC, ISO, IAF, IEC and IIOC.
- In 2020 this collaboration broadened to include all of the global quality infrastructure partners (INetQI) represented by the BIPM, IAF, IEC, ILAC, ISO, ITC, ITU, OIML, UNECE, World Bank Group, WTO and UNIDO to demonstrate how the quality infrastructure supports policy objectives. It also includes trade associations such as IIOC and IQNET.
- This website includes case studies and research on the recognition of the ILAC MRA by governments and regulators
- There are over **325** case studies, **88** research papers and **57** supporting materials available to view.
- We are always seeking the best examples to post on this website of conformity assessment helping the public sector.

Business Benefits Website



- The website was initially developed by the ILAC MCC / IAF CMC in partnership with IIOC and ISO.
- In 2020 this collaboration broadened to include all of the global quality infrastructure partners (INetQI) represented by the BIPM, IAF, IEC, ILAC, ISO, ITC, ITU, OIML, UNECE, World Bank Group, WTO and UNIDO. It also includes trade associations such as IIOC and IQNET.
- This reference website was launched in 2017 and is designed to demonstrate the monetary value of standards, conformity assessment and accreditation for businesses.
- There are over **95** case studies categorised into 6 areas of value. All of the case studies identify a clear financial benefit. The site also includes over **74** research papers.
- We are always seeking the best examples to post on this website of conformity assessment helping the public sector.

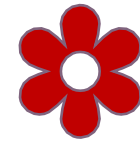
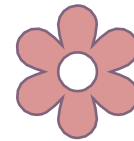
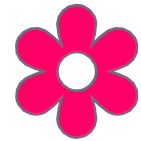
Sources of Further Information



- **ILAC News and Online Newsletters** – published twice a year <https://ilac.org/news-and-events/ilac-newsletter/>
- **Subscribe to the latest ILAC Updates** – https://ilac.org/latest_ilac_news/
- **ILAC Brochures** – a wide range of brochures are available to download from the [publication pages](#) of the ILAC website for regulators and consumers
- **Annual Report** – ILAC publishes an [Annual Report](#) each year that sets out the key developments and status of the MRA
- **Social Media** – Follow [@ILAC Official](#) on Twitter to receive the latest ILAC news, including information on meetings, events, liaison activities and new publications
- **Public Sector Assurance** - <https://publicsectorassurance.org/> includes case studies demonstrating implementation of conformity assessment and accreditation in supporting regulators and their role
- **Business Benefits** - <https://business-benefits.org/> source of case studies demonstrating monetary benefits as a result of accredited conformity assessment services



Thank you



Heinz Wilkening
European Commission, DG JRC Joint
Research Centre
Smart Labs – Interoperability testing methodology

- Has worked for the EC since 2003
- Worked in the field of Smart Grids for the last 10 years
- Worked in German research centre and industries in the field of hydrogen safety simulations as well as fuel cell simulation, design and testing

The European Commission's science and knowledge service

Joint Research Centre



Smart Grid Interoperability Lab

Heinz Wilkening and Ioulia Papaioannou

JRC, Petten, 27/10/2020

The JRC within the Commission

| 27 COMMISSION MEMBERS

Ursula von
der Leyen



President

Mariya
Gabriel



Innovation, Research,
Culture, Education
and Youth

Stephen
Quest



Director-General,
Joint Research Centre

Strategy
& Coordination

Knowledge
Production

Knowledge
Management

Support



JRC Mission

As the science and knowledge service of the Commission our mission is to support EU policies with independent evidence throughout the whole policy cycle.

JRC sites

Headquarters in **Brussels**
and research facilities located
in **5 Member States:**

Belgium (Geel)

Germany (Karlsruhe)

Italy (Ispra)

The Netherlands (Petten)

Spain (Seville)



