



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

**Minutes of a meeting of the
ICNDT General Assembly and 43rd ICNDT Meeting**

Internet Meeting

Wednesday 15th June 2022

Participants:	S K Babu	ICNDT Chair & NDTTS (Singapore)	Voting
	B Alves	RELACRE (Portugal)	Voting
	I Baillie	BINDT (UK)	Voting
	C Belinco	AAENDE (Argentina) and PANNDT	Voting
	M Carboni	AIPND (Italy)	Voting
	J Conte	ABENDI (Brazil)	Voting
	T Chady	PTBNIDT/SIMP (Poland)	Voting
	E Eckhardt	SSNDT (Slovakia)	Voting
	A Garcia	AAENDE (Argentina)	Voting
	D Gilbert	BINDT (UK) and ICNDT General Secretary	Voting
	F Gomez	AEND (Spain) and EFNDT	Voting
	C H Gür	Turk NDT (Turkey)	Voting
	E Hristoforou	HSNT (Greece)	Voting
	G Idinger	ÖGFZP (Austria)	Voting
	S Infanzon	AENDUR (Uruguay)	Voting
	H Jansen	SAIW (South Africa), ICEC Chair and AFNDT	Voting
	F Schaditzki	COFREND (France)	Voting
	H Joshi	ISNT (India)	Voting
	P Keszczek	MAROVISZ (Hungary)	Voting
	J Kurz	DGZfP (Germany)	Voting
	Z Markešić	CrSNDT (Croatia)	Voting
	M Mladenovic	SDIBR (Serbia)	Voting
	I Mukriz	MSNT (Malaysia)	Voting
	N Ooka	JSNDI (Japan) and APFNDT	Voting
	T Sakagami	JSNDI (Japan)	Voting
	G Shen	ChSNDT (China)	Voting
	V Syasko	RSNTTD (Russia)	Voting
	L Tipolar	CNDT (Czech Republic)	Voting
	P Wadyalkar	AINDT (Australia)	Voting
	C Wassink	KINT (Netherlands)	Voting
	D I Yoon	KSNT (South Korea)	Voting

C Almeida	FSEND-Relacre, Portugal	Non-voting
G Aufricht	ICNDT Treasurer	Non-voting
C Bird	ICNDT ICEC Secretary	Non-Voting
Y Cho	KSNT/WCNDT President	Non-Voting
J M Farley	(ICNDT Past Chair)	Non-voting
B Ghose	ISNT (India)	Non-voting
P Grosser	AINDT (Australia)	Non-voting
G Kavagiannes	HSNT (Greece)	Non-voting
Y-R Lee	KSNT (Korea)	Non-voting
P Milligan	AINDT (Australia)	Non-voting
A Mullin	WG1 Chair	Non-voting
B Muthu	NDTSS, Singapore	Non-voting
T Ogata	JSNDI (Japan)	Non-Voting
S Ooka	JSNDI (Japan)	Non-voting
C Rizzetti	AIPND (Italy)	Non-Voting
L Sohn	KSNT (Korea)	Non-voting
C Bailey	BINDT (Minute Secretary)	Non-voting

Part-time:

Dr H Affum	IAEA	Non-voting
M Ghaemi	IRNDT (Iran)	Non-voting
M Johannes	SAINT (South Africa)	Non-voting

Apologies:

C Ardeleanu	ARoEND (Romania)
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1. Welcome and confirmation of Quorum

S Babu welcomed all to the meeting and thanked everyone for joining the third virtual GA. Hopefully this will be the last online GA and we will be able to meet physically next year during the ECNDT. It was pleasing to see such a good representation at the meeting today.

A quorum for the meeting was confirmed. The Chair explained that we have a very tight agenda which includes updates from the various WGs as well as the ICEC and the Certification WG. There will also be a slot at the end of the meeting for societies to give a short update of their activities. Anyone who had not submitted a presentation would be welcome to give a quick verbal update. There will also be updates from the regional conferences taking place next year (Asia Pacific and ECNDT).

We will also have an update from the Annual Meeting held on 10th February at which the budgets and accounts were accepted. Various meetings have been held including IEC, WG1 and WG3 and the 20th WCNDT has been arranged for 2024. Terms of office will continue until the WCNDT in 2024.

Roll Call

Participants introduced themselves and confirmed if they were a voting or non-voting member. A quorum for the meeting was confirmed. The requirement for a quorum is at least one third of the voting membership in attendance and there were more than sufficient numbers for today's meeting.

The Annual Report was approved at the Annual Meeting so there would not be any voting required other than approval of the OPs which would be discussed later.

2. Memoriam

None had been received.

3. Membership roll call and voting rules

This had already been covered.

4. Approval of Minutes of 42nd virtual meeting

The Minutes of the 42nd meeting and GA held on 19th July 2021 were unanimously approved.

Review of actions

Action Ref. No. GA/2021-07-19/..	Desc.	WHO	STATUS/COMPLETE BY
1.	Look at WG objectives on the new website and send any comments to S Ooka. Update 15/06/22 – the new website has been developed and S Ooka is in communication with all of the WG Chairs.	WG Chairs	Ongoing. Complete.

5. Note Annual Report and accounts for 2021

The Annual Report and accounts were approved at the Annual Meeting. G Aufricht reported on the budget for 2022 later in the meeting.

S Babu asked all regions to complete their sections of the 2022 Annual Report promptly.

6. ICNDT Strategic Plan – Workshop Update

M Farley reported that a Workshop was held on 1st October 2021, the objectives of which were to explore the challenges and opportunities that emerged during the pandemic. Fifteen societies were represented who were asked to report on innovations due to Covid.

There was a good presentation from the German Society who lead the SIG on NDT Reliability. The German Society has made really good use of Zoom or Teams to kick off their group with 20-30 people at some of the meetings. This was a good example of people taking advantage of the new opportunities that have arisen. They were able to attract people to their meetings who were not able to travel even before Covid so there has been much more activity in this group as a result of online meetings. There are some disadvantages particularly with engaging in all of the different time zones.

The summary of opportunities identified the following:

- Increased attendance at Branch/Chapter/Section meetings/specialist workshops held online.
- Online board and committee meetings have generally proved to be shorter with no travel costs.
- Many societies held their annual conferences on line and, although this filled the gap, online events are not as good as physical events.
- Larger societies have adapted to home working arrangements.

- ASNT has introduced a 'continuous virtual work model' for volunteer work. Previously meetings were only held during a conference but a continuous virtual work model enables committees to meet as often as needed. ASNT also had experience of an online conference and exhibition. There was mixed success depending on the different models of hybrid working.

Suggested actions by ICNDT:

- Branch meetings online – need to improve our guidance for new NDT societies. It is no longer necessary to have the expense of offices or meeting rooms to house an NDT society.
- Online meetings can reach many more people without the time and expense of travel.
- Board meetings online – the benefit is that it is possible to have more frequent, shorter meetings and ICNDT would encourage this in between physical meetings.
- Need to build the frequency of our working groups and committees' meetings into the Terms of Reference.
- Online conference – would use where necessary but continue to have in person conferences as soon as possible.
- The success of the SIG NDE Reliability Group should be built into our plan to encourage more SIGs based on this successful model.
- Often, we think that we should only have a meeting when we have a regional conference but we would encourage our SIGs and committees to meet more frequently online.
- In respect of online conferences and hybrid meetings, we should share good practice guidance on how to run these successfully.

The next task is to build some of these things into the Strategic Plan. Each committee and working group is requested to update their own action plans.

S Babu commented that we have seen a shift of needs as to what the ICNDT could do over the last 2-3 years due to Covid. We will be reviewing this regularly before the next GA for the next 4-year plan. Any other comments should be sent to M Farley and S Babu.

7. Presentation of Financial Report for 2022

G Aufricht presented the draft balance as of 3rd June 2022 which showed an allocation to reserves of €155k. The last donation was received in 2016 from the WCNDT held in Munich. Because of the new fee structure, it was possible to settle the running costs for 2021 without using any of the reserves.

8. Approved Membership fees for 2022

The IEC has recommended no increase to the membership fees for 2022.

9. Presentation of Approved Budget for 2022

The draft balance showed the values budgeted for 2022. One of the biggest incomes is membership fees of €22,700 through the new structure.

We have had total expenditure of €48k which is around eight times more than in 2021. This is because of the website upgrade which is under construction which we had budgeted €25k for. Among other things we will have to cover the disposals by the reserves but there will be enough reserves to cover all of the expenditure necessary.

Under the new membership structure, EFNDT will pay approximately 40% of the membership fees and PANNDT will pay approximately 12%. We do not yet know about the other regions.

S Babu thanked G Aufricht for his diligent work on the finances. The biggest expenditure was for the website which is now live but there are some more features being added to it. JSNDI has also supported this, so it is a shared cost between JSNDI and ICNDT.

Following the report and recommendation of the ICNDT auditors, the financial report including balance sheet 2020 (and 2021) were checked and found to be in order.

The General Assembly voted unanimously to approve the 2020/21 balance sheet and give discharge to the members of the Executive Committee, the Chair, the Secretary, the WCNDT Chair 2020, the former Chair and the Treasurer.

It had previously been decided (ref GA 11/02/2021) that the current Officers, Secretariat and Auditors would remain in office until the GA is held at the 20th WCNDT. The decision of the 22nd WCNDT would also be postponed until the GA is held, likewise the presentation of ICNDT awards. This had been agreed unanimously, subject to an interim GA being held.

10. Approval of revised Operating Procedures

A paper was presented highlighting the proposed changes to OP18 and OP20 and the revised procedures had been circulated in advance of the meeting.

OP18 and OP20 were unanimously approved. C Bird will update the procedures to show that they have been approved. The final versions will be uploaded to the website.

11. Membership report, approval of new members

J Conte presented the attached report.

The Membership Committee is made up of:

Alexander Mullin
David Gilbert
Ferid Herelli
Les Dick
Matthias Purschke (to be replaced shortly)
Shoehi Ooka

J Conte thanked all for their continued cooperation and participation.

ICNDT currently has 64 member organizations, 55% of which are also members of EFNDT.

Challenges – Covid-19 and the problems associated with it. Countries wishing to form a society but face several difficulties (e.g. Chile, Dominican Republic, Ecuador and Venezuela). Economic difficulty to pay the annual fee, mainly by the smaller societies.

INDT Nigeria has been approved as a new member of the ICNDT.

If anyone knows of any countries that would like to apply for membership, we could approach the regional federation for a combined application. It is important to note that it is also possible for any members to move from Associate to Full membership.

S Babu closed the GA meeting at this point.

43rd ICNDT Meeting

12. Regional Group Reports

12.1 APFNDT Report & 16th APCNDT

N Ooka presented the attached report.

APFNDT currently has 14 Full members and 3 Secondary members. Unfortunately some societies have not paid their fees but we look forward to getting back to working with them in the future.

The online membership system is still being developed so invoices for APFNDT/ICNDT membership were sent out in February with most members having paid.

We continue to hold meetings online but hope to be able to meet face to face at future upcoming events.

It is important to continue to support other organisations such as ISO/TC135 and AWF.

The 16th APCNDT will be held from 28 February – 3 March 2023 in Melbourne. Plans for the event are progressing well.

The task group status was presented, and task group activities were highlighted.

APFNDT and AWF signed a MoU in 2019.

The APFNDT meeting schedule was presented.

P Grosser then gave an update on the APCNDT 2023 hosted by AINDT. The event originally scheduled for November 2021 will now be held in February 2023. Due to some other things happening in Melbourne around the same time, the event will run from Tuesday – Friday. The event is hosted by AINDT and will be held at the Melbourne Convention and Exhibition Centre.

We have a local organising committee with a lot of experience with this type of event. Accommodation will be available to suit all budgets and delegates will be accommodated within a five minute walk from the venue.

The weather in February will be very good; Melbourne is an excellent venue and is a very safe city.

Around 80% of the sponsor packages have been sold and approximately 65% of the exhibition booths allocated. It is hoped to have in excess of 200 speakers. P Grosser encouraged all to visit, to talk to their members and submit papers as soon as possible. Delegates will be going to the major conferences beforehand to get some more support.

Y Cho asked for some complimentary booths to promote the WCNDT. P Grosser asked for an estimate of the number of delegates that KSNT would be sending.

12.2 EFNDT Report

F Gomez presented the attached report.

The list of EFNDT members was presented together with the current BoD members. F Gomez is the President and A Mullin is the Vice President.

EFNDT has 10 Working Groups and 3 Forums. WG10 (NDE 4.0) is very active. WG7 (Failure Analysis) is also very active. The Aerospace Forum has held one meeting on the 13-14 June 2022.

The list of WG convenors was presented together with the convenors of the forums.

Special projects and actions:

RIMA is going well.

NDE 4.0 – 2 meetings have been held as well as an international conference organised by DGZfP with the support of ICNDT.

Brexit – 2 extraordinary meetings held regarding the European Pressure Equipment Directive.

ECNDT - new date in July 2023 has been approved by the EFNDT BoD. However, we need to know whether the next WCNDT after 2024 will be held in 2028 or 2030.

The financial situation of the EFNDT is stable and fees have been paid to ICNDT.

Some societies have been suspended due to non-payment of fees.

ECNDT 2023

B Alves gave an update on the ECNDT.

The online system for registrations and abstracts has been reopened on a new platform.

Unfortunately, there was a cyber-attack on the website and we had to recover all of the information that had been submitted. B Alves warned other societies who are organising conferences to be aware of this.

The website has been updated to include an interactive floor plan, updated sponsors online application and updated sponsors logos. A new section has been added with uploaded content on Save the Date, Cross promotion with DE Congress (Kassel) and a related events menu.

33% of the exhibition booths have been sold which is 41% of the total exhibition area. We currently have a small number of sponsors because of the postponement but hopefully this will increase.

The focus of our promotion is at in person events and cross platforms. The ECNDT leaflet has been updated with important dates. We will have a small stand at the DE National Congress in Kassel.

Next steps:

- Social media campaign
- Media tool kit available on the website.
- Refocus on in person events promotion
- Focus on abstract submission – deadline 31 July.
- Papers indexation.

S Babu asked if the conference was planned as a full physical event or whether it would be a hybrid system. It was confirmed that, at the moment, the event is planned as a full physical event.

With regard to the indexing, D Gilbert commented that there has been some progress in this area and we have managed to register the European conference as a series, i.e. we are able to issue an ISSN number as well as an ISBN number. The importance of having an ISSN number is very high with regard to indexing. A lot of the major indexers have certain criteria and one of them for conferences is that they can only be indexed if they are of a series. We are able to apply this to all European conferences going forward as well as possibly going backwards. All European conferences can use the same ISSN number as long as we fulfil certain criteria. D Gilbert will discuss this with the ECNDT Scientific and Programme committee which will set a basis for the process going forward.

12.3 AFNDT

H Jansen reported on AFNDT activities (copy report attached).

Membership – 54 countries and 5 sub-regions potential members. Three active countries and one could be included by default.

Meeting dates for 2021 and 2022 were presented.

Activities include IAEA and ARFA projects towards the end of last year and we are also looking at a project with Cameroon starting next year.

The strategic plan and objectives were presented.

S Babu commented that it was interesting to see how they are trying to promote ISO 9712 in the region. There is a growing need for NDT and personnel certification in South Africa so it is a good move to try and get those members in place. We could perhaps have a workshop to promote the ICNDT and SANDT in the area.

12.4 PANNDT

J Conte reported on PANNDT activities (copy report attached).

The management board was presented. The new board will be elected from next August for the four-year period. We have about 11 members who are considered active, 8 members are operating, and 3 societies are not active at the moment. Four societies are in progress of being implemented (Chile, Ecuador, Venezuela and Dominican Republic).

Main activities:

PANNDT Conference in June 2025 in Canada.

GA meeting held in January.

Three board meetings have been held.

Strategic plan has been prepared.

Member invoices for 2022.

2022 annual fees.

Challenges: Covid-19
Collection of fees from the smaller societies.
Support to the smaller organisations to create their own internal certification schemes.

Priorities: Potential new members – Bolivia, Chile, Costa Rica, Dominican Republic, Ecuador, Peru, Venezuela.

14. **20th WCNDT – Progress Report**

(This item was taken out of sequence on the agenda)

Y Cho reported that the dates for the 20th WCNDT are confirmed as 27-31 May 2024, venue – Songdo Convention, Incheon. The venue is very close to the airport.

There is a new, revamped organising committee which has been restructured to carry out the relevant work more efficiently. The KSNT new President is chair of the organising committee. Although the presidency will end next year, Y Cho will continue as the WCNDT chair.

Timelines: Submission of abstracts – 31 August 2023.
Notification of abstract acceptance – 31 October 2023
Early-bird registration and payment of presenting authors – 31 December 2023
Submission of extended abstract or paper – 31 December 2023.
Preliminary programme – 31 January 2024
Booth application due dates – 30 June 2023

Final programme – 30 April 2024
Pre-registration due dates – 10 May 2024.

It is planned to extend the exhibition hall by another 25% and all the original space has already been sold.

Registration: 306 full participants
Students – 64
Retired/meeting – 15
Accompanying people – 18
Exhibitors (free) – 171
NDT societies (free) – 19

Total – 593 – around 400 people have completed and paid the registration fee. KSNT has received approx. €40k in registration fees. The registration fees have been increased to €1,250 full time rate if paid before December 2023.

Abstract submission status – total papers 1178 and the organisers have to work hard to convert this number of papers to registrations.

Exhibition: Total number of booths booked – 343. The organisers are looking to have an additional 84 booths.

Y Cho suggested a meeting with the ECNDT and APFNDT Presidents to come up with a strategic plan. We should start to think about teaming up together to encourage our regional exhibitors to travel to other exhibitions, perhaps with a good discounted deal. It is a very unusual situation that, because of the pandemic, we have these three big events being held over the next two years. Perhaps we should start to think about helping each other.

Sponsorship – we have a total of 25 sponsors with Olympus (Evident) being the main sponsor. We need to get more sponsors from overseas NDT companies.

S Babu agreed that we need to have discussions with ECNDT and APFNDT. It is nobody's fault that the pandemic affected all our conferences. The shift of the cycle has helped to stabilise the cycle of events. WCNDT are in a good position because a few the sponsors and exhibitors are already signed up. APFNDT has secured some exhibitors so far and we need to work closely with the authors to update their presentations. We should keep the dates fixed which will help to make the regional conferences and the WCNDT a great success.

F Gomez congratulated Y Cho on his presentation and asked when the next WCNDT in Argentina will be in 2028. We need to avoid conflicts with the dates of the ECNDT.

M Farley advised that in the previous 2020 WCNDT plan we had scheduled meetings for the ICNDT, APFNDT as well as workshops and asked if we would be able to continue with these meetings in the new venue. Y Cho confirmed that this will be the case and all the meetings can be accommodated.

13. Working Groups and Committees

M Farley gave a summary – the work of ICNDT follows a hierarchy, i.e. the GA where there is one member from each society with voting rights, the GA leads the IEC which meets every 2-3 months and we have a series of working groups and committees. Each of the working groups were invited to give a brief report.

13.1 Membership Committee

Covered earlier.

13.2 WG4 – Communications/internet and journal

S Ooka reported that 'promotion of the importance of NDT' is the topic for the ICNDT journal 2022. The first issue was supposed to be in May, but this is still in progress. The next edition will be issued in September and the last one for this year will be issued in December. Any news from organisations and societies should be sent to David Gilbert or Zoe White.

Photographic competition 2024 has been planned since 2019 and details are on the website. It is possible for societies to visit the website and download the poster to advertise on their own website. The winner's prize is a free registration to WCNDT. The deadline is 30th January 2024.

Update on the ICNDT website

This was in the Strategic Plan and was planned a couple of years ago. The new website is hosted by JSNDI. S Ooka introduced the updated home page and presented the membership directory. He demonstrated how to edit national society information which can be edited on the home page. A tutorial (which is available on YouTube) was presented. S Ooka thanked his team who have worked on the YouTube tutorial.

SNS – Social Network Service

Our Facebook page has been open for about 7 years, but it is very hard to update. WG4 discussed this and it was noted that on Twitter we only have 7 'friends'. S Ooka asked all present at the meeting to be a 'friend' on Twitter.

Next WG4 meetings are scheduled for APCNDT 2023, ECNDT 2023 and WCNDT 2024.

D Gilbert asked if the President field on the website membership directory was now working. S Ooka replied that he would like the national societies to start filling in and editing their president's details. Log-in details for everyone will be sent out at the end of June.

M Farley commented that there were new people at this meeting today who may not be very familiar with ICNDT. The website provides information on what the ICNDT is and what our activities are.

WG1 – Qualification & Certification

A Mullin reported as follows (copy report attached):

Membership – 22 members.

Colin Bird (ICEC Secretary) approved as new member.

A Mullin thanked all members for their continued support.

WG1 meetings are online, and a meeting was held yesterday,

The agenda and WG1 action plan were presented.

New item on the plan – need to update WG1 web page on ICNDT website and provide new and interesting material on qualification and certification.

Review and update the ICNDT Guide and Recommendations on NDT Personnel Qualification and Certification.

Further development of ICNDT Examination Question Bank (EQB).

Workshop programme – plan to have a workshop in the 2024 WCNDT.

Develop recommendation for Interpretation of ISO 9712:2021.

Develop an ICNDT Recommendation to Good Practice – Fraudulent Management by Personnel Certification Bodies (including provision of impartiality to meet requirements of IOS/IEC 17024:2012 and ISO 9712:2021).

Develop recommendation on recognition of certificates under ISO/IEC 17024:2012 and ISO 9712:2021.

Status report on ISO 9712:2021

ISO/TC135/SC7 is responsible for the standard and a history of meetings from 2017 was presented. ISO 9712:2021 was finally published in December 2021 and we now have the new edition of the standard. F Gomez asked if there was a task group for penetrants. S Ooka believed that a task group was set up and they will also be creating a WG under SC7. If you are registered in your national standards bodies, you will be invited to that meeting. SC7 would be more than welcome to invite a liaison from ICNDT to that meeting. They will be talking about methods versus techniques and will talk about sectors later.

13.4 Certification Executive Committee

H Jansen presented the attached report and thanked Colin Bird for all his hard work in compiling the report and all of the work that he does with corresponding with the schedule members.

47 societies have signed up to Schedule 1 and 21 PCBs are registered under Schedule 2. Recent new registrants to Schedule 2 are Taiwan, Korea, and India. Recent renewals are China, South Africa, and Brazil.

There are two applications in progress – Argentina and Czech Republic. All continuity checks were completed last year.

OP20 – in cases where the PCB is not available, the process now allows for remote auditing.

Two EQBs have been issued to India and Mexico. We are currently looking at a new platform for the EQB.

13.5 WG3 Report

J Kurz reported on behalf of Toni Erhard. Two workshops and conferences have been arranged, one is an international conference on NDE 4.0 which will be held from 24-27 October this year in Berlin. It will be a face to face conference and the programme is almost ready. The conference home page will be available very soon.

The SIG NDT Reliability Group decided that they will have a workshop on international NDT reliability topics in 2023 which will be in the frame of the SPIE conference held in March in California. M Farley asked if T Erhard was willing to continue with his ICNDT activities but was advised that the membership activities have been passed to J Kurz who will check on the other activities. If T Erhard is not willing to continue then we would be looking for a volunteer for the role. J Kurz will check with T Erhard.

Action Ref. No. GA/2022-06-15/..	Desc.	WHO	STATUS/COMPLETE BY
1.	Check with T Erhard whether he will continue with any ICNDT activities.	J Kurz	Ongoing.

With regard to committee and WG chairs, M Farley pointed out that the chairs are appointed for four years at a GA (normally held at the World Conference). The OP states that WG chairs have to be reviewed after two years so two years before the next WCNDT is the right time for a review. We believe that all are willing to continue until 2024 but we need to solve the issue of whether T Erhard is continuing or not. Anybody who wants to join one of the WGs is invited to contact either D Gilbert or the WG chair.

14. Progress report on 20th WCNDT, Korea

Covered earlier.

15. Associated Bodies Reports

15.1 ISO TC 135 Report

N Ooka advised that he has now retired from the position of Chair of ISO TC 135 and Dr Ogata was introduced as the new Chair.

N Ooka thanked all countries who were involved in the new edition of ISO 9712 and thanked everyone for their support over the years.

On behalf of ISO TC 135, Dr Ogata expressed gratitude to everyone for their continued support in ISO activities. Last year ISO TC 135 made progress in standardising and making amendments to ISO 1972. This year we will begin discussions on the next issue of ISO 9712, including an introduction on new technologies.

Dr Ogata reported that this year the ISO TC 135 will begin discussion on the next issue of ISO 9712 which will include an introduction to new technologies. We will also begin work on harmonisation with EN standards etc.

S Ooka then gave a brief report on the activities of TC 135. ISO is now talking about the sustainable investment goals and the target items were presented. We have 93 published ISO standards under TC 135 and 12 standards under development. We have 36 participating members and 32 observing members. The last meeting was held in August 2021 over 9 days and the major items taken as ISO TC 135 resolutions were:

- To reactivate WG1 – a meeting will be happening soon. Anyone interested in attending this meeting would be more than welcome.
- To establish a task group to review methods, techniques, and sectors so as these are considered in the next revision of ISO 9712.
- Agreement that the Certification Manager will investigate with the ISO secretariat how to best action the ISO 25107 and ISO 25108 technical specifications which are to be developed as an ISO standard.

Next meetings planned for 2023 in Lisbon and in 2024 and WCNDT.

15.2 IIW Report

A Mullin presented the attached report.

ICNDT and IIW signed a Memorandum of Understanding in 2017.

IIW was founded in 1948 by welding institutes or societies of 13 countries. Membership today comprises welding associations from 49 countries with more nations indicating interest. The vision is that IIW is the leading global community linking industry, research, and education to the advancement of welding and joining for a safer and sustainable world.

The next GA is scheduled for July 2022 and will be organised as a physical meeting with the option of joining remotely.

Casper Wassink is leading a working group that is trying to develop standards for eddy current array testing. The draft is nearly complete and will be submitted first to the IIW GA who will decide at that meeting if it will go to the ISO committee for management or if it will be kept under the management of the IIW. In both cases C Wassink will keep all parties informed.

15.3 IAEA Report

D Gilbert gave a brief presentation on the activities of WG5 (see attached). He introduced a new Technical Officer from IAEA, Dr Hannah Affum who introduced herself to the GA participants. We look forward to further collaboration between our organisations.

16. Forward Plan

M Farley reported on the following planned meetings:

WG1	June 2022 (online meeting)
WG3	October 2022 (online meeting)
APCNDT	28 February – 3 March 2023.
	ICNDT Annual Meeting, IEC, WG3, WG4, WG1 (hybrid?)
PANNDT	19-23 June 2023
	WG6 meeting
EFNDT	ICNDT GA (physical)
	WG1, WG3 (physical)
WCNDT	GA – physical
	WG1, WG3, WG4, WG5 – physical
	ICNDT workshops
	ISO meetings

M Farley suggested the following four year plan for regional and world conferences:

2023	APCNDT & ECNDT
2024	WCNDT
2025	PANNDT, Canada
2026	Suggested ECNDT (half way between WCNDTs)
2027	APCNDT
2028	WCNDT, Argentina

Then consider a five-year cycle to accommodate the AFNDT conference.

F Gomez proposed that the date of the next ECNDT conference be discussed by the EFNDT BoD tomorrow.

M Farley pointed out that ICNDT needs to have a physical GA every two years.

S Ooka advised that the next APCNDT is scheduled for 2026 in Hawaii.

D Gilbert said that his personal opinion was that the programme suggested by M Farley looked good and would get us back to the correct cycle of events. However, if plans have already been made, it would depend on whether ASNT would consider changing the date of the APCNDT. S Ooka will check with ASNT if they have secured the venue and paid for it and will obtain this information in time for the EFNDT BoD meeting.

M Farley pointed out that we do not want to have two regional conferences in the same year. If we want to have a physical GA between the World Conferences, then the ECNDT would give us the most members present. If we had a GA in Hawaii, the chance of having a large number of ICNDT members present would be much less.

17. Presentations by member societies

Presentations were given by the following societies:

Argentina	Italy
Brazil	Japan
Croatia	Russia
Greece (verbal)	Singapore
India	UK

Meeting closed.

MF slides for GA June 2022

Item 6

ICNDT STRATEGIC PLAN – IAC WORKSHOP UPDATE

Thanks to
The British Institute of NDT- For continued
support



The World Organisation for NDT

**WORKSHOP TO EXPLORE IDEAS FOR THE NEXT ICNDT
STRATEGIC PLAN**

**Objective was to explore the challenges and opportunities
which have emerged in the Covid era and to look for new
areas of action for ICNDT**

1st OCTOBER 2021

Programme for Workshop (total duration 2 hours)

- 1. Introductions and reminder of objectives
- 2. Invite attendees to report innovations that have been necessary because of COVID – successes and failures
- 3. Note which innovations deserve attention by ICNDT
- 4. Discuss other ideas for ICNDT actions now (during pandemic) and in the future
- 5. Plan for IAC meeting to update Strategic Plan accordingly
 - Attendance
 - Timing



2. Invite attendees to share innovations that have been necessary because of COVID

■ Pre –arranged

- David Gilbert/ Karen Cambridge Branch/Section meetings on-line
- Gara Liming (planned for 12.00 UK time) – ASNT innovations
- David Gilbert/ Karen Cambridge Conferences on-line
- Daniel Kanzler/Marija Bertovic Specialist international Group meetings on-line
- Iain Baillie Board meetings on-line

■ Other ideas

- Ferid Herelli – Specialist group to focus on expertise in mediation and arbitration
- Ferid Herelli - Create a database of the main defects and damage detected by each NDT method which could constitute a reference for users by explaining in the form of technical sheets the main causes and advice to be taken into consideration.

- Daniel Kanzler and Marija Bertovic
- Joint Chairs of ICNDT Specialist international Group on NDT Reliability
- Meetings were previously limited to international conference events and workshops
- COVID prevented these
- Alternative on-line meetings are proving to be a success and a model for other similar groups??

How to establish a new SIG during Covid

■ Who are we:



Source: Müller, et al, 2014: "Conclusions of the 5th European-American Workshop on Reliability of NDE

■ We want to define approaches to evaluate the capability and the reliability of NDE testing systems

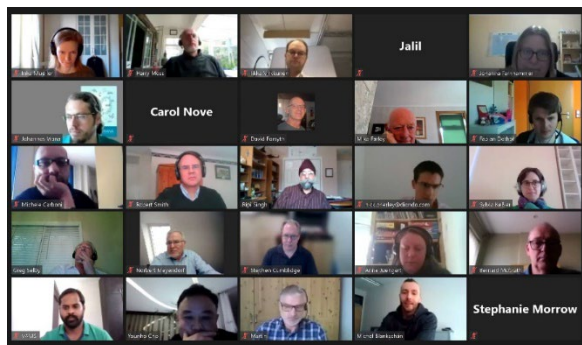
■ Since the 1st European-American Workshop "Determination of Reliability and Validation Methods on NDE", Berlin, 1997, there were different workshops, tutorials and discussions in the topic (the last was the 7th EAW in 2017)

■ With the SIG "NDT Reliability" the successful series of workshops about the reliability of NDE should continue

■ And an NDT Reliability Guideline should be published

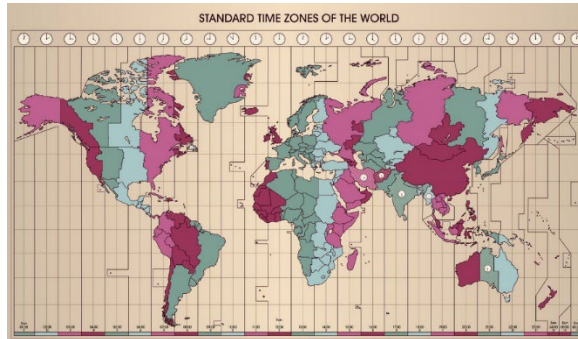
■ The next workshop is planned to be part of WCNDT

Advantages of the online meetings



- The continuity of the regular discussions could be retained
- Participants from over the world could join, even from institutions with strict traveling restrictions:
 - USAF
 - NIST
 - NRC
- Even interested people, which are working right now outside of the field could join
- The timeslot for the meeting was effectively filled with discussions

Disadvantages of the online meetings



- Due to the different time zones, it is not possible to include all interested people in the discussion
- To include new people and new regions is hard
- The personal talk and the informal discussions are missing
- The beer and whiskey are missing
- The need to fill your time with out-of-the-box discussions is not there.

Summary of opportunities identified

Who	What	Comments
David Gilbert	Branch/Chapter/Section meetings/ workshops on-line	1. Societies reported big increase in “attendances” for on-line meetings 2. Avoided time and expense of travel
Iain Bailie	Board /committee mtgs on-line	1.Meetings have proved to be shorter and travel avoided
David Gilbert	Annual Conferences on-line	Has filled the gap but not so good as physical conferences and Exhibitions
Daniel Kanzler/Marija Bertovic	Specialist International Group meetings on-line	1. Reliability group has been very successful –online mtgs, bigger attendance, (inc people not able to travel)
Gara Liming	Home working arrangements/ changed facility needs (“team spaces”)	Applicable only to larger National societies
	“Continuous virtual work” model for volunteer work	Previously all committees were restricted to mtgs at conferences
	Conferences on-line	Mixed success with different odels

How to address these opportunities in the Strategic Plan

Who	What	Suggested action by ICNDT
David Gilbert	Branch/Chapter/Section meetings on-line	<ol style="list-style-type: none"> 1. New guidance for fledgling NDT Societies – no longer is it necessary to have the expenses of offices or meeting rooms to host an NDT society 2. On-line meetings can reach many more people without the time and expense of travel
Iain Bailie	Board /committee mtgs on-line	<ol style="list-style-type: none"> 1. Encourage more frequent shorter meetings to maintain continuity of action eg ICNDT Executive Committee, WG1 etc 2. Build frequency of meetings into terms of reference
David Gilbert	Annual Conferences on-line	<ol style="list-style-type: none"> 1. Use on-line conferences where necessary but continue in-person World and regional conferences as soon as possible
Daniel Kanzler/Marija Bertovic	Specialist International Group meetings on-line	<ol style="list-style-type: none"> 1. Kick –start more SIGs based on the successful model of the Reliability group 2. Broaden the scope of SIGs to include non-technical topics (inc a new SIG for specialists in mediation and dispute resolution)
Gara Liming	Home working arrangements/ changed facility needs (“team spaces”)	n/a
	“Continuous virtual work” model for volunteer work	<ol style="list-style-type: none"> 1. Encourage committees /WGs to adopt this approach
	Conferences on-line	<ol style="list-style-type: none"> 1. Share practical guidance on how to run hybrid meetings successfully

- Next task is for us to draft an update of the Strategic Plan
- In due course the revised Strategic Plan will go to the ICNDT Executive committee and then the Annual Meeting for approval.
- Each committee/WG is requested to update its own Action Plan (WG1 started this yesterday!)

Item 16 Plan for future meetings

■ 2022

- WG1 June on-line
- WG3 on-line mtg - October

■ 2023

■ APCNDT 28Feb - 3 March

- ICNDT Annual Mtg, IAC mtg, WG3 mtg, WG1 hybrid?

■ PANNDT 19-23 June

- WG6 mtg

■ EFNDT

- ICNDT GA -physical mtg
- WG1, WG3 – physical mtgs

■ 2024

■ WCNDT

- GA – physical mtg
- WG1, WG3 – physical mtgs
- ICNDT Workshops
- ISO mtgs





INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

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			Budget 2022
Draft Balance 03.06.2022 with Budget 2022	€	€	€
	Income 2022	Expenditure 2022	
Opening balance	138.572,95		138.572,95
Donation from Austrian Chamber of Commerce	0,00		500,00
Donation from WCNDT	0,00		00,00
Members fee (new fee structure)	13.259,00		22.792,00
Bank account Nr.: 290-317-99501 interest	3,45		30,00
PCB CA service: OP 20	0,00		1.000,00
MRA Service: OP19	2.620,00		5.400,00
EQB Product: Application fees OP23	7.500,00		3.750,00
EQB update fees OP23	0,00		600,00
Meeting expenses/Go to meetings		0,00	1.500,00
Bank account Nr.: 290-317-99501 cost		107,28	300,00
Bank expenditure for incoming fees		96,60	50,00
Printing costs		0,00	2.000,00
Office costs		0,00	2.000,00
PCB CA service costs: system administration, insurance, OP20		760,00	2.000,00
MRA/PCB: Auditorpayment OP19		1.600,00	6.400,00
EQB Service costs: OP23		309,46	2.500,00
Administration and overheads, contingencies (CB)			
Professional Service		4.000,00	3.840,00
Preparation of ICNDT Monographs		0,00	0,00
Supplies (ICNDT badges, flags, a.o.)		0,00	2.000,00
Miscellaneous (shipping, conference calls)		0,00	500,00
Website upgrade		0,00	25.000,00
Total	162.110,4	6.873,34	48.090,00
Allocation to reserves		155.237,06	124.554,95
Gerhard Aufricht, treasurer, Vienna, 2022.06.10			

Registered office: The Austrian Society of NDT, Jochen Rindt Straße 33, 1230 Wien/Austria

Email: office@oegfzp.at; Email: treasurer@icndt.org

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INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

ICNDT Operating Procedure OP18: ICNDT Certification Executive Committee (ICEC)

Executive Summary

This procedure provides the terms of reference and method of working for an ICNDT Certification Executive Committee (ICEC).

This document is a strategic level Operating Procedure and is subject to approval by the ICNDT Executive Committee and the ICNDT and the International Committee.

Disclaimer

ICNDT accepts no liability for the use of documents or services provided by the ICEC. In accordance with ISO 9712 (*Non-destructive testing – Qualification and certification of NDT personnel*) the responsibility for the quality of NDT rests with the employer of the certificated person.

Jurisdiction

The operation of the ICEC is subject to the jurisdiction of Austria.

Secretariat: The British Institute of NDT, Midsummer House, Riverside Way, Bedford Road,
Northampton NN1 5NX UK

Tel: +44 1604 438300 Email: gensec@icndt.org

The ICNDT is registered as a legalised Association with its seat in Vienna, Austria.

ICNDT Registered Office: 1230 VIENNA, Jochen-Rindt-Straße 33

Chair: S K Babu Email: chair@icndt.org

Revision and Approval Status

Issue / Draft	Date	Details	Status / Approval
Draft G	10/12/2012	Draft distributed for review and comment by ICNDT Chair, WG1 Chair and ICEC Chair	Draft
Draft H	24/04/2016	Changes to format and content; draft distributed for review and comment by ICEC members	Draft
Draft I		Incorporates comments from ICEC members; to IEC for approval	
OP18 Revision 3	15/02/2017	Approved by PGP replaced with approval by the International Committee. Version 1	For PGP Approval
OP 18 Draft Revision 4	14/03/2022	Incorporates ICEC committee members for special circumstances and re-election of chair	For GA Approval

1 Background

Clause 8.3 of the ICNDT Constitution states “the ICNDT Executive Committee (IEC) may nominate Working Groups and Committees to execute specific tasks. They shall report on their work to the full ICNDT”.

The ICNDT Certification Executive Committee (ICEC) is established to implement and manage processes developed by ICNDT Working Group 1 (WG1) which, according to its terms of reference, is established to achieve specified objectives, detailed in the ICNDT Strategic Plan, covering the fields of qualification and certification. In addition, the ICEC may carry out other tasks prescribed by the IEC.

In order that a functional working relationship is established and maintained, the constitutions of both WG1 and the ICEC include the participation in the meetings of each committee by members of the other.

2 Scope

The ICNDT Executive Committee (IEC) delegates specific responsibilities to the ICNDT Certification Executive Committee for the management of activities relating to NDT personnel qualification and certification, including but not limited to:

1. an ICNDT Multilateral Recognition Agreement (MRA),
2. conformity assessment of Personnel Certification Bodies (PCBCA) against specified standards or criteria, and
3. the management and administration of an ICNDT Bank of Examination Questions (EQB).

3 References

OP 6	Approval of ICNDT publications
OP 19	ICNDT Multilateral Recognition Agreement
OP 20	Personnel Certification Body Conformity Assessment
OP 23	Management of the ICNDT Examination Question Bank
OP 24	Procedure for Complaints and Appeals relating to services provided by the ICEC
ISO 9712	Non-destructive testing – Qualification and certification of NDT personnel

4 Abbreviations

EQB	Examination Question Bank
GA	ICNDT General Assembly
ICEC	ICNDT Certification Executive Committee
ICNDT	International Committee for Non-Destructive Testing
IEC	ICNDT Executive Committee
MRA	Multilateral Recognition Agreement
OP	Operating Procedure

PCBCA Personnel Certification Body Conformity Assessment
WG1 ICNDT Working Group 1

5 Responsibilities

5.1 ICNDT Executive Committee (IEC)

The IEC holds the following responsibilities with respect to the work of the ICEC:

1. Approval of policy;
2. Nomination of ICEC Chair and ICEC Members for appointment by the ICNDT General Assembly;
3. Appointment of ICEC Secretary;
4. Approval of budgets and fees;
5. Ensuring ICEC activities are indemnified by adequate liability insurance.

5.2 ICNDT Certification Executive Committee (ICEC)

The ICEC shall be responsible to the IEC for the management and administration of the processes detailed under Scope (§2 above).

The ICEC shall maintain close liaison with the Chair of WG1 on the technical aspects of personnel qualification and certification.

5.3 ICEC Chair and Vice-Chair

1. By agreement of the IEC, the ICEC Vice-Chair may take on the responsibilities of the ICEC Chair in the event of the unavailability of the Chair.
2. The ICEC Chair is responsible to the IEC for planning the work of the ICEC, taking into account the ICNDT Strategic Plan and the requirements of the processes within the scope of the ICEC.
3. The ICEC Chair is responsible for all actions taken by the ICEC Secretary.

5.4 ICEC Secretary

In carrying out the responsibilities herein the ICEC Secretary shall consult the ICEC Chair (or Vice-Chair if appropriate), seeking approval for actions where necessary. Responsibilities are as follows:

1. Administering day to day work of the ICEC including, but not limited to, the administration of:
 - 1.1. The ICNDT MRA (OP19).
 - 1.2. The ICNDT PCBCA (OP20).
 - 1.3. The ICNDT EQB (OP23).
2. Providing reports on the work of the ICEC to meetings of the IEC and WG1 and others as required.
3. Attending meetings of WG1 and IEC as required.
4. Producing, or managing the production of, Operating Procedures and Work Instructions related to the work of ICEC. This comprises:
 - 4.1. Preparation and circulation of initial drafts.

- 4.2. Incorporating comments raised and maintaining a record of comments and their resolution.
- 4.3. Arranging publication on the ICNDT website.

6 Membership

1. Under normal operating circumstances the ICEC shall comprise seven members: the ICNDT Treasurer, the Chair of ICNDT WG1, a chair, and four further members who are representative of the ICNDT Regions (each preferably, but not mandatorily, from a Signatory to the MRA). Although participating in all the activities of the ICEC, the ICEC Secretary is not a formal voting member of the ICEC.
2. The IEC may propose one of the four additional members to take on the role of Vice-Chair (see §5.3 above).
3. Other than where ICEC membership is automatic (that is, the Treasurer and WG1 Chair), the Members and Chair (and, if necessary, Vice-Chair) of the ICEC are proposed by the IEC for appointment by the GA.
4. ICEC Members shall be appointed by the General Assembly (GA) for a term of office lasting two years until the subsequent GA, with the potential for renewal thereafter.
5. Interim appointments, where a member becomes unavailable or where a change of membership is deemed necessary by the ICEC or the IEC, an additional member shall be made by the IEC.
6. It is proposed that the position of Chair is to be considered as a rotation post, the chair returning to either a regional representative or vice chair as appropriate.

7 Method of Working

1. The ICEC is responsible to the IEC for planning its work, taking into account the ICNDT Strategic Plan and the requirements of the MRA, PCBCA and EQB.
2. The ICEC shall not normally hold physical meetings, with business being conducted by email and electronic conferencing. The ICEC Chair and Secretary shall ensure that other members are consulted on significant matters and members shall be provided with regular progress reports.
3. The IEC and any member of the ICEC shall have the right to call for a physical meeting of the ICEC. To minimise travel costs, these may be held in association with a GA meeting, ICNDT regional conference or the World Conference on NDT.
4. The ICEC shall ordinarily work by consensus. If required, voting shall be by simple majority with a quorum of 50% of the membership. In the case of a tied vote the Chair shall have a casting vote.
5. The ICEC shall draft, for approval by the IEC, an annual income and expenditure budget covering the management and administration of the processes detailed under Scope (§2 above).
6. The ICEC Chair and/or Secretary (or a member of the ICEC nominated by the Chair) shall:
 - 6.1. Provide reports on the activities of the ICEC to the IEC, attending these meetings when appropriate by arrangement with the IEC Chair;
 - 6.2. Publicise the activities of the ICEC on the ICNDT website and in the ICNDT Journal;
 - 6.3. Report on the work of the ICEC to ICNDT Working Group 1;

Due to the confidential nature of the processes managed by the ICEC, correspondence and draft documents shall be limited to the members of ICEC and the ICEC Secretary. With the agreement of the ICEC Chair, the Chair of WG1 (who is an automatic member of ICEC) may consult WG1 members on specific relevant points.

7. Recognising that ICEC members may themselves be associated with Personnel Certification Bodies, all members shall respect the confidentiality of any information gained as a member of ICEC and shall absent themselves from any discussions or decisions where they have an overriding personal interest.

8 Finance

1. Proposed charges for services provided, including administration charges by the ICEC Secretariat, shall be agreed in advance by the Treasurer and the IEC.
2. Any expenditure not covered by firm ordered income shall be agreed in advance by the Treasurer and the IEC and included in the ICNDT annual income and expenditure budgets.

9 Publications

9.1 Official ICNDT Publications

Where the ICEC produces or contributes to official ICNDT publications (that is, publications carrying the name and endorsement of ICNDT), this shall be done in accordance with Operating Procedure OP 6.

9.2 Operating Procedures

Operating Procedures shall be approved for issue by the IEC. Operating Procedures shall bear:

1. A disclaimer stating that the ICNDT accepts no liability for the use of the procedure noting that, in accordance with ISO 9712, the responsibility for the quality of NDT rests with the certificated person.
2. A statement that the process covered is subject to the jurisdiction of Austria.

9.3 Work Instructions

Work Instructions shall be approved by WG1 and the IEC. These shall be subordinate to an Operating Procedure and shall amplify or clarify details of the Operating Procedure but shall not conflict with the broad principles of the Operating Procedure. In general, there are two types of Work Instruction:

1. Those providing step by step instructions on the process. These shall usually be marked 'ICEC Internal Use Only'.
2. Those providing additional technical guidance on aspects of the Operating Procedure. These shall be publicly available.

10 Complaints and Appeals

The procedure to be followed in the event of complaints and appeals connected with services provided by the ICEC is set out in Operating Procedure OP24.



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

ICNDT Operating Procedure OP20: Personnel Certification Body Conformity Assessment

Executive Summary

The Members of the International Committee for Non-Destructive Testing have recognised the need for a peer review system for Conformity Assessment of NDT Personnel Certification Bodies as a supplement or alternative to the accreditation provided by national and international accreditation bodies. This is needed to support the ICNDT Multilateral Recognition Agreement for NDT personnel certification.

The work of developing the conformity assessment system is based upon the principles enshrined in ISO/IEC 17040 (*Conformity assessment – General requirements for peer assessment of conformity assessment bodies*) and was initially undertaken by ICNDT Working Group 1 on Qualification and Certification. The administration and implementation of this system is managed by the ICNDT Certification Executive Committee.

This document is a strategic level Operating Procedure as defined in Operating Procedure OP18 and is subject to approval by the ICNDT Executive Committee and the International Committee.

Disclaimer

ICNDT accepts no liability for the use of certification awarded by any Personnel Certification Body assessed under the conformity assessment system. In accordance with ISO 9712 (*Non-destructive testing – Qualification and certification of NDT personnel*) the responsibility for the quality of NDT rests with the employer of the certificated person.

Jurisdiction

The ICNDT Personnel Certification Body conformity assessment scheme is subject to the jurisdiction of Austria.

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ICNDT Registered Office: 1230 VIENNA, Jochen-Rindt-Straße 33

Chair: S K Babu Email: chair@icndt.org

Revision and Approval Status

Issue / Draft	Date	Details	Status / Approval
Issue 1	15/05/2013	Previous issue	Approved by ICEC, IEC, PGP & GA. Issued
Issue 2	18/12/2015	Major revision consistent with OP19	Approved by ICEC, IEC, PGP & GA. Issued
Revision 3	15/02/2017	Approval by PGP replaced with approval by the International Committee. Issue 2 changed to Revision 3.	For PGP approval
Revision 4	20/02/18	Revised to include learning from audit.	For ICEC, IEC and GA approval
Revision 5	06/05/22 06/05/2022	Revised to include as a minimum remote on-line audit	For GA approval

1 Scope

This Operating Procedure covers the operation of the ICNDT PCB conformity assessment scheme (PCB CA). The Operating Procedure is supported by one or more lower level Work Instructions under control of the ICEC.

This document sets out the process for carrying out the PCB CA and provides guidance to applicant NDT Personnel Certification Bodies (PCB) prior to conformity assessment by an ICNDT appointed audit team. Assessments will be carried out for compliance with ISO/IEC 17024 and ISO 9712, as appropriate. It is recommended that the applicable standard(s) and this document are read carefully by applicant organisations in order to avoid unnecessary effort and delay in the assessment process.

2 References

OP 18	ICNDT Certification Executive Committee
OP 19	ICNDT Multilateral Recognition Agreement
OP 24	Procedure for Complaints and Appeals Relating to ICEC Activities
ISO 9712	Non-destructive testing – Qualification and certification of NDT personnel
ISO 17011	Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies
ISO/IEC 17040	Conformity assessment – General requirements for peer assessment of conformity assessment bodies
ISO/IEC 17024	Conformity assessment – General requirements for bodies operating certification of persons

Note 1. Any requirement for conformity with the above documents means conformity with the current edition (up to 12 months will be allowed between the issue of a revision and implementation of a referenced document).

3 Abbreviations

CA	Conformity Assessment
IAF	International Accreditation Forum, www.iaf.nu
ICEC	ICNDT Certification Executive Committee
ICNDT	International Committee for Non-Destructive Testing
GA	ICNDT General Assembly
MRA	Multilateral Recognition Agreement
OP	Operating Procedure
PCB	Personnel Certification Body
PGP	Policy & General Purposes Committee
WG1	ICNDT Working Group 1

4 Objective

The ICNDT conformity assessment (CA) system is intended to facilitate participation in the ICNDT Multilateral Recognition Agreement (MRA) by Personnel Certification Bodies (PCB) in the following cases:

- Where suitable national accreditation is not available;
- Where it is necessary to supplement national accreditation, particularly in ensuring that an NDT expert participates in the accreditation in order to ensure compliance with the current ISO 9712; NOTE ICNDT allows a 12 month transition period where the ISO is updated to allow the PCB internal systems to be updated to comply with any changes within the Standard.
- If, for any other reason, the PCB prefers to undergo conformity assessment by ICNDT.

See OP 19 for details of the ICNDT MRA.

5 Process

5.1 Criteria for Assessment

The criteria for compliance are:

- ISO 9712, *Non-destructive testing – qualification and certification of personnel*;
- ISO/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons*.

A PCB may apply to be assessed for conformance with ISO 9712 for any of the industry or product sectors defined in the standard, and for those NDT methods and techniques defined in the standard, as listed in Section 1 (Scope).

The system specified in ISO 9712 can also apply to other NDT methods or to new techniques within an established NDT method, provided a comprehensive scheme of certification exists and the method or technique is covered by International, regional or national standards. A PCB wishing to include new methods or techniques in its scope of assessment shall contact the ICEC Secretary, who will seek guidance from ICNDT Working Group WG1.

Only those for which it is judged to be satisfactory will be included in the ICNDT certificate of conformance. It should be noted that, the wider the scope applied for, the more time will be required for assessment.

5.2 Application

An ICNDT CA will only be carried out to support an application for registration under Schedule 2 of the ICNDT MRA (see OP19). There are two cases where this will occur:

- It will usually occur where an application for Schedule 2 registration under OP19 has failed because ICNDT judges that some or all of its requirements have not been met. In this case,

the applicant PCB will be offered a complete or partial compliance assessment under this Operating Procedure. If the applicant PCB wishes to proceed, the document package

presented for the original MRA application together with the results of the assessment by the ICNDT Certification Executive Committee (ICEC) shall form the basis for proceeding with the OP20 process.

- Alternatively, the PCB may wish to proceed directly to a compliance assessment, in particular when there is no accreditation body in the country of the applicant or their accreditation body is not a member of the International Accreditation Forum (IAF). In this case, the PCB shall provide an application for MRA Schedule 2 registration under OP19 on a form available from the ICEC Secretary. This form shall be completed as far as possible, including supporting documents, and this package shall form the basis for proceeding with the OP20 process.

In both cases the ICEC Secretary shall arrange for the applicant PCB to be invoiced for the application fee (see 6.1 below). On receipt of payment of the application fee, the ICEC Secretary shall assess the application for completeness and eligibility, consulting the ICEC Chair if necessary. The ICEC Secretary shall also confirm with the ICEC Chair the required scope of the assessment: whether it covers the full scope given in 5.1 above or if, depending on the assessment of an MRA application, a partial assessment is considered adequate. Where the application includes NDT Methods not covered in the scope of ISO 9712 or new techniques within an established NDT method (see 5.1), the ICEC Secretary shall seek guidance from Working Group WG1.

If there are any impediments to proceeding with the application, the ICEC Secretary shall liaise with the applicant PCB in an attempt to resolve them. Where issues cannot be resolved the application fee, which has been set to cover the costs associated with the review and processing of the application, will not be refunded.

When a certification body wishes to renew or extend the scope of its ICNDT certificate of conformity, the process to be followed is similar to that for the initial certificate of conformity. See 5.7 below for further details.

5.3 Audit Preparation

On confirmation of the eligibility the ICEC Secretary will consult with the ICEC Chair and appoint an ICNDT Approved Lead Assessor, informing the applicant of this appointment. When selecting an assessor, account shall be taken of the first language of the applicant organisation, and any possible conflict of interest of the assessor related to the applicant.

Where a remote or hybrid audit is required this shall be confirmed during this planning stage.

Where warranted by the scope and extent of the assessment and in consultation with the proposed ICNDT Lead Assessor, one or more ICNDT Support Assessors may also be selected from the ICNDT register of Approved Assessors.

Note 2. The selection criteria for ICNDT Assessors are set out in Appendix A.

The applicant PCB shall have the right to reject any of the assessment team members assigned by the ICNDT but shall provide written justification for rejection. Any second nomination shall be

accepted.

An ICNDT Lead Assessor, who is fully responsible for liaison with the applicant PCB and for generating all documents relating to the assessment procedure, shall carry out an initial desk-top review of the applicant's quality management system documentation. In carrying out this review, and for the remainder of the assessment, the ICNDT Lead Assessor and any ICNDT Support Assessors shall make use of an audit check list provided by the ICEC Secretary.

On the basis of this document review (which shall be recorded), the ICNDT Lead Assessor will form an initial opinion as to the extent that the proposed systems and procedures meet the applicable scope. The ICNDT Lead Assessor shall notify the applicant PCB of any ambiguities or required elements that are not addressed, or that are addressed incorrectly. The application will not be processed further until these matters have been addressed to the satisfaction of the ICNDT Lead Assessor.

Note 3. The ICEC Secretary shall advise the ICNDT Lead Assessor of the time allowed for this review. If the ICNDT Lead Assessor cannot complete the review within that time they shall advise the ICEC Secretary either giving an estimate of the additional time required or stating that the applicant's quality systems are not an adequate basis for carrying out a conformity assessment. The ICEC Secretary will then contact the applicant giving them the option of either paying an additional fee or of withdrawing the application.

If it is agreed that the assessment should continue, the ICNDT Lead Assessor shall provide the ICEC Secretary with an estimate of the time required (in man-days or man-hours, and including the time taken for the desk-top review) and the travelling and subsistence costs in order to carry out the compliance assessment. (It is noted that where there are governmental travel restrictions apply there will be no travel and subsistence expenses). This should include recommendations for and the costs of any Support Assessors. Guidance on the time required for assessment is given in Appendix B.

Note 4. The estimate of time and expenses will not be binding but should be sufficiently accurate to allow the ICEC Secretary to advise the PCB of the likely cost of the assessment.

At this point the ICEC Secretary shall arrange for the applicant PCB to be invoiced for the assessment charge (see 6.2 below). When this has been paid the ICEC Secretary shall authorise the ICNDT Lead Assessor to continue with the process.

The ICNDT Lead Assessor shall then contact the applicant to establish a mutually agreeable date for the mandatory on-site assessment, ensuring that the current quality documentation is on-hand, and shall publish an audit program not later than 14 days prior to the agreed date (to be sent to the applicant PCB, the ICNDT Support Assessor(s) and the ICEC Secretary).

Note 5. Where possible, the Applicant Certification Body shall assist the ICNDT Lead Assessor by providing advice on suitable arrangements for travel and accommodation. But this shall in no way compromise the independence of the Assessor(s).

5.4 Audit Procedure

Within in the agreed scope, the purpose of the assessment covers, but is not limited to, two main areas:

- To determine the suitability of the general administration of the organisation in respect of the quality management system, procedures, records, security arrangements, facilities, infrastructure, impartiality and management structure;
- To carry out a technical assessment of the organisation with regard to procedures for examination, decision making and certification, and examination specimens, equipment and examination staff qualifications in the particular qualification examination(s) which are the subject(s) of the application.
- In the first instance all assessments shall be undertaken face to face. Where there are governmental travel restrictions preventing face to face assessments, the assessments may be held via ICEC approved digital means that would facilitate the exact same rigor and compliance to the relevant standards as would a physical site assessment.
- The cost of providing the requested documents is to rest with the auditee.
- Relevant records and documents required as part of the assessment process may be submitted via secure electronic means agreed upon by both the audit team and auditee. In most cases assessments may be performed via a hybrid approach where physical presence and approved electronic platforms may be utilized to complete the assessment without reducing any of the assessment requirements or criteria.
- All relevant documents shall be copied to the ICEC for storage in the ICEC archive.

5.4.1 Introductory Meeting

The assessment will begin with an introductory meeting between the assessment team and representatives of the Certification Body. At this meeting the ICNDT Lead Assessor will stress that any and all materials and facilities reviewed will remain confidential to ICNDT and the applicant. The assessor will then introduce the assessment team (where there are one or more ICNDT Support Assessors) and confirm pre-arranged details of the audit programme, including the details of reporting and emphasizing the fact that findings are only categorised as non-conformances where there is a clear non-conformity with the applicable criteria. Arrangements will be made for a member of the PCB staff to accompany the assessor(s) during the assessment in order to confirm the correctness of written findings.

The assessment shall include witnessing the conduct of written and practical qualification examination(s).

5.4.2 **Recording Findings of the Assessment**

Each assessor will review the activities and/or areas of operations to which they are assigned. Findings of apparent failure of arrangements to comply with the PCB's quality management system or with the requirements of applicable criteria shall be recorded on Detail Report forms. These shall be the objective evidence upon which the ICNDT Lead Assessor bases their recommendations to the ICNDT.

A Detail Report Form shall be completed by the assessor at the time of the finding and witnessed by the accompanying PCB representative. The signature by the PCB representative is required to verify the factual nature of the finding. There is no attempt to designate the category of any finding at this time.

The information recorded on the detail report form will contain the following:

- Date and type of assessment;
- Name and location of assessed organisation;
- Reference to the criterion against which the report is raised;
- The particular activity or area of operation concerned;

- Any documents or records involved, including serial numbers etc.;
- A record of the finding (usually phrased in the precise words used in the applicable criteria);
- The name of the person with whom the matter was discussed;
- The signatures of the assessor and the PCB representative.

5.4.3 Preparation of Summary Report

After the ICNDT Assessors have completed their individual assignments, they will hold a private meeting to co-ordinate the assessment findings. Prior to presenting findings to the PCB management, the Assessment Team (ICNDT Lead and Support Assessors) shall categorise findings as **Non-conformance** or **Observation**. These are defined thus:

- **Non-conformances** require mandatory improvement action within a defined timescale (which could be immediate or prior to the issue of an ICNDT certificate of conformity).
Examples would be:
 - Lack of a documented internal audit or management review procedure;
 - Inadequate stock of suitable practical test specimens or serviceable NDT equipment;
 - Absence of a satisfactory system for security of examination material(s) or records.
- **Observations** may be raised for an isolated failure to comply with requirements, and would normally require non-urgent corrective or preventive action to be taken. **Examples** would be:
 - A single occurrence of the examination questions set for a candidate not recorded;
 - Failure to correct a non-conformance within the timescale set by the PCB's internal audit.

The ICNDT Lead Assessor will prepare a Summary Report with the agreement and bearing the signatures of all Assessors showing the categorisation of the findings into **Non-conformances** or **Observations**. The Summary Report will not reiterate statements on the detail reports but should present an overall impression of the PCB.

5.4.4 Final Meeting

A Final Meeting shall be held at which the ICNDT Lead Assessor and the assessment team will present the Summary Report to the PCB representatives. The ICNDT Lead Assessor shall emphasise that the assessment has not necessarily covered every aspect of the requirements and, therefore,

where no non-conformances were reported it does not follow that none exist.

The PCB authorised representative shall indicate the intended corrective actions for each non-conformance and propose the latest date for completion of such actions.

The ICNDT Lead Assessor and the PCB authorised representative shall agree on a time scale for correction of all non-conformances, if applicable. The PCB shall be provided with copies of the detail reports and the Summary Report.

5.5 Final Report and Recommendation

The ICNDT Lead Assessor shall submit a Final Report to the ICEC Secretary. This shall comprise the Summary Report (see 5.4.3), a list of the intended corrective actions and timescales agreed at the

final meeting (see 5.4.4) and a recommendation on the issue or otherwise of a certificate of conformity.

In general, there are four possible cases:

- A. No corrective actions are required, or any necessary corrective actions were taken at the time of the assessment.

The ICNDT Lead Assessor shall submit Detail and Summary reports, plus audit programme and checklists to the ICEC Secretary, with a recommendation to issue a Certificate of Conformity.

- B. A time scale has been agreed for all corrective actions to be completed and it will be acceptable for the evidence of such completion to be provided to the ICNDT Lead Assessor by email.

The ICNDT Lead Assessor shall submit a copy of the Summary report to the ICEC Secretary and provide an estimate of the time required (in man-days or man-hours) to review the evidence for completion of corrective actions (see Note 6 below). The original Detail Reports and checklists will be retained until the PCB provides satisfactory evidence of correction of the non-conformances, upon receipt of which the ICNDT Lead Assessor shall submit the signed-off Detail Reports and checklists to the ICEC Secretary, with a recommendation to issue a Certificate of Conformity.

- C. A time scale has been agreed for all corrective actions to be completed and some or all of the non-conformances are of a level where a follow-up assessment visit will be required to provide evidence of completion.

The ICNDT Lead Assessor shall submit a copy of the Summary Report to the ICEC Secretary and provide an estimate of the time required (in man-days or man-hours) and the travelling and subsistence costs in order to carry out the follow-up assessment visit (see Note 6 below). A follow-up assessment will be arranged by the ICNDT Lead Assessor, with the help of the ICNDT Support Assessor(s) when required. Upon satisfactory completion of this assessment, the ICNDT Lead Assessor shall submit a further Summary Report together with completed Detail Reports and checklists to the ICEC Secretary, with a recommendation to issue a Certificate of Conformity.

-
- D. It has not been possible to agree a corrective action programme.
The ICNDT Lead Assessor shall submit all documents to the ICEC Secretary with a recommendation not to issue a Certificate of Conformity.

For cases B and C above, the ICNDT Lead Assessor will immediately advise the ICEC Secretary if it appears that the agreed program of corrective action is not likely to achieve its aims. The ICEC Secretary, in consultation with the ICEC, will advise on the further course of action.

Note 6. The estimates of time and expenses in cases B and C will not be binding but should be sufficiently accurate to allow the ICEC Secretary to advise the PCB of any additional costs needed to complete the assessment.

5.6 Issue of Certificate of Conformity

Upon receipt of the ICNDT Lead Assessor's report and recommendation, the ICEC Secretary shall review the documentation for compliance with the applicable requirements. If all is in order, the final report and recommendation (together with the full audit documentation) shall be submitted to the ICEC. After due examination of these documents, the ICEC shall decide on the issue of an ICNDT certificate of conformity to the PCB concerned (cases A, B and C) or advise the PCB that it has been decided not to issue a certificate of conformity (case D). Where a certificate of conformity is issued, ICNDT may reserve the right to carry out surveillance audits at the cost of the applicant during the period of validity.

The formal notification of conformity, which is subject to payment in full of any fees due, will be in the form of an ICNDT Certificate of Conformity with details of the scope of conformity and any limitations. The certificate will detail the standards and criteria complied with, the issue and expiry dates, and bear the signature of an authorised representative of the ICNDT. The Certificate of Conformity will be issued when all fees are paid (see 6 below). An example certificate is shown in Figure 1.

All audit documentation will be retained by the ICNDT for a minimum period of seven years.

5.7 Renewal and/or Extension of Scope

The ICNDT certificate of conformity is valid for 3 years from the date of issue or until (a) an application is received for an extension of scope or (b) issues are identified during a surveillance audit. Validity of the certificate is subject to continuing compliance with the applicable standards and specifications and the ICNDT Code of Practice for NDT Personnel Certification Bodies – see OP19.

Approximately 90 days prior to the expiry of the ICNDT certificate of conformity, the PCB seeking renewal will apply to the ICEC Secretary using the same form as for initial applications. The process of reviewing the application and supporting materials, selection and appointment of assessors and the conduct of the renewal assessment will be identical to that for initial assessment.

PCBs wishing to extend the scope of their certificate of conformity will be assessed to ensure that they have appropriately qualified examiners, sufficient specimens containing relevant defects, sufficient appropriate NDT equipment and examination questions to conduct examinations for the expected throughput of candidates. The quality system will not be re-assessed except insofar as control of personnel, specimen security, master specimen reports, equipment maintenance and calibration and generation and security of questions is concerned. All aspects of the additional certificate of conformity must comply with the requirements of the applicable standard(s).

6 Fees

Fees are set by the ICNDT Executive Committee and confirmed at the annual meeting of ICNDT. The current fees for the Compliance Assessment service are available on the ICNDT website.

Fees and charges published on the website are shown in **bold** in the following sub-sections.

Note 7. Certain of the fees are necessarily based on estimates, as described below. The ICEC Secretary will keep the PCB informed in the event of any significant departures from the estimated costs.

6.1 Application Fee

The **Application Fee** is payable initially, at three yearly reassessment and for applications to extend scope. This covers the costs associated with the review and processing of the application (See 5.2 above) and is not refundable in the event that eligibility for a PCB compliance assessment cannot be established. Note that ICNDT reserve the right to request an addition to the application fee if an excessive time is required for the review (see 5.3 above).

6.2 Assessment Charge

The assessment charge is payable before the assessment. This is estimated following the preliminary desk-top review. The charge is based on the **Assessment Charge per Man-day** and the ICNDT Lead Assessor's estimate of the time required for the assessment (including the desk-top review) – see Appendix B for guidance. The assessment charge will also include, (where applicable), an estimate of the assessor's travel, subsistence and accommodation expenses.

A further assessment charge may be necessary to cover the time required by the ICNDT Lead Assessor in reviewing the resolution of corrective actions. The PCB will be provided with an estimate of the cost and the final cost will be recovered as part of the balancing payment (see 6.3 below).

6.3 Balancing Payment

A balancing payment is payable at the end of the assessment and before issue of the Certificate of Conformity. This will reconcile any differences between estimates of assessors' time and expenses and the actual values.

6.4 Certification Fee

The **Certification Fee** is payable on successful completion of the assessment and before the Certificate of Conformity is awarded.

7 Completion of MRA Schedule 2 Process

As noted above, a conformity assessment will only be carried out in support of an application for registration under Schedule 2 of the ICNDT MRA. If the OP20 process set out here is successful, this will result also in registration under the MRA, as set out in OP19.

8 Complaints and Appeals

The procedure to be followed in the event of complaints or appeals is set out in OP24, available on the ICNDT website or from the ICEC Secretary.

Appendix A: Selection Criteria for Approving ICNDT Assessors

ICNDT assessment teams shall comprise a Lead Assessor supported, where necessary, by one or more Support Assessors such that the team qualifications are appropriate to the audit in hand. At least one member of the ICNDT Assessment Team shall hold valid ISO 9712 Level 3 certification relevant to the scope of the audit in hand.

The register of available Assessors shall be confirmed by the ICNDT Certification Executive Committee (ICEC) and shall be maintained by the ICEC Secretary. The Register shall state for each individual whether he or she may be appointed Lead Assessor or Support Assessor.

All ICNDT registered Assessors shall have satisfactorily completed ICNDT recognised management system assessor training, and shall have verifiable experience in the conduct of quality management systems and NDT technical audits. ICNDT appointed Lead Assessors shall be familiar with the ICNDT documentation related to the assessment and PCB approval process. This may be achieved by:

- Lead Assessor workshops or briefing sessions conducted by an approved ICNDT Lead Assessor;
- A Support Assessor assisting an ICNDT Lead Assessor during an assessment.

The Lead Assessor will be appointed directly by the ICEC Secretary for the specific assessment, while Support Assessors may be selected by the Lead Assessor and confirmed by the ICEC Secretary from the register of qualified Assessors maintained by the ICNDT.

It is highly desirable that at least one member of the ICNDT Assessment Team be fluent in the first language of the assessed NDT PCB.

All ICNDT Assessors are bound by conditions of confidentiality, having signed statements of acceptance of conditions of appointment, including the preservation of impartiality and the freedom from vested interests.

Any contract between ICNDT and an Assessor, whether verbal or in writing, shall be a contract subject to the jurisdiction of Austria.

Appendix B: Guidance on the Time Required for Assessment

Man days spent on initial and renewal assessment will vary, as will the audit team strength, according to the scope of certificate of conformity held or applied for, and the size, complexity and geographical dispersal of the certification scheme. The assessment team will be selected to combine quality system experience with commensurate levels of NDT and industry sector expertise, as well as fluency in the first language used by the PCB.

The following is an EXAMPLE of a typical time on assessment for an ICNDT PCB Certificate of conformity audit.

Task	Man days
Preparation (documented system familiarisation)	1
Travel (depending on origin and destination)	1-2
Time on assessment (depends on scope)	4-5
Reporting	1
Total	7-9

The following is an EXAMPLE of the estimated time for extension to scope or triennial re-assessment.

Task	Man days
Preparation (familiarisation)	½
Travel (depending on origin and destination)	1-2
Time on assessment	1-2
Reporting	½
Total	3-5



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

ICNDT Multilateral Recognition Agreement (MRA) for Personnel Certification in NDT Certificate of Registration

<Name of PCB>

The above named NDT Personnel Certification Body (PCB) has satisfied all of the eligibility criteria for registration under the ICNDT Multilateral Recognition Agreement (MRA) for PCBs, including having undertaken to abide by the ICNDT Code of Practice, and has been nominated and accepted for registration within the terms of the Agreement signed by those Members of the International Committee for NDT (ICNDT) listed in Schedule 1 to the Agreement.

The Personnel Certification Body may therefore announce that holders of its certificates issued under these arrangements are certificated by a PCB which is registered by the ICNDT as meeting the requirements of the applicable Standards (including ISO 9712:2012 and ISO/IEC 17024:2012) and Technical Documents referenced in the schedule of conformity (scope) issued by the accreditor and/or the ICNDT.

A copy of the MRA, including a list of the signatories and a schedule of those certification bodies satisfying the criteria for registration, is available at www.icndt.org and from all parties that are signatory to the Agreement.

All signatories to the Agreement, and all PCBs registered under the Agreement, are bound to promote the recognition and acceptance of the certificates issued by all other ICNDT Registered NDT Personnel Certification Bodies.

Signed for ICNDT

Initial registration date:	<date>
This certificate number:	<#>
Issue date:	<date>
Expiry date:	<date>

Chairman

Disclaimer: ICNDT accepts no liability for the use of certification awarded by PCB registered under the MRA. In accordance with ISO 9712 the responsibility for the quality of NDT rests with the employer of the certificated person.
Jurisdiction: The ICNDT Multilateral Recognition Agreement is subject to the jurisdiction of Austria.



ICNDT GENERAL ASSEMBLY & 43th MEETING 2022, June 15th MEMBERSHIP REPORT

11 am London UK time

07 am Brazil time

João Conte



Membership Committee

Chair: João Conte

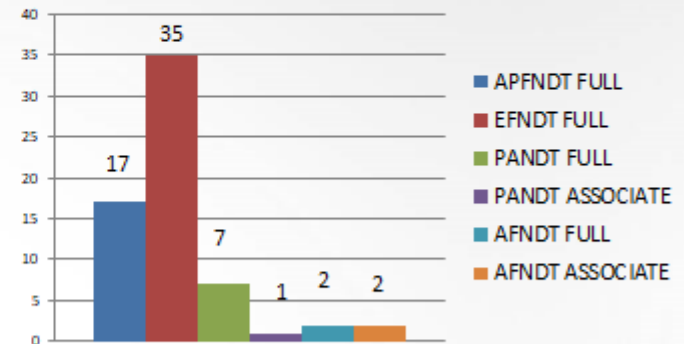
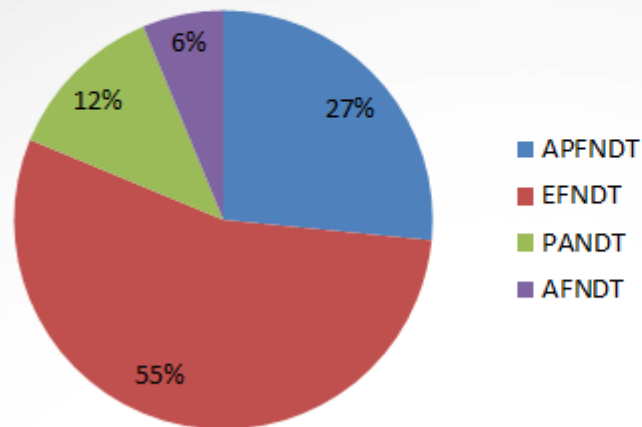
Members:

- Alexander Mullin;
- David Gilbert;
- Ferid Herelli;
- Les Dick;
- Purschke Matthias (to be replaced) ;
- Shohei Ooka



ICNDT Membership

Current status: 64 organizations



Status: 2021



The World Organisation for NDT

Challenges:

- Covid 19 pandemic
- Countries wishing to oficialize a Society but facing several difficulties (e.g. ACHISEND – Chile; ASENDEC – Ecuador; ASOVEND – Venezuela; CONENCA – Dominican Republic)
- Economic difficulty to pay the annual (joining) fee; mainly by the smaller societies



ICNDT

The World Organisation for NDT

NEW MEMBER:

- INDT NIGERIA

Regional Report for the ICNDT General Assembly

APFNDT Report

Asia-Pacific Federation for Non-Destructive Testing

www.apfndt.org

Dr. Norikazu Ooka

President of APFNDT

15 June, 2022 Web Meeting

Members of APFNDT

- Primary Full Members, 14 societies
- Secondary Full Members, 3 societies
- Regional Representative Group One - Western Asia, Central Asia, South Asia- 2 members
- Regional Representative Group Two - East Asia, South East Asia- 4 members
- Regional Representative Group Three - Pacific, Oceania 2 members

Members of APFNDT

Full Members, 17 Societies (2022)
Including Secondary Full Members

AINDT - The Australian Institute for Non Destructive Testing

ASNT - The American Society for NDT

AUTRI - Asosiasi Uji Tak Rusak Indonesia

BSNDT - The Bangladesh Society for Non Destructive Testing

ChSNDT - The Chinese Society for Non Destructive Testing

CINDE - The Canadian Institute for Non-Destructive Evaluation

ISNT - The Indian Society for Non-Destructive Testing

JSNDI - The Japanese Society for Non-Destructive Inspection

KSNT - The Korean Society for Nondestructive Testing

*Full Members

*Secondary Full Members

Members of APFNDT

(Continued)

MSNDT - Mongolian Society for Non Destructive Testing

MSNT - The Malaysian Society of Non Destructive Testing

NDTSS - Non-Destructive Testing Society (Singapore)

NZNDTA - New Zealand Nondestructive Testing Association Inc.

PSNT - Philippine Society for Nondestructive Testing, Inc.

RSNTTD - The Russian Society for Non Destructive Testing and
Technical Diagnostics

SNTCT - The Society for Nondestructive Testing and Certification of
Taiwan

SNDT - Society for Non Destructive Testing, Sri Lanka

*Full Members

*Secondary Full Members

Potential APFNDT Members

IRNDT - Iranian Society for Non-Destructive Testing

PASNT - Pakistan Society for Non-Destructive Testing

TSNT - Thai Society for Non-Destructive Testing

AZNDT - Azerbaijan Society for Non-Destructive Testing

VANDT - Vietnam Society for Non-Destructive Testing

(Under Formation) - KAOFD Kazakhstan Association of Flaw Detection

(Under Formation) - Myanmar

APFNDT Report

General Business

- The online membership system is still being built, so invoices for APFNDT/ICNDT membership were sent out in February, with most members having paid.
- The APFNDT Executive Committee (AEC) also plans to hold online meetings throughout the year and if possible in person meetings at the WCNDT or regional events. Of course this will depend on the ongoing COVID-19 situation.

APFNDT Report

General Business

- Promote other organizations, such as ISO/TC 135 standardization activities, IAEA's NDT projects and continue working with the Asian Welding Federation (AWF) in regards to the NDT/Welding field.
- The 16th APCNDT will be held February 28th to March 3rd, 2023 in Melbourne, Australia. All reports from the organizer, AINDT, indicate that the event preparation is progressing well.

Report of APFNDT

Main Task Group Activities for APFNDT

TG 1 Membership

TG 2 APFNDT Journal

TG 3 Communications and website

TG 4 Education and Training

TG 5 Certification

TG 6 Standards

TG 7 NDE 4.0 (Formed in 2020)

APFNDT Task Group Status

TG 1 Membership: Kevin Smith (ASNT)

- Finalizing new Membership Operation Procedure for AEC/Board approval.
- Developing a membership financial support system for current and new members.

TG 2 Journal: Prof. Jung-Ryul Lee (KSNT)

- Working to develop an approved project to collect technical/academic NDT articles from the Asia-Pacific region.

TG 3 Communications: Mr. Shohei Ooka (JSNDI)

- Developing the online member system.
- Publishing and distributing the APFNDT newsletter.
- Facilitating online meetings for Task Groups.

TG 4 Education: Dr. B. Venkatraman (ISNT)

- Working to convert the, “Anniversary of Radiation” into a TG activity.

TG 5 Certification: Paul Grosser (AINDT)

- Progress made in the latest edition of ISO 9712:2021 which has been released.

TG 6 Standards: Dr. Takamasa Ogata (JSNDI)

- Review of existing ISO standards.
- Planned distribution of ISO 9712 to members based on results from last years survey.

TG 7 NDE 4.0: Pranay Wadyalkar (AINDT)

- Holding regularly scheduled online meetings to disseminate NDE 4.0 information from various groups
- Focused discussions on the ICNDT NDE 4.0 Roadmap.

APFNDT Report

APFNDT Task Group Activities

- TG 1: Membership - developing a new Operation Procedure for Membership. In addition, a program to help current members and potential new members financially through regional support is being developed.
- TG 3: Communications, continues its work with ICNDT WG 4 and will be able to implement the long awaited online system. Also, has released the newest edition of the APFNDT newsletter in January with plans to distribute more throughout the year.

APFNDT Report

APFNDT Task Group Activities

- TG 6: Standards distributed a survey to gain insight into the Asia-Pacific region with the hope of using this valuable information for future projects and to distribute standards to APFNDT Members.
- TG 7: NDE 4.0 has been holding online meetings at regular intervals with the next scheduled for May 16th, 2022. Due to the robust nature of the subject, recruitment of various experts is ongoing.

APFNDT Report

APFNDT and AWF

- The 75th IIW Annual Assembly and international Conference will be held in Tokyo, Japan on 16 – 22 July, 2022 . Because an MOU was signed between the Asian Welding Federation (AWF) President Mr. Sze Thiam Siong and APFNDT President Dr. Norikazu Ooka in 2019, a meeting will be held between to further cooperation.

APFNDT Report

NDT Events in APFNDT

Year	Event	Date	Society
2022	Malaysia International NDT Conference and Exhibition 2022 (MINDTCE' 22)	August 16 -17	MSNT
	7th US-Japan NDT Symposium	August 23 - 26	ASNT/ JSNDI
	3 rd World Congress on Condition Monitoring (3 rd WCCM)	October 25 – 28	ChSNDT
	Singapore International Non-Destructive Conference and Exhibition (SINCE 2022)	November 7 - 8	NDTSS
2023	The 16th Asia Pacific Conference for Non-Destructive Testing (APCNDT 2023), Melbourne	February 28 - March 3	AINDT
2024	The 20th World Conference on Non-Destructive Testing (WCNDT 2020)	May 27 - 31	KSNT
2026	The 17th Asia Pacific Conference for Non-Destructive Testing (APCNDT 2026), Hawaii	May 11 - 15	ASNT

APFNDT Meeting Schedule

(AEC, Board Meeting, General Assembly)

Year	Event	Place	AEC	Board Meeting	General Assembly
2022	APFNDT Meetings	Online	Yes	Yes	Yes
	Singapore International Non-Destructive Conference and Exhibition (SINCE 2022)	Singapore	Yes	No	No
2023	16th APCNDT	Melbourne	Yes	Yes	Yes
2024	WCNDT 2024	Korea, Incheon	Yes	Yes	No
2026	17th APCNDT	Hawaii	Yes	Yes	Yes



Thank you for your kind attention.

EFNDT REPORT TO ICNDT GA

New challenge for NDT world through EFNDT

MEMBERS OF EFNDT

Country	Society	President
Austria	Austrian Society for NDT – ÖGfZP	Wolfgang Schützenhöfer
Belgium	Belgian Association for NDT – BANT	Aldo Gressani
Bulgaria	Bulgarian Society for NDT – BGSNDT	
Croatia	Croatian Society of NDT – CrSNDT	Zoran Markešić
Czech Republic	Czech Society for NDT – CNDT	Mr. Libor Topolar
Denmark	Danish Society for NDT	Bo Bosson
Finland	Finnish Society for NDT	Mr Juha Toivonen
France	French confederation NDT - COFREND	Ettiene Martin
Germany	German Society for NDT - DGZfP	Dr.Ing. Anton Erhard
Greece	Hellenic Society of NDT - HSNT	Antonatos Alexandros
Hungary	Hungarian Association for NDT - MAROVISZ	Prof. Dr. Peter Trampus
Italy	Italian Society for NDT - AIPnD	Ezio Tuberosa
Latvia	Latvian Society for NDT	
Lithuania	Lithuanian Society for NDT and Technical Diagnostics - LNBD	Prof. Rymantas Jonas Kazys
Moldova	Moldavian Society on NDT and Technical Diagnostics	Diagnostics
Netherlands	Dutch Association for Quality, Inspection and NDT Techniques - KINT	Mr. Andre Blaauw
Norway	Norwegian Society for NDT- NSNDT	Rune Kristiansen
Poland	Polish Society for NondestructiveTesting and Technical Diagnostics - SIMP	Dr. eng. Tomasz Chady
Portugal	Associação de Laboratórios Acreditados de Portugal - RELACRE	Dr. Bento Alves
Republic of Belarus	Belorussian Association for NDT and Technical Diagnostic / BANDT	Prof Dr Valeriy Vengrinovich
Romania	Romanian Association of NDT - ARoEND	George Nicolescu
Russia	The Russian Society for NDT and Technical Diagnostic- RSNTTD	Vladimir Syasko
Serbia	Serbian Society of Nondestructive Testing - SDIBR	Mr Mladen Mladenovic VP
Slovakia	Slovak Society for NDT- SSNDT	Ing. Erich Eckhardt
Slovenia	SSNDT-Slovenian Society for NDT	Prof. Dr. Janez Grum
Spain	Asociacion Espanola de END - AEND	Mr Emilio Gonzalez Alvarez
Sweden	Swedish Society for NDT - FOP	Mr Johan Muhren
Switzerland	Swiss Society for NDT - SGZP	Peter Fisch
Turkey	The Turkish Society for NDT - Turk NDT	Prof Dr Cemil Hakan Gür
UK	The British Institute of NDT - BINDT	Dr. Iain Baillie

BoD Members

President	Fermin Gomez Fraile	Spain
Vice President	Alexander Mullin	Russia
	Frederic Schaditzki	France
	Peter Fisch	Switzerland
	Anton Erhard	Germany
	David Gilbert	UK
	Michele Carboni	Italy
	Pavel Mazal	Czech Republic
	Bento Alves	Portugal
Co-opted Non-voting members		
	Gerhard Aufricht	Austria
Treasurer	René Klieber	Switzerland
Ex-Officio Non-voting members		
Past president	Peter Trampus	Hungary
Auditor	Casper Wassink	Netherlands
General Secretary	Emilio Romero	Spain
President ECNDT 2023	Bento Alves	Portugal

1. The EFNDT has been working in this very complicate times and follow working in different subjects
2. Since 2020 the EFNDT has travelled a complicated path with 4 situations that have required extraordinary actions
3. After the first three situations Pandemic, Brexit, Modification of Statutes, the EFNDT achieved a stabilisation and a new path of growth.
4. The fourth situation, perhaps is the most complicated and that is currently developing and that is the Russia-Ukraine situation
5. Even so, the EFNDT continues to work, particularly in several of its WG and Forums, hoping for a new stabilisation that will allow us to reach an optimal level of effectiveness and achieve new opportunities.
6. The EFNDT has updated its statutes to include the possible actions and consequences of the COVID pandemic and the possible ones that may appear as a result of extraordinary conditions (e.x. wars, etc.)
7. The EFNDT has updated its own financial operations that were stagnant due to the pandemic and the choice of the new BoD. It is pending to conclude an agreement with the TIC-CEOC to provide administrative and operational support with the bank and the Belgian authorities.
8. The EFNDT needs to take a position in line with the ICNDT on the requests requested by Poland (PTBNiDT SIMP) on the expulsion of Russia and Belarus (the UE has suspended the Rusia and Bielorrussia of all of projects)
9. During the year 2021 until today the EFNDT has had 8 BoD and 2 GA

The 10 Working Groups and three Forums of EFNDT are still working through virtual meetings and conferences. These ten groups and forums are as follows:

- I WG1 – Education
- I WG2 – Radiation Protection and ADR
- I WG3 – Condition Monitoring
- I WG4 – Laboratory Accreditation
- I WG5 – NDT for Public Safety and Security
- I WG6 – NDT on Additive Manufacturing
- I WG7 – Failure Analysis (Risk Analysis)
- I WG8 – Human Factors
- I WG9 – Ethics
- I WG10 – NDT 4.0
- I Forum for European National Aerospace NDT Boards (NANDTBs)
- I Forum for Railway Industries
- I Forum for Marine.

Additionally, a Working Group with the European Welding Federation (EWF) is still working to complete the European NDT Engineer proposal.

WG1 EDUCATION AND RESEARCH (Fermin Gómez /Alexander Mullin)	WG6 ADDITIVE MANUFACTURING (M.PELKNER)
WG2 RADIATION PROTECTION AND ADR (D.GILBERT)	WG7 RISK ANALYSIS (FERMIN GOMEZ)
WG3 CONDITION MONITORING (PAVEL MAZAL)	WG8 HUMAN FACTORS (ETIENNE MARTIN)
WG4 LABORATORY ACREDITATION (B.ALVES)	WG9 ETHICS (MICHELLE CARBONI)
WG5 NDT FOR PUBLIC SAFETY AND SECURITY (RODOLFO RODRIGUEZ)	WG10 NDE 4.0 (J VRANA)

FORUMS AND SPECIAL PROJECTS

FORUM AEROSPACE	HEMULTH HOLLER
FORUM RAILWAYS	ARNIM PERREY
FORUM MARINE	LUIS GARCIA
EUROPEAN NDE ENGINEER PROJECT	BENTO ALVES

European NDE Engineer Project

- The EWF-EFNDT joint committee has had 5 meetings in the 2020-2021 period

RIMA

- As we indicated in previous reports and ICNDT knows, RIMA is a 4-year H2020 project aiming to establish a network of 13 Digital Innovation Hubs (DIH) on robotics sharing best practices and providing services to facilitate uptake of I&M technologies.
- RIMA network encompasses leading research organizations supporting one DIH per region aligned with regional policies and industry sectors and sectorial associations which will make a bridge with end users and industries
- EFNDT has been sent a several letters of our Associations to participate in this project , but the answer has not been, until now, very important

DICE

- The EFNDT is participating in a new project, funded by the EU within the HORIZON EUROPE Programme. This project is part of the European Open Science Cloud (EOSC) portal and consists of DATA INFRASTRUCTURE CAPACITY FOR EOSC
- The function of the EFNDT will be to disseminate the project among all the European Partnerships.

Other matters

- The EFNDT has been hold the general assembly this year divided into two parts.
- On 10th June by internet, the first part to approve the financial results and the second part in December 2021 and in it a new BoD was elected, whose mandate extends until the ECNDT in 2023 in Lisbon

EFNDT has updated its statute. At the moment and after its translation into French, it is being sent to a Belgian lawyer for legal review and sent to the Belgian authorities.

NDE 4.0

- The WG10 has held 2 meetings and the NDE 4.0 has made an International conference called by the DGZFP and with the support of the ICNDT
- WG 10 has attended the AEROEND 4.0 Congress in Spain where it has given a conference

Brexit

- The EFNDT has had 2 extraordinary meetings to analyze the situation due to Brexit in relation to the European Pressure Equipment Directive 2014 /68/EU.
 - A harmonization is sought within the EFNDT for the recognition of the certificates issued by the PCN / BINDT.
- Finally the PCN/BINDT certificates have been recognized by one Irish organization.

ECNDT

The next ECNDT will be held in July 2023
This new date has been approved by the BoD of the EFNDT

The financial situation of EFNDT is considered stable.

- Fees paid to ICNDT on 3/16/2022
- Some national associations have been suspended due to non-payment since 2017.
 - KAZAKSTAN SOCIETY FOR NDT
 - LATVIAN SOCIETY FOR NDT (LNTB)
 - MOLDAVIAN SOCIETY ON NDT AND TECHNICAL DIAGNOSTICS (AN NDT)
 - BELORUSSIAN ASSOCIATION FOR NDT AND TECHNICAL DIAGNOSTIC (BANDT). Pending suspension since it has not paid for the years 2017, 2019, 2020 and 2021
- Several payments are also pending from associated companies:
 - ISRAELI NATIONAL SOCIETY OF NDT (ISRANDT)
 - AUSTRALIAN INSTITUTE FOR NDT
 - ABENDI
 - KOREA
 - CHINESE SOCIETY FOR NON-DESTRUCTIVE TESTING (CHSNDT)
 - SOUTH AFRICAN INSTITUTE FOR NDT

END OF REPORT

Thanks on behalf of EFNDT

Questions?

ECNDT 2023 Status Report

- 15 June 2022



GENERAL MANAGEMENT & PLANNING

ACTIONS TAKEN – 2022

✓ Re-opening of Online Services to new platform: Registrations & Abstracts

- . Recovering of submitted information (Registrations);
- . Resubmissions of Abstracts underway

✓ Website Update:

- . Updated Interactive floorplan
- . Updated sponsors Online Application
- . Updated Sponsors Logos
- . News section – uploaded content on: Save the Date, Cross promotion with DE Congress (Kassel), pics from Opening Ceremony
- . Related Events Menu: updated info from Melbourne and Berlin conferences



AIM Sponsorship collect

Date	Number booths total	sold	%
Dec 2021	131	34	26
8 june 2022		43	33
	Exhibition Area total (m2)		
Dec 2021	1800	635	35
8 june 2022		730	41
	Sponsorship collected (€)		
Dec 2021			69
8 june 2022			64

CONFIRMED SPONSORS FOR ECNDT 2023

Ether NDE (Shared sponsor & Exhibitor)
 Fujifilm Europe GmbH (&Exhibitor)
 Helling GmbH (&Exhibitor)
 Shanghai CHiNDT Systems & Services Co. Ltd (&Exhibitor)
 WayGate (Pending €)

CONFIRMED EXHIBITORS FOR ECNDT 2023

NDT Italiana SRL
 JME Ltd
 DÜRR NDT GmbH & Co. KG
 Sciaps inc.
 Cygnus instruments LTD
 MODSONIC INSTRUMENTS MFG CO PVT LTD
 LABINO AB
 PEAK NDT
 STATICE INNOVATION
 JIREH INDUSTRIES
 HEBEI ULISO TECH CO., LTD
 VISICONSLT X-RAY SYSTEMS & SOLUTIONS GMBH

NOVO DR
 XARION
 SOCOMATE
 GULMAY
 ELOP AS
 3E NDT
 GUIDED ULTRASONIC (England)
 TELEDYNE
 TRUEFLAW
 NOVOSOUND (Scotland) (Pending €)

VMI NDT (Pending €)
 OLYMPUS IBERIA
 LUKE NDT (Pending €)
 OSERIX
 THERMO FISHER (Pending €)
 FRAUNHOFER IKTS (Pending €)
 SONATEST (Pending €)
 CARERAY DIGITAL MEDICAL TEC. CO.LTD. (Pending €)

Promotion

- ✓ Refocusing on In-Person Events & Cross Promotion
- ✓ Updated ECNDT2023 Leaflet with Important Dates

DE National Congress – Kassel:

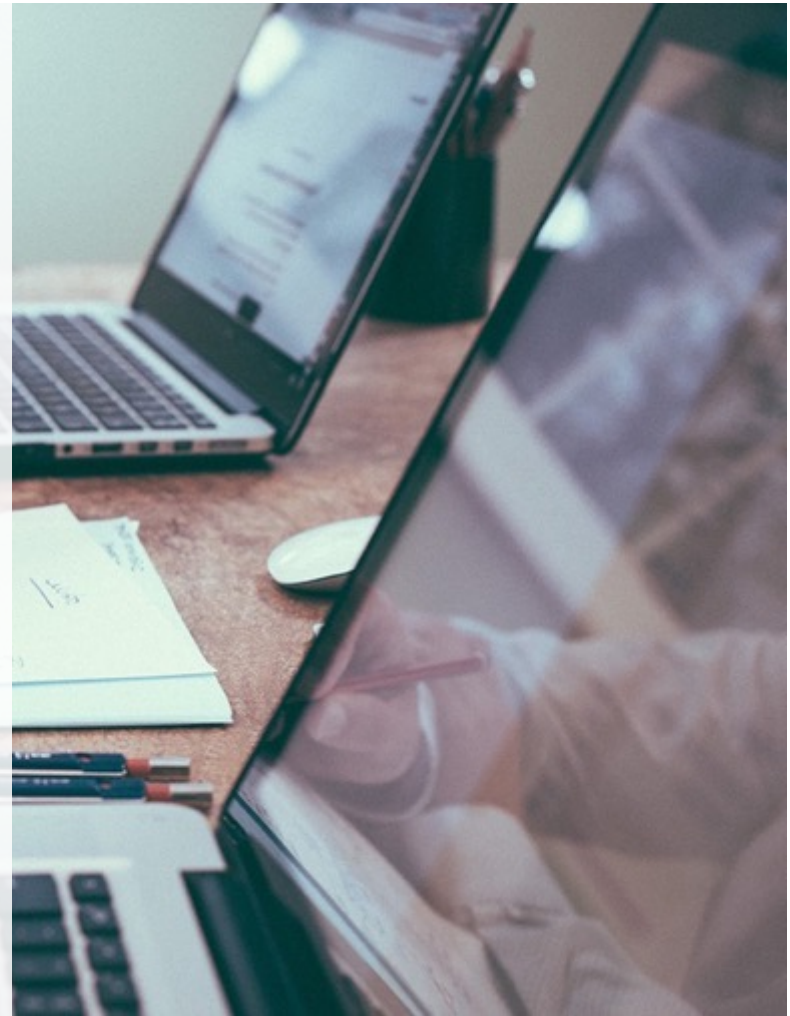
- Stand
- Roll Up
- Leaflets
- Speaking slot in Opening Ceremony



GENERAL MANAGEMENT & PLANNING

NEXT IMMEDIATE STEPS

- **Kick Off Social Media Campaign**
- **Media Toolkit available on website for all stakeholders**
- **Refocus on In-Person Events Promotion**
- **Focus on Abstracts Submission – DL: 31st July**
- **Papers Indexation**





Your International Partner for Congresses,
Events and Communication



The World Organisation for NDT

Regional Report from the African Federation of Non-Destructive Testing



**Compiled & presented by: Harold Jansen
AFNDT Executive Secretary**

Content

- **Membership**
- **Meetings**
- **Activities**
- **Strategic Plan**



The World Organisation for NDT

Membership

- **President :** Dr Sahaimi Kamal Morocco
Centre National de l'Energie des Sciences & des Techniques Nucléaires
- **Secretariat:** Harold Jansen South Africa
SAIW
- **Founding Members**
Algeria; Cameroon; Egypt; Ghana; Congo; Libya; Mauritius; South Africa; Tunisia;
Tanzania; Zambia
- **ICNDT Membership (Active):**
Egypt; South Africa
- **Signatories to Current Constitution (2014):**
Algeria; Angola; Cameroon; Egypt; Ethiopia; Ghana; Kenya; Libya; Mauritius; Morocco;
Nigeria; South Africa; Sudan; Tunisia; Uganda; Zambia; Zimbabwe
- **Country (Active) Representation:**
Cameroon; Kenya; Morocco; Nigeria; South Africa; Sudan; Tunisia;

Membership

■ Current membership:

54 Countries

All countries are included by default unless written confirmation of non-participation as a result of limited to no NDT activities within a country
(as per agreement during meeting dated 7 Dec 2021)

■ Sub-regions:

- ☐ **North Africa** **Tunisia**, Morocco, Algeria, Libya, Mauritania, Egypt
- ☐ **East Africa** **Sudan**, Burundi, Djibouti, Kenya, Rwanda, Ethiopia, Eritrea, Somalia, Uganda, South Sudan
- ☐ **Central Africa** **Cameroon**, the Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Sao Tomi and Principe, Gabon
- ☐ **West Africa** **Ghana**; Benin; Burkina Faso; Cape Verde; Gambia; