



The World Organisation for NDT

THE FUTURE OF CERTIFICATION: QUALITY, SKILLS AND SAFETY

- ❖ Critical issues regarding ISO 9712 certification
- ❖ Catastrophic failures

Presented by: Bento Alves, Chair of ICNDT WG1

ICNDT WG 1 Qualification and Certification

[Members](#)

Working Group 1 is the meeting place for experts from ICNDT members in this field.

The Working Group produces recommendations for best practice which supplement and input to the standards.

It is responsible for the ICNDT Guides, other published documents and regular workshops on certification (usually held at WCNDT or Regional Conferences).

OTHER WG 1 GUIDANCE DOCUMENTS



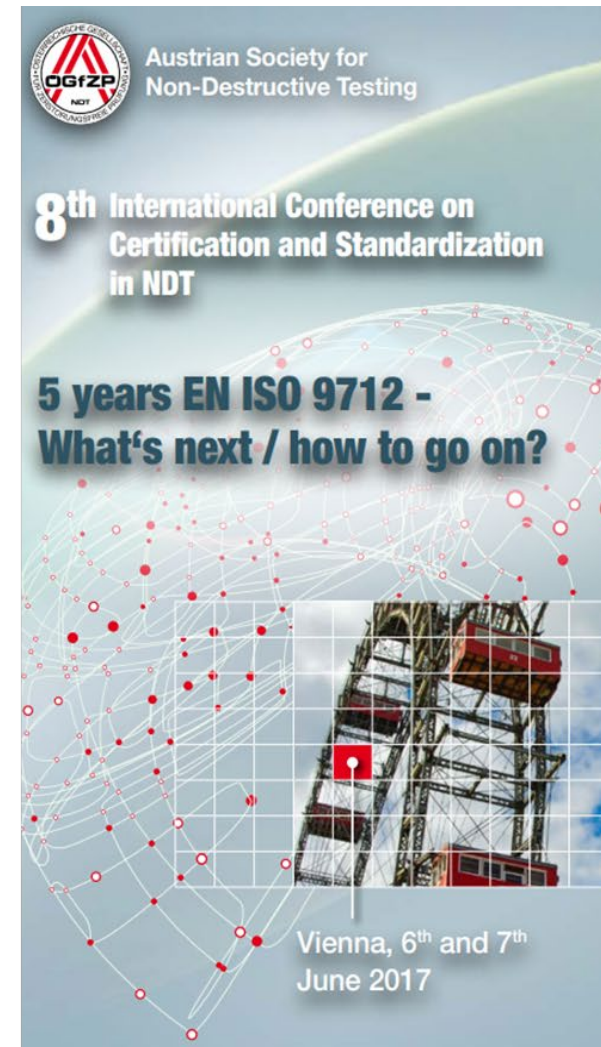
ICNDT WG 1 on interpretation of ISO 9712:2012(Report) ▶

ICNDT WG 1 Terms of reference ▶

ICNDT WG 1 Action Plan ▶

Previous International Conferences:

- 6th International Conference on Certification and Standardization NDT, Valencia, 2011
- 7th NDT International Conference on Certification and Standardization; Zagreb, Croatia, 2013



Workshops

31 May 2024, WCNDT, Incheon, Korea

ICNDT

-  [Global Harmonisation and the 'Golden Standard'](#)
-  [ICNDT – ICEC History and Benefits of the ICNDT Multilateral Recognition Agreement](#)
-  [Education and Certification Gaps between Level 3 and Advanced NDT Technology](#)
-  [ICNDT – WCNDT Joint Workshop on Certification of Personnel 2024 – Report](#)

Most importante issue regarding ISO 9712 Certification

The most critical issue regarding ISO 9712 certification is the confusion regarding responsibilities:

- While ISO 9712 is a third-party assessment of an individual's general Non-Destructive Testing (NDT) capabilities, it does not authorize an individual to perform specific NDT tasks.
- Only the employer can grant that job-specific authorization, ensuring the technician also possess the job-specific knowledge of the company's equipment, procedures and material acceptance criteria.

NDT Technicians Shortage

- According to data released by the European Welding Federation (EWF), the estimated deficit is approximately 300,000 unfilled welding positions across Europe.
- The shortage of Non-Destructive Testing (NDT) technicians in Europe is equally severe and functions as a critical bottleneck.
- Industry reports indicate a pan-European supply deficit of approximately 15% for qualified inspection personnel, which frequently forces industrial project delays because completed welds cannot be legally signed off without NDT verification.

Why the NDT Shortage is Unique

- The "Silver Tsunami": An estimated 30% to 40% of Europe's senior NDT specialists (Level 3) are within 5 to 10 years of retirement. This creates a massive drain on the specialized heuristic knowledge required to inspect safety-critical components (Aerospace and Energy & Infrastructure)
- Strict Certification Barriers: Unlike standard manufacturing jobs, transitioning into NDT is slow. Attaining ISO 9712 certification requires rigorous training, strict examinations, and hundreds of mandatory logged experience hours that cannot be rushed.
- Low Career Visibility: NDT has historically operated as a "hidden gem". The British Institute of Non-Destructive Testing (BINDT) and other bodies note that almost no one discovers this profession through standard career paths or general awareness, leaving the entry-level talent pipeline drastically underserved.



■ Two Certification workshops/meetings during ECNDT2026?

- What is the goal of two certification moments during ECNDT 2026?

To change ideas about what is the correct way in NDT personnel certification

- Who is the target audience?

everyone interested in NDT personnel certification

- **Accreditation Bodies,**
- **Training Providers,**
- **Employers**
- **End Users**



- ISO 9712 requires that the certification system should be controlled and administered by a certification body that conforms to the requirements of **EN ISO/IEC 17024:2026** (Conformity assessment – General requirements for bodies operating certification of persons).
- This standard is designed to ensure that a certification body is adequately qualified for its role and is independent of any single interest.
- In many countries of the world, certification bodies demonstrated their compliance with this requirement by obtaining accreditation by independent agencies – many of which are government sponsored – generally known as accreditation bodies.

There are associations of accreditation bodies at international and European levels, the International Accreditation Forum (IAF) and ILAC



Global Accreditation Cooperation Incorporated (ACI) has assumed the former roles of the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC).



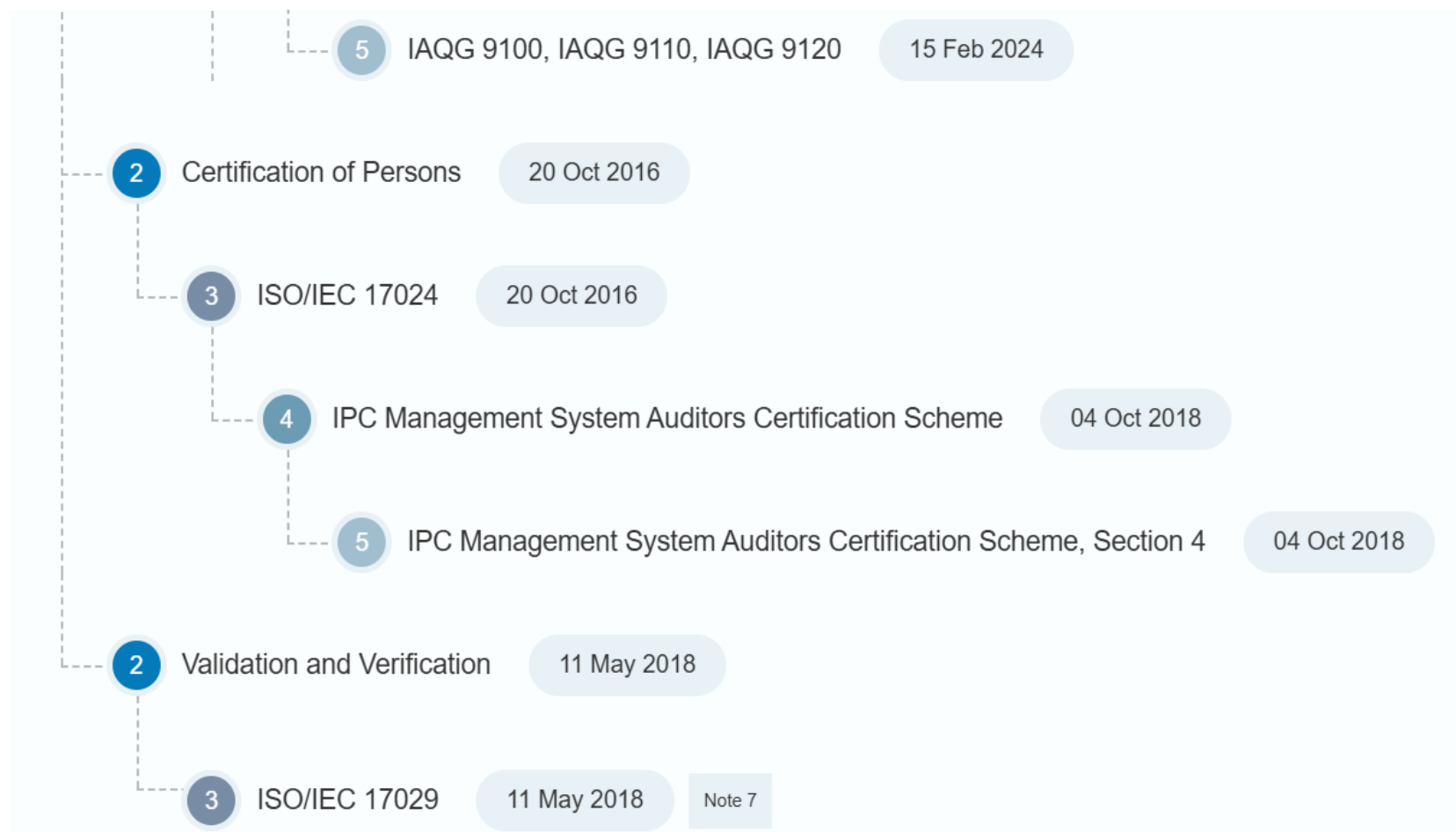
and the European co-operation for Accreditation.



Some accreditation bodies operate outside their national boundaries.



BUT each country Accreditation Organization must be recognized acc. to each reference Standard (17024 for certification of personnel)



A certification body can operate in a different country?

Yes

Is it possible that a company plays the role of certification body in a different country, giving training (using another company of the group) and examination?

Yes

In this case, the company can change

- the number of hours/days of training,
- the requirement that exam specimens cannot be used in training
- the requirement that the trainer cannot be the examiner
- the ISO 9712 requirements about the qualifications of the trainer/examiner?

No!



For all levels, theoretical training may be delivered in

- **a face-to-face instructor-led format,**
- **distance learning format,**
- **a self-paced format,**
- **or a combination of these formats.**

Practical training shall be delivered by a face-to-face instructor-led format only.

50% or 60% online is acceptable?

I heard reports of 40-hour courses with 24 hours online and 30 students.

50% self training is acceptable?

- 1. Motivation and Procrastination**
- 2. Isolation and Lack of Support**
- 3. Ineffective Metacognition (Overestimating Mastery and merely remembering facts rather than deeply analyzing)**

How can EFNDT member societies prevent this type of fraudulent behavior?

Audits (EFNDT or National Society or a different Certification Body)

Direct contact with Accreditation Bodies and/or Regional Accreditation Groups

Complaints – evidence?

European Quality Infrastructure Network (EQIN) Concept – Task Force led by EUROLAB (7 March 2024, do you remember?)

The Network Partners are organizations that represent, with a unique voice, the key pillars of the European Quality Infrastructure (QI):
Metrology (EURAMET),
Legal Metrology (WELMEC),
Standardization (CEN, CENELEC),
Accreditation (EA),
Market Surveillance & Product Safety (PROSAFE)
Conformity Assessment (EUROLAB).

Most of the time we find out about the Training or Examination after it has taken place.

An advance warning that a certain (training course+) examination will take place could be a preventive measure.

To Who?

- **Accreditation Body of the Company**
- **Accreditation Body of the country where the course and examination will take place**
- **EFNDT CEC**
- **ICNDT ICEC**

It would at least discourage violations of ISO 9712 rules.



MOST RULE VIOLATIONS OCCUR WHEN TRAINING AND EXAMINATION TAKE PLACE OUTSIDE THE ACCREDITATION BODY'S COUNTRY.

ACCREDITING BODIES CAN AND SHOULD CONDUCT AUDITS IN THAT COUNTRY.

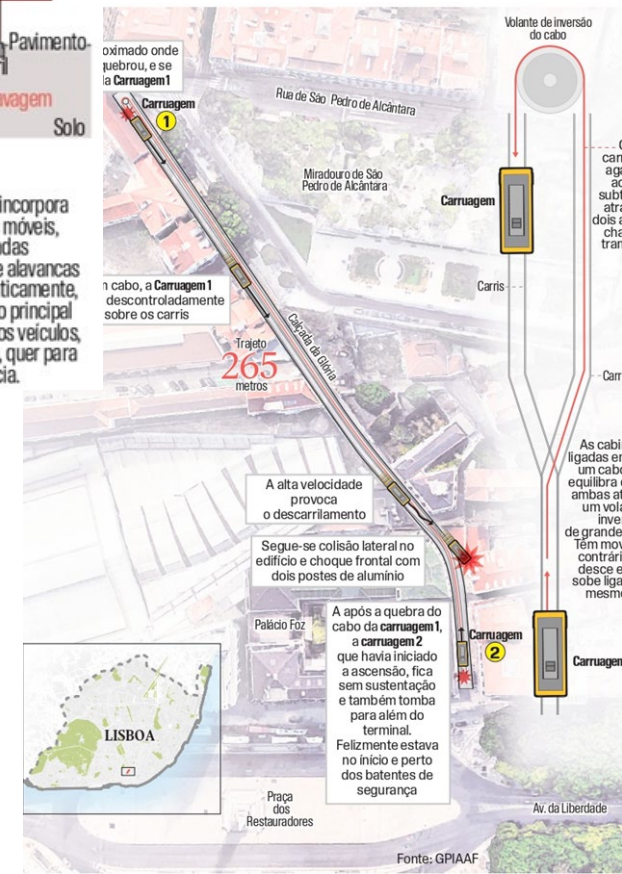
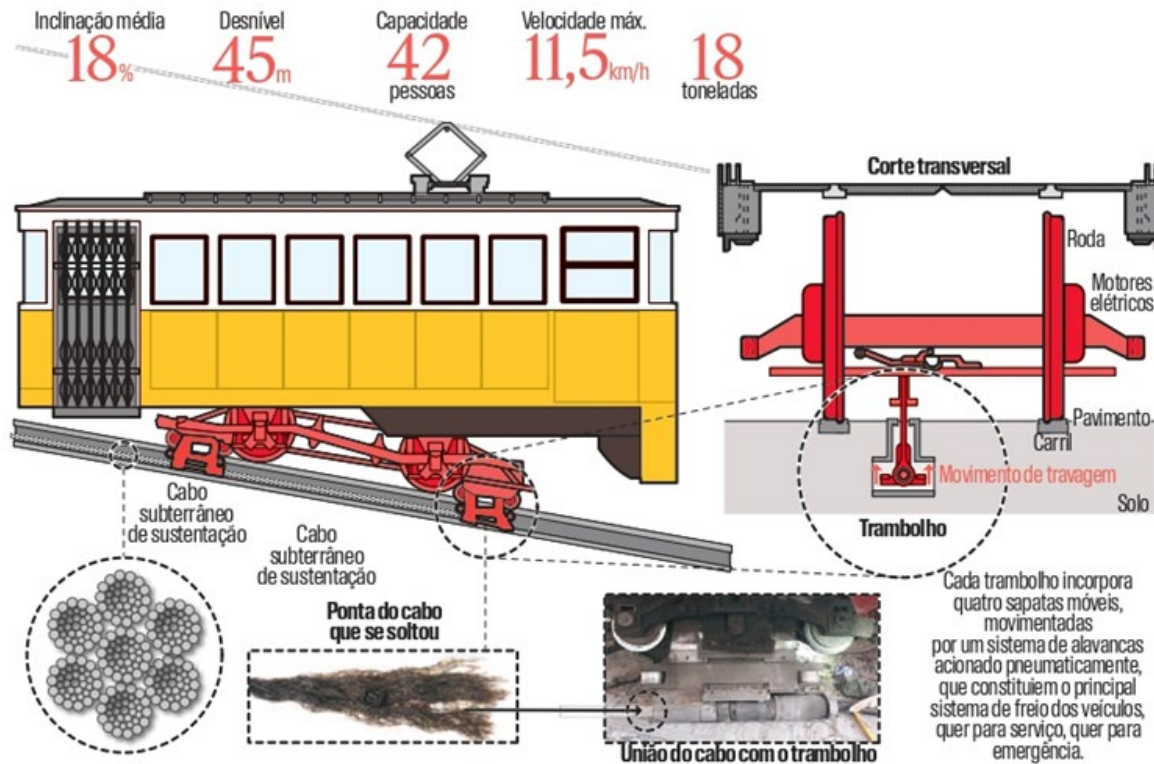
IT IS OUR RESPONSIBILITY (EFNDT, ICNDT) TO RAISE AWARENESS AND LOBBYING FOR THIS TO HAPPEN.



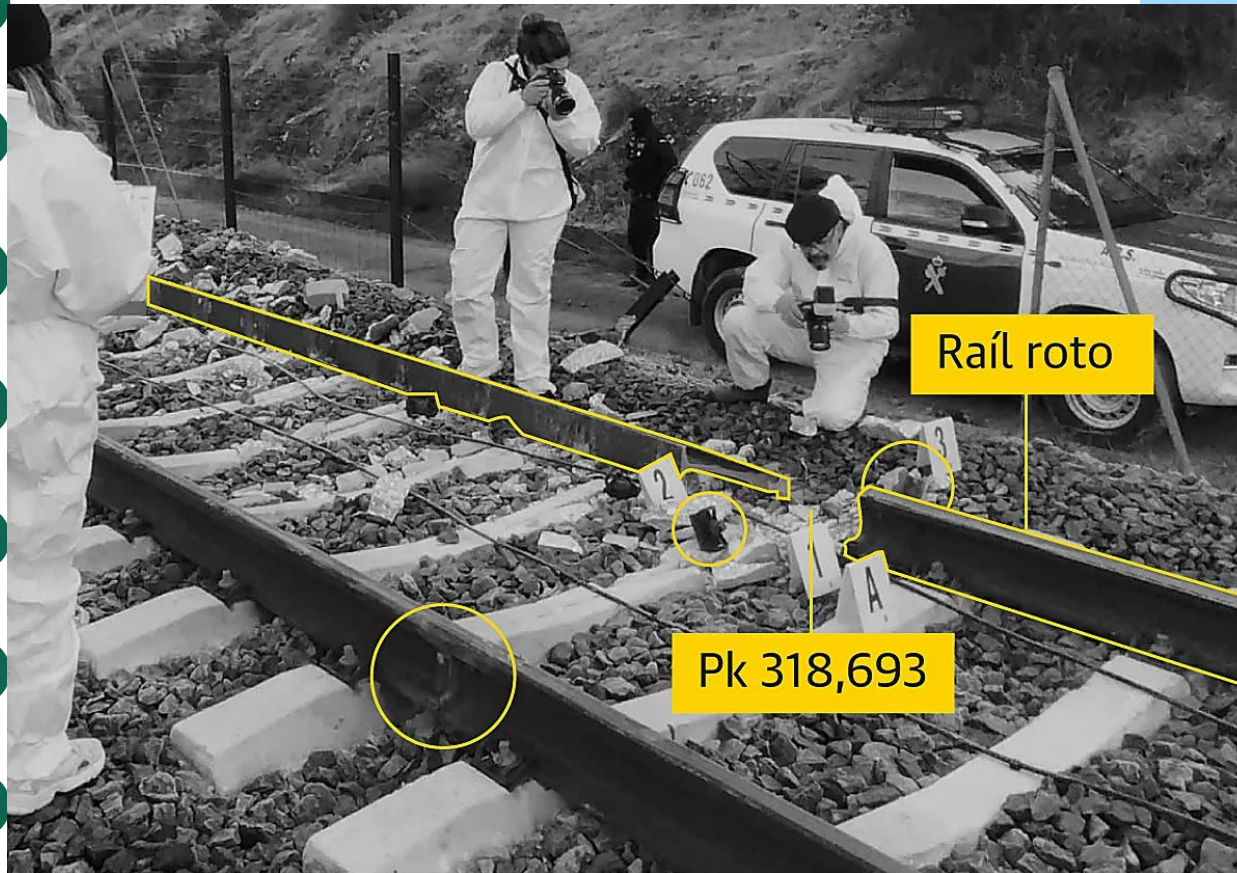
Morandi Bridge collapse August 14, 2018 – Acc. Corriere della Sera, this was the 11th bridge collapse in Italy since 2013.



Glória Funicular, Lisboa - 111 years of service until the tragedy September 3, 2025



Adamuz, Spain high speed train disaster, January 8, 2026



Thank you



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