SGI Labs

Power Systems

PETTEN

Advanced Metering
Infrastructure

ISPRA

Microgrids
&
DERs

Communications

Retail Market

E-Mobility

Cybersecurity

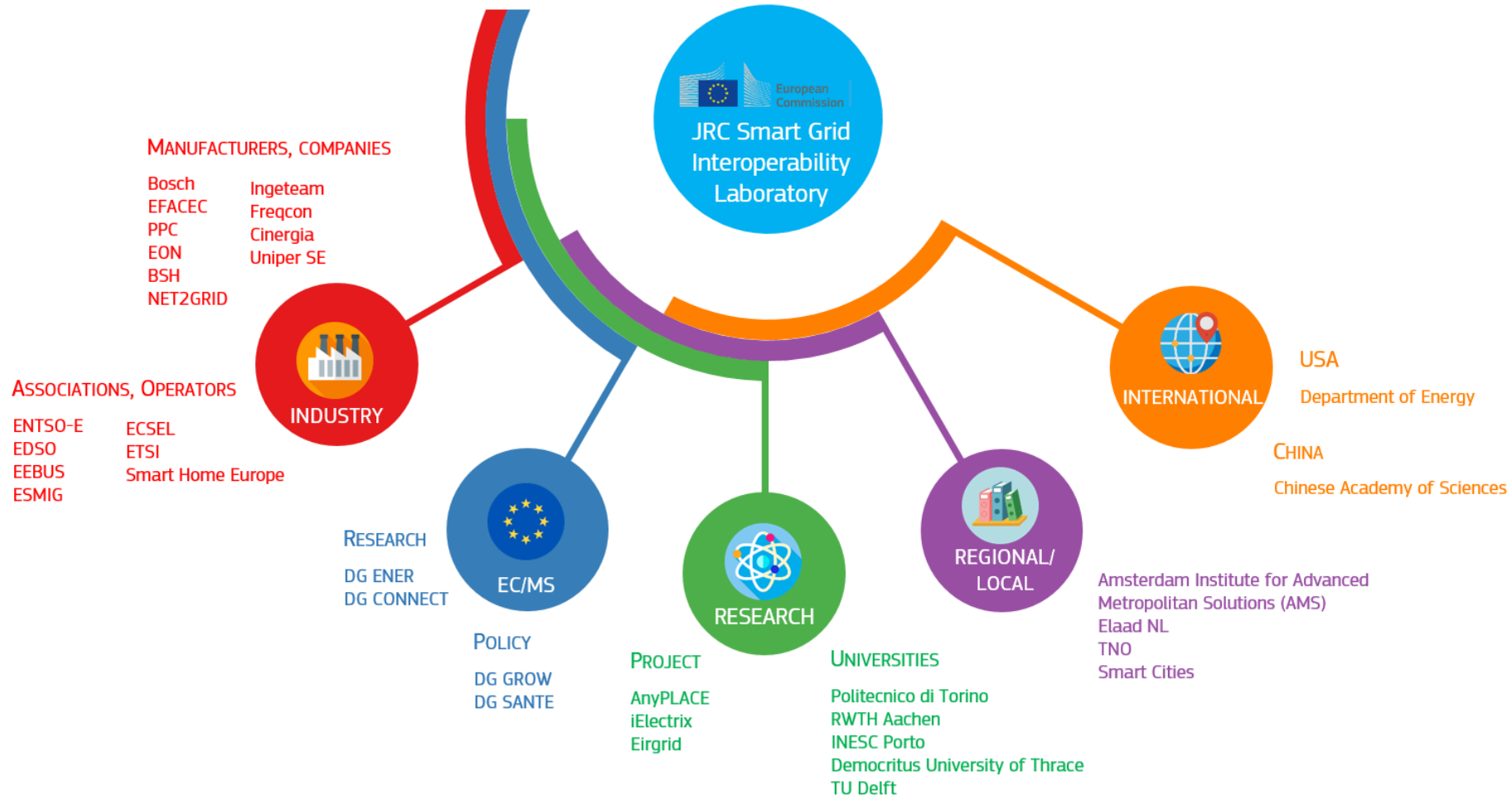
Smart Home

Grid Management

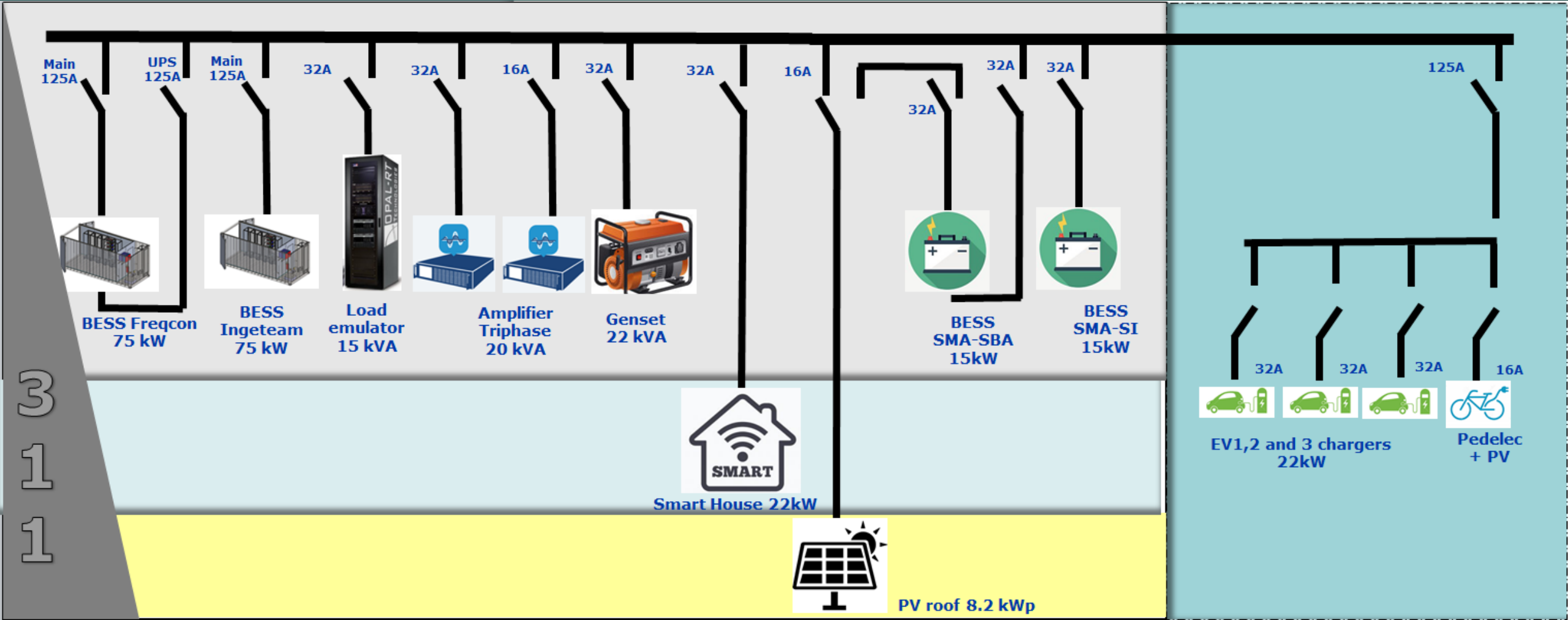
Demand Response

Automation

Who do we work with



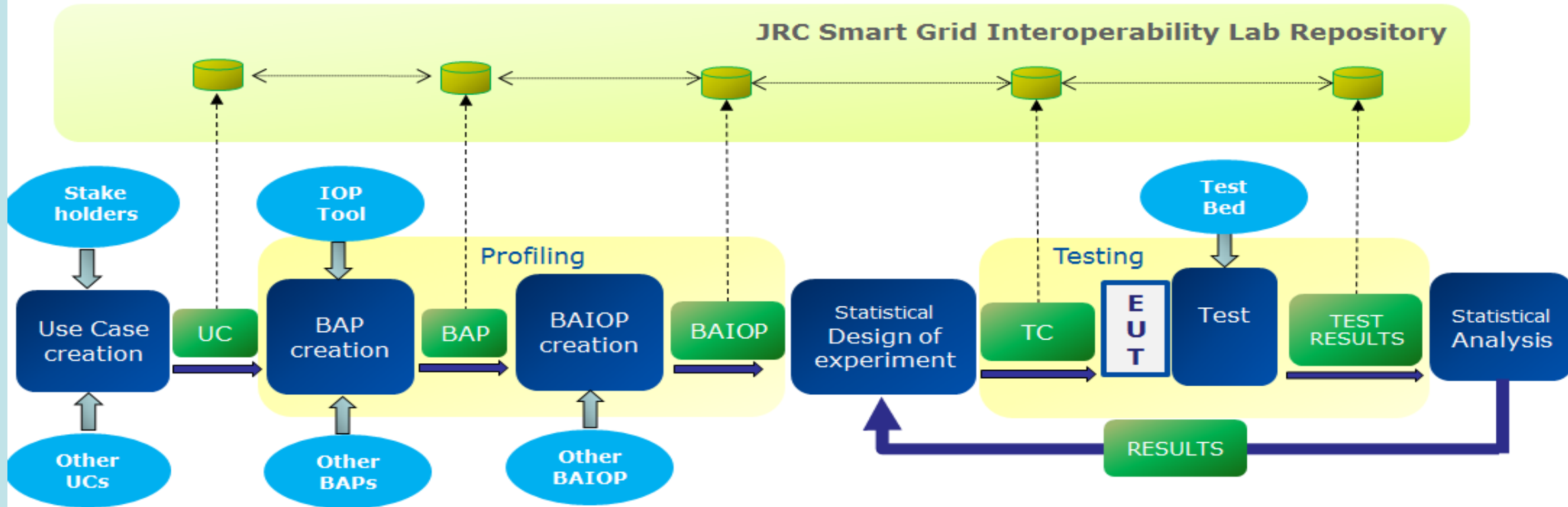
JRC SG Interoperability lab Equipment



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IOP Testing Methodology

JRC Interoperability Testing Methodology



SG – Design of IOP Tests

- System – automated IOP methodology
- Designing of a Database of UCs and Interoperability profiles
- The Database helps user to design IOP test specifications
- Connected with Lab equipment to set the Test



Vision

- Various IOP Test Beds
- Testing methodology/ Automation of test specification design
- Neutral testing environment
- Innovation
 - Pioneering ideas (IOP CBA, blockchains etc)
 - Testing/ Validating Smart Grid Specialization partnership projects
 - Testing/Validating Horizon Europe projects (eg collaboration with Interconnect project)



Thank you

You can find me here: Heinz.Wilkening@ec.europa.eu



Eric Roman President & CEO Pace Analytical Services, LLC

A US perspective on the main issues laboratories are facing in the US and the opportunities the future holds?

- Master of Business Administration from Harvard Business School and a Bachelor of Science in Mechanical Engineering from The Ohio State University
- Appointed CEO in October 2019
- Led and grew a diversity of businesses spanning products and services from heavy industry to medical devices to biotechnology



ENVIRONMENT. LIFE. SERVICE.

The Lab of the future and the future of Labs

Eric Roman
President & CEO

October 2020

INTRODUCTION

At Pace, we apply deep knowledge and expertise, working together to protect our environment and improve our health.



3100+

EMPLOYEES



95+

LOCATIONS

DIVISIONAL OVERVIEW

ENVIRONMENT

Full-service environmental network

LIFE SCIENCES

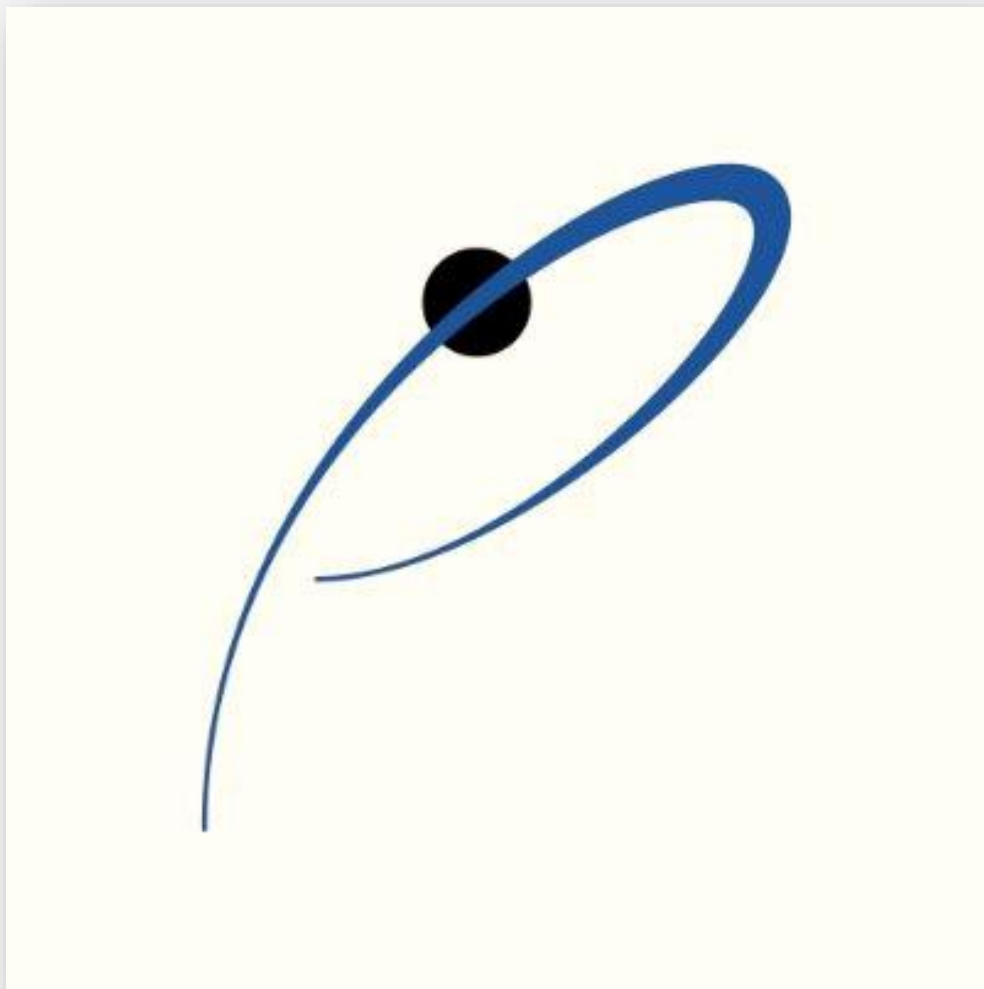
Early-stage research and development, to clinical trial materials production, GMP manufacturing support and analytical testing

SERVICE

Unique scientific professional support in the areas of staffing, product regulatory services, instrument support and validation

Servicing the Needs of Over 32,000 Customers

ONE COMPANY'S PERSPECTIVE



- COVID impact
- The future
- Challenges & Opportunities
- The digital transformation

PACE ANALYTICAL®

COVID-19 & THE FUTURE



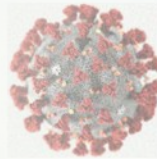
COVID-19 & THE FUTURE

WHAT IS THE NEW NORM?

WHAT WILL SUSTAIN TIME?

WHAT WILL EVOLVE / REVERT?

- What is “essential”
- Safety: Where is the line drawn?
(social distancing, lab reconfiguration, shift work, PPE, hazard pay, home office, etc.)
- Remote work / access to talent / talent access to work (impact on turnover)
- Workforce flexibility
(school age children, aging parents, rethinking ways to accomplish goals, etc.)



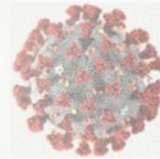
COVID-19 & THE FUTURE

WHAT IS THE NEW NORM?

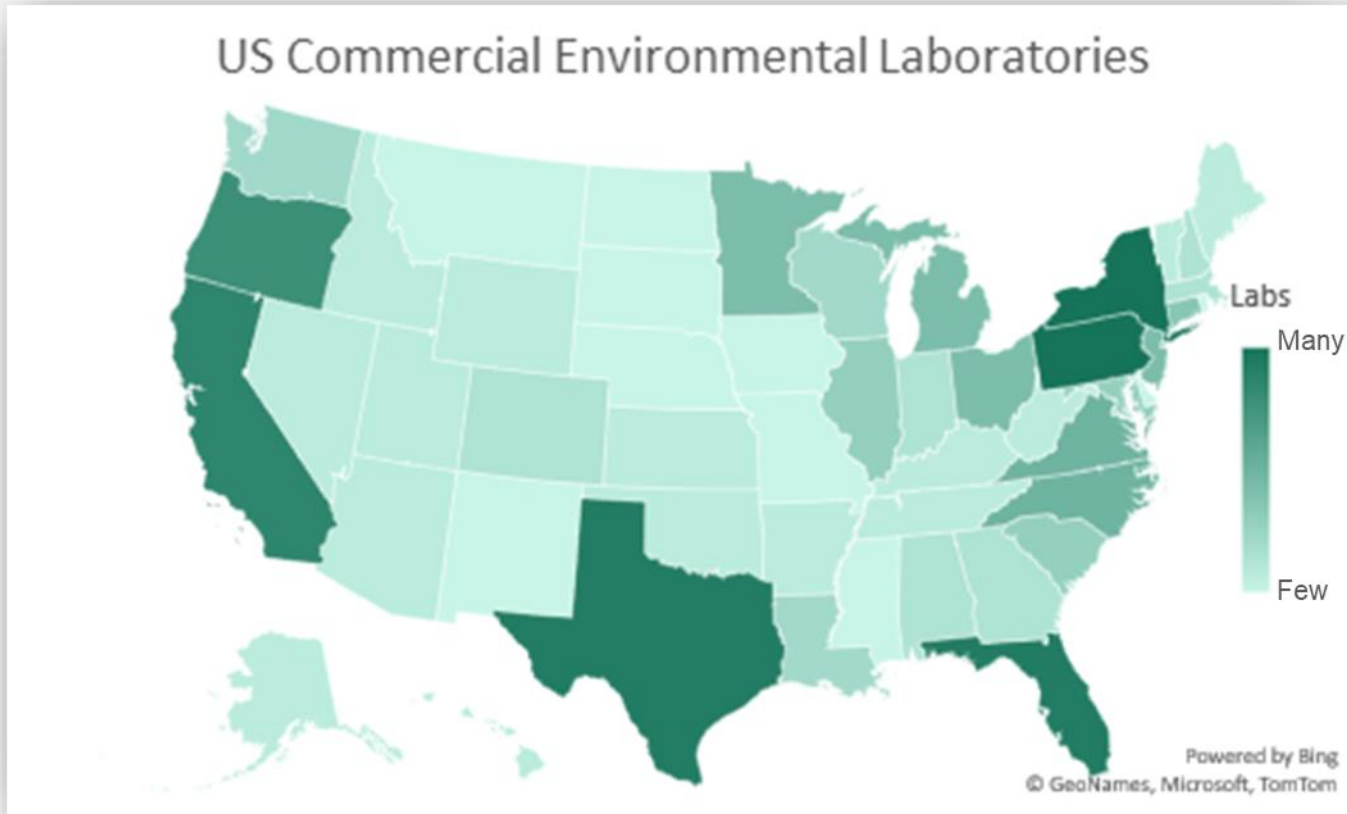
WHAT WILL SUSTAIN TIME?

WHAT WILL EVOLVE / REVERT?

- Intimacy / team dynamics
(family, friends, work colleagues, customers, suppliers, industries, etc.)
- Reprioritization of what is important
- Customer parallel evolution
(partnering to save time and create closer linkage; lack of industry standard reporting creates barriers to quick solutions; fragmented industry both opportunity and challenge)
- Fatigue or motivation
(stay close to employees and how to help)



US ENVIRONMENTAL INDUSTRY IS HIGHLY FRAGMENTED



>500 individual companies operating ~1,000 commercial laboratories

Customer loyalty at local levels

Variation in requirements

Few large lab networks, most subscale with minimal ability to invest in innovation

Seasonal business with low margin profile



Thank You!



Álvaro Silva Ribeiro EUROLAB President

The COVID impact on the EU Laboratories. An EU perspective on the Lab of the future

- Researcher Officer at LNEC (Civil Engineering Institute in Lisbon), as Head of the Metrology Division and Quality Manager
- Founder of the Portuguese Society for Metrology, member of the Portuguese Society of Physics and of the EURAMET Research Council
- He is currently President of the Board of EUROLAB aisbl and RELACRE (EUROLAB Portugal), and Vice-President of UILI

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

27 October 2020

Álvaro S. Ribeiro
President of the BoA of EUROLAB aisbl

euro lab

EUROLAB was created in Brussels on April 27, 1990 on the basis of a memorandum of understanding, signed by delegations representing the private and public laboratories of 17 out of the 19 countries of the EEC and EFTA.

EUROLAB is since October 1998 a legal entity in the form of an international association under Belgian law (A.I.S.B.L. - Association Internationale Scientifique sans But Lucratif) setting it as the European Federation of National Associations of Measurement, Testing and Analytical Laboratories.

Main topics of interest



Corporate Social Responsibility



Accreditation and Standardization



Measurement and Calibration



Testing



The laboratory of the future



EU Policy

Active Members

- | | | |
|---------------------------|------------------------------|--------------------------------|
| Austria
AUSTROLAB | Belgium
BELAB | Bulgaria
BULLAB |
| Croatia
CROLAB | Czech Republic
EUROLAB-CZ | Denmark
EUROLAB Danmark |
| Finland
Finntesting | France
EUROLAB France | Germany
EUROLAB Deutschland |
| Greece
Hellaslab | Iceland
ICELAB | Italy
ALPI |
| Netherlands
FENELAB | Poland
POLLAB | Portugal
RELACRE |
| Romania
ROLAB | Spain
FELAB | Sweden
EUROLAB Sverige |
| Switzerland
EUROLAB CH | | |

Associated Members

- | | | |
|-------------------|--------------------|-------------------|
| Lebanon
LEBLAB | Macedonia
PYROM | Turkey
TURKLAB |
|-------------------|--------------------|-------------------|

International Affiliates

- | | | |
|---------|--------|--------------------|
| ASCOLAB | NLA-SA | NCSL International |
|---------|--------|--------------------|

26

National Associations

3000

Conformity Assessment Bodies

150k

Professional Experts

9000

Accredited Laboratories



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TIC Sector outlook – growing needs

Strong fundamental growth drivers

(in “Oaklins, spot on testing, inspection & certification”)

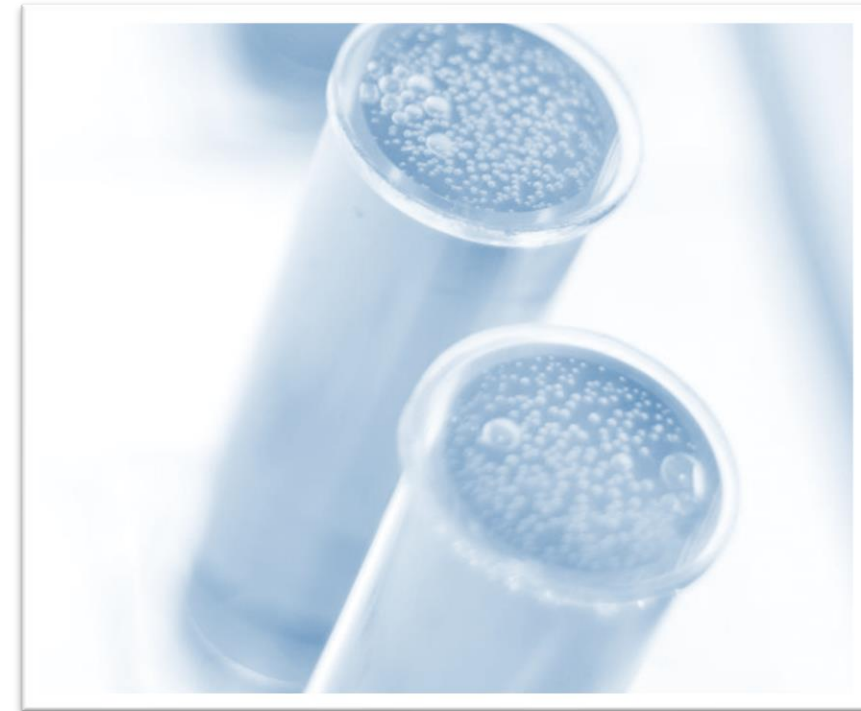
1. **Regulations and standards** shift towards stricter and more complex regulations and standards (often government-driven) to ensure health and safety compliance across a variety of industries, such as food, textiles, toys and electrical goods.
2. **Outsourcing** Large corporates and state-owned organizations are increasingly outsourcing TIC activities to external experts to reduce in-house costs and to pass on the responsibility for complex compliance issues to third parties.
3. **Globalization** leading to increasing trade. Imports from developing countries are required to pass stringent tests to comply with international standards.
4. **Product variety and short life cycles** These trends result in more frequent testing and certification applications as well as a higher services volume.
5. **Safety and quality control** The prevalence of social media and the risk of reputation loss escalate the need for quality requirements
6. **Growing income** rising disposable incomes, the use of consumer goods is expected to increase demand for the testing of these goods.



The challenges ahead



- ❑ Emerging technologies & new materials
- ❑ Communication & Data Science
- ❑ Digital transformation
- ❑ Remote activities & work relations
- ❑ Global market vs. local markets
- ❑ Social relations & expectations



Strategies



Accelerate automation and digital transformation



Invest in the right data to assess business impact



Anticipate key events with market and customer insights

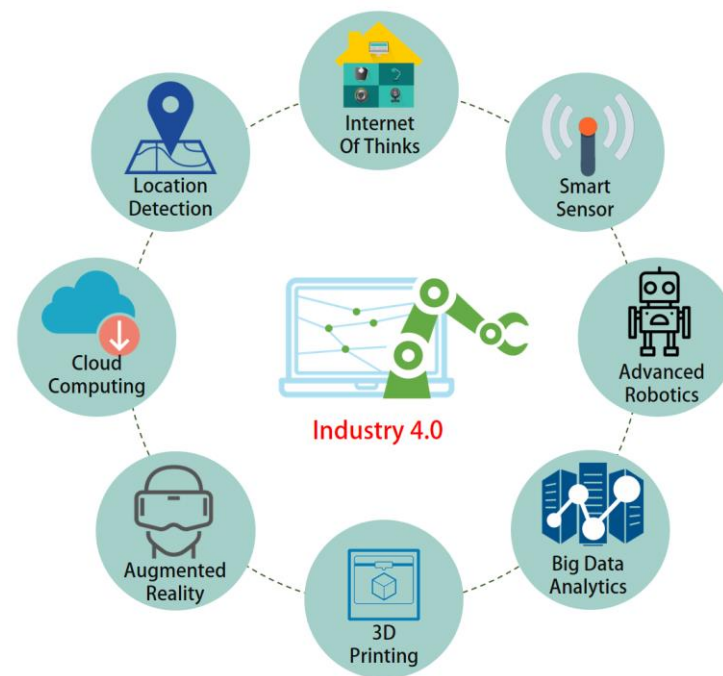
The challenges ahead – European Policy

Green Deal & Climate revolution



Industry 4.0 & Employment

INDUSTRY 4.0 FRAMEWORK - THE DIGITAL TECHNOLOGIES



Digital single market & local business



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Does everything changes?

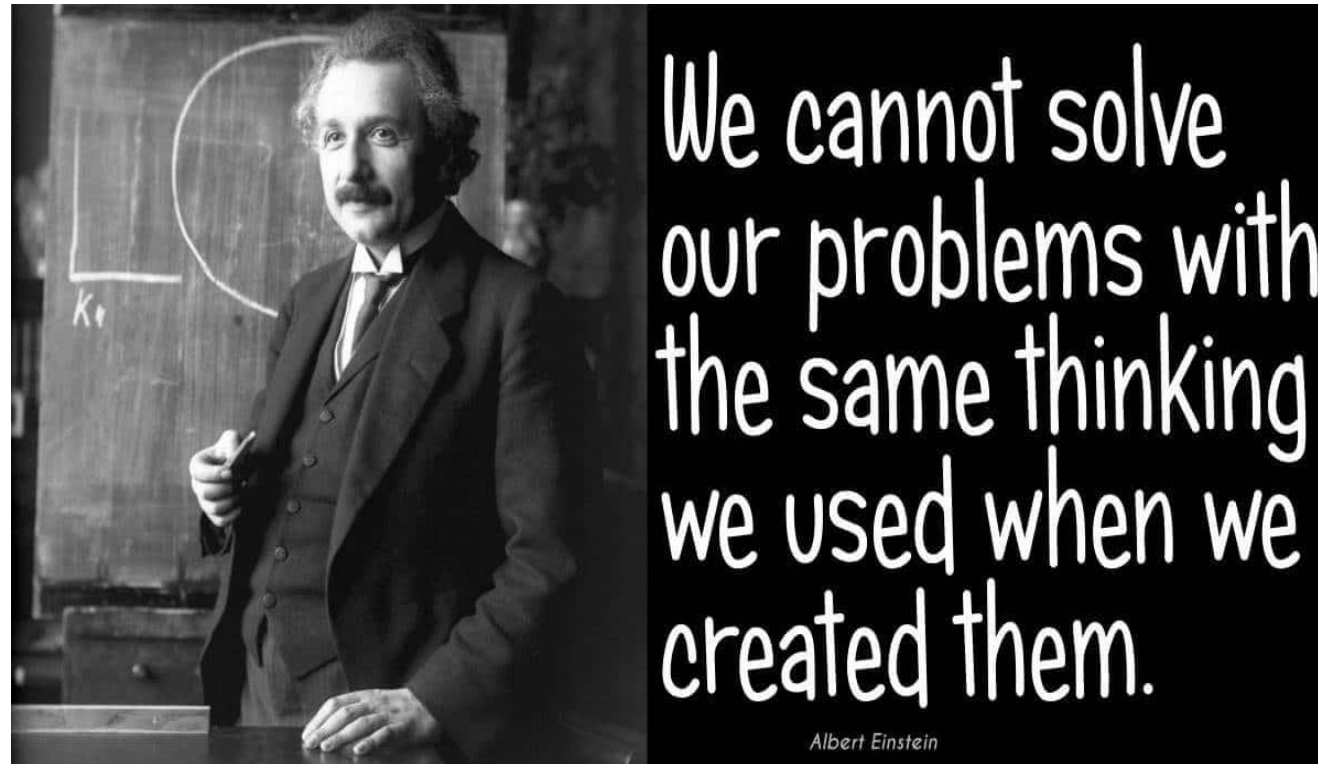
- ❑ Laboratories will continue to carry out traditional testing (as many products, including high-value products such as wooden toys, will continue to be manufactured using traditional processes).
- ❑ Laboratories will have to adapt to new products and new manufacturing processes.
- ❑ Some of these new processes require the development of the ability to measure new characteristics (as in nanotechnology).
- ❑ Laboratories will also need to be able to test new performances (such as algorithms).
- ❑ Laboratories will need to be able to test new failure modes (such as those of objects from additive manufacturing or the "capacity" of connected objects to be hacking relays).



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the future and future of labs

27 October 2020



Thank you for your kind attention!

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Betina M. Jahn

Head of Innovative Product Management, SGS Germany

Remote Auditing - practical learnings & a glimpse of the future

- Betina is an agricultural engineer and farmer by education.
- Joined SGS in 2002, being responsible for the implementation of audit & certification systems within Agriculture and Food. Head of Innovative Product Management since 2009
- She is involved in several national and international developments focused on sustainable biomass and biofuels as well as feed and food related SGS Testing Marks.

SGS Agriculture, Food

Remote Auditing- practical learnings & a glimpse of the future

Joint EUROLAB - TIC Council Webinar
The lab of the future and future of labs

Betina Monika Jahn – Head of Innovative Product Management,
SGS Germany GmbH

Content



- 01 REMOTE audits & the **evolution of audit methods**
- 02 What is the **framework for remote audits**.
Binding Guidance, Norms & Standards
and other prerequisites
- 03 What limits technical solutions to audit
remote- **beyond regulation**
- 04 Examples of **practical experience- and-
practical solutions**
- 05 What have we finally learned and **impact on
the future?**



01 Before we start: REMOTE Audit- What is it?

- Remote audits or "remotely controlled audits" are audits from a distance
- The physical presence of an auditor is replaced by technical aids so called ICT's (Information and Communication Technologies)
- ICT's are for example: MS Teams, Skype and SGS QiiQ
- REMOTE audits can be **Fully Remote** or **Partly Remote**
- REMOTE audits are used as an **auditing method**
- The implementation of REMOTE auditing methods was boosted by the COVID-19 pandemic

01 The evolution of audit methods

On-site audits

Physical presence of an auditor on site to check criteria. Observation, Interviews, document checks etc.



Desktop checks & on-site auditing

Defined audit criteria (mainly document checks or check of CAR closure evidence) are checked before or after the on-site audit



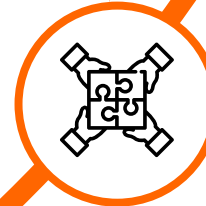
Telephone & Video Chat auditing

May be combined with desktop techniques (emailing of document scans etc.)



Virtual Inspection/ Virtual "On-Site Visits"

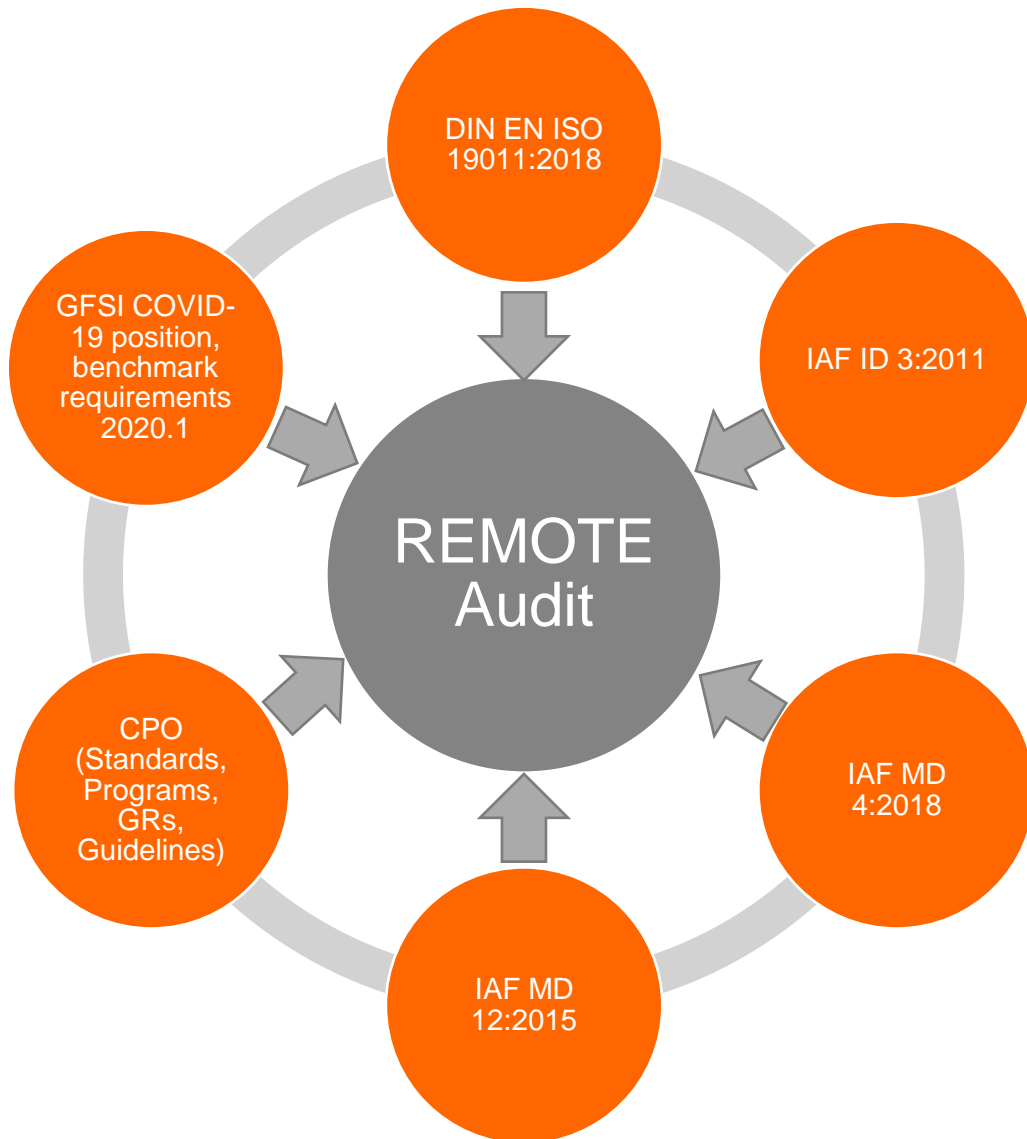
Auditor or expert inspects production sites, machines, processes via APP & technical device (camera)-live or recorded



Advanced REMOTE Audit

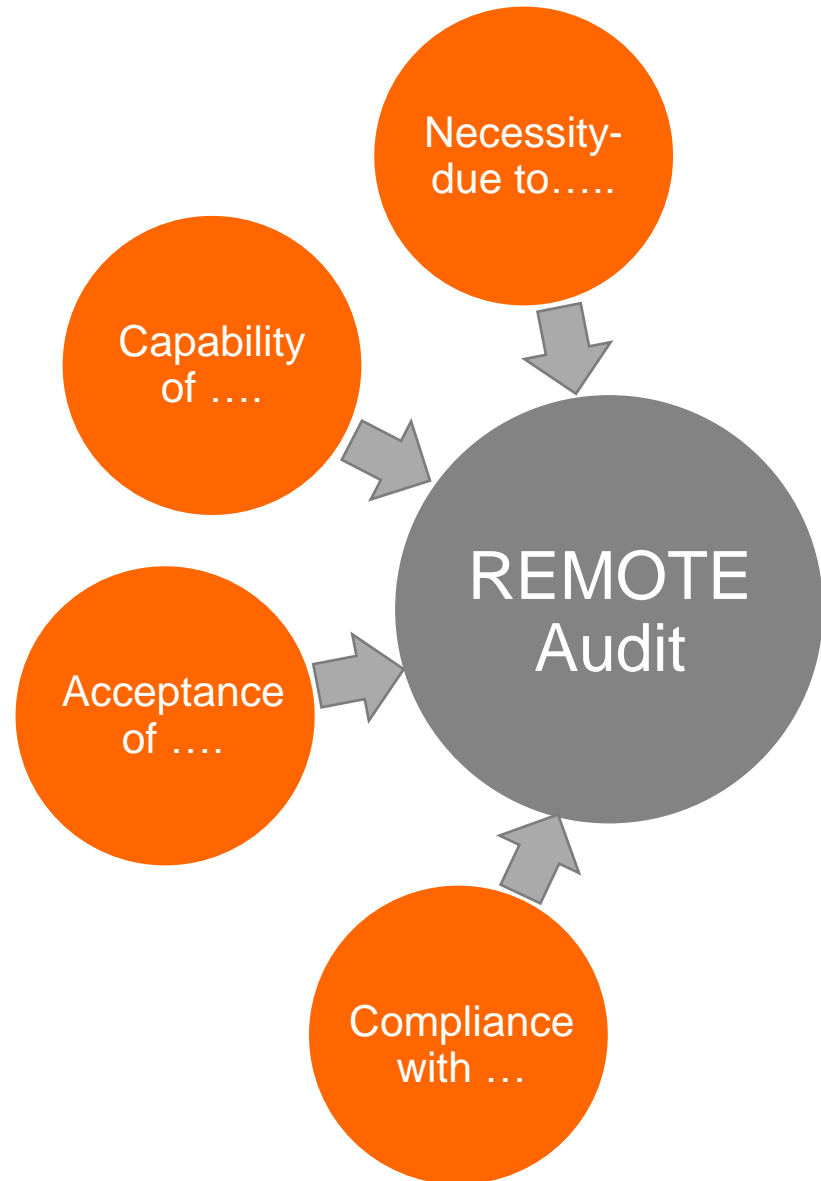
Mix of ICTs: Desktop document check (email), Document assessment and live data check e.g. ERP data via screen share (e.g. TEAMS), virtual inspection & on-site tour (e.g. QiiQ)

02 Framework for REMOTE Audits



- DIN EN ISO 19011:2018 refers to REMOTE auditing as an audit method and sets rules for Best Practice
- IAF ID 3:2011- Informative Document for Management of Extraordinary Events or Circumstances Affecting ABs, CABs & Certified Organizations
- IAF MD 4:2018- Mandatory Document for the Use of Information & Communication Technology (ICT)
- IAF ID 12:2015 Principles on Remote Assessment
- CPOs have implemented diverse strategies depending on their accreditation and GFSI benchmark status
- GFSI- confirmed that Certification Program Owners (CPOs) can add & begin using remote auditing (letter from GFSI Leadership 11th of June 2020)

02 Prerequisites for REMOTE Audits



- **Necessity** due to travel restrictions, access restrictions, unsafe situations, safety measures- or simply time constraints?
- **Capability** of auditors and auditees to install and use ICTs for REMOTE auditing
- **Acceptance** of new techniques and physical absence of auditors & experts
- **Compliance** with:
 - Company policy of auditee
 - CB policy
 - CPO policy
 - GFSI &/ or accreditation rules (if applicable)
 - ... any other regulation for data safety, personal data safety etc.

02 Preparation & conduction of REMOTE audits

according Best Practice & Mandatory Documents



1 – Compliance & Risk Assessment

RA conduction, formal release for remote. Implementation of measures and techniques to guarantee (data) safety, integrity and robustness of audit. Decision on fully remote- partly remote

2 – Planning & Preparation

Detailed planning of audit, set-up and release of audit plan including timeline, assessed topics, resources incl. personnel needed, used ICTs. Planning of virtual tour: site map, process mapping. Assessment of selected documents

3 – Test of ICTs

Live test of ICTs together with auditee. Test of back-ups. Detailed discussion of communication rules and “emergency measures”

4 – Audit

Opening- and closing meeting, site verification, identification of involved personnel, audit protocol (proof for audit conduction). virtual inspection, interviews, document check, data check.....

5 – Audit Finalization & Dokumentation (Post Assessment)

Audit report and audit Checklist. Certification decision if foreseen. Data upload where applicable

03 What limits technical solutions to audit remote- beyond regulation

- **Time-** more and detailed planning and preparation of audits necessary
- **Time-** audit time must be used as planned. Strict focus not to lose track is key to manage potential data deluge
- **Acceptance-** clients are still skeptical. Data security has to be discussed
- **Capability-** auditors and auditee must be trained and skilled to handle remote techniques
- **Technical set-ups-** robust internet connections, sufficient bandwidth, software programs
- **Technical equipment-** digital documents, scanner, camera, mobile devices, head-sets
- **Background noises-** virtual inspection of running processes

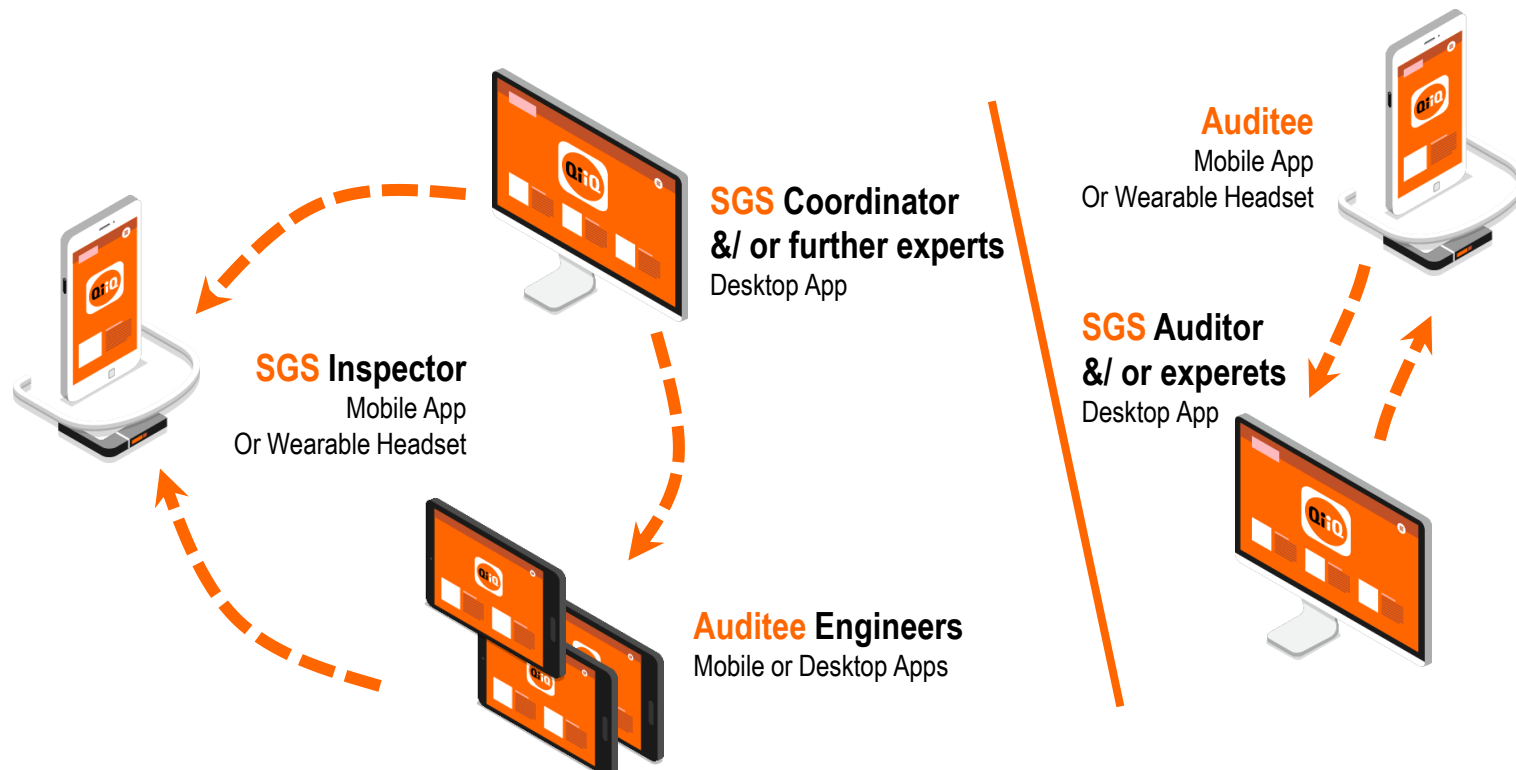
- A “**steady hand**”- virtual on-site inspections may lead to MOTION SICKNESS.

04 Examples of practical experience

REMOTE Audit set-up



SGS App for mobile devices: "QiiQ" is used for virtual live inspections at production sites



&

MS Teams (Skype, Zoom,...) is used for live document sharing, live text-, voice- & video-chatting

04 Examples of practical experience- practical solutions

- Partial & Full REMOTE Audits in the food/ beverage industry, seed & feed sector, agriculture:

- Difficult for accredited and GFSI benchmarked schemes- highly regulated
- SGS IF Quality Seal > good acceptance for remote techniques. Virtual on-site inspections of high quality possible. Food safety criteria & sustainability criteria assessed
- 2nd party supplier audit programs for high risk areas (e.g. China) via QiiQ and TEAMS. Successful audits- but auditees must be on-boarded carefully (additional preparation time)
- 3rd party non-accredited audits for seed treatment plants. Endorsed audit time due to difficult virtual on-site inspection (background noises). Noise cancelling headphones recommended
- 2nd party audits (climate checks) on dairy farms. ICTs are not always at hand. Where it is given, very good acceptance and performance
- 3rd party accredited feed schemes: good acceptance. Difficulties to access ERP via desktop share. In some cases paper or print out documents have to be scanned and shared.
- Verification of audit sites- using geocoordinates (QiiQ)



05 What have we finally learned....

- REMOTE audit methods are **adequate and robust** to conduct 2nd and 3rd party audits along the food and feed supply chain, either fully or partly remote
- REMOTE audit methods **minimize risks in high risk areas**- for auditor and auditee
- Remote methods allow easily to **add experts to an audit team** (climate experts, social auditors etc., translators)
- REMOTE audits **save travel time & travel costs** but need far **more planning & preparation time**
- **Auditors must be focused, trained** in communication techniques (beyond software use) and stress resistant (system break downs, data deluge, escalating audit situations etc.)
- Auditor AND auditee must be **well prepared**. **Time discipline** on the audit plan is key
- REMOTE audits need **more audit time** due to “technical breaches” (e.g. assessment of paper documents, organization and conduction of interviews, ICT switch etc.)
- **Minimum technical equipment** needed such as mobile devices with camera, headphones, laptops as well as backup devices
- **Stable internet connection** with **sufficient bandwidth** is necessary



05 Impact on the future?

- Implementation of solid and safe remote methods in daily audit & certification business
- Advanced training of experts, inspectors and auditors
- Investment in platforms and/ or APPS to share data and document remote audits
- Use google glasses for auditing, training and witnessing
- Test and implement HoloLens for training of auditors and clients
- Develop products that use ERP & IOT data to verify criteria (classical audit criteria and beyond)
- Work on products that use BD for risk minimization and compliance support
- Independent Risk Assessments will become of high importance and linked to remote methods
- “audit-certificate” services will be supplemented and/or replaced by verification services e.g. data verification, self-assessment verification. This will supported by remote methods



Do you have any questions?

Please contact us

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Q&A Session

Thank you for your attention!

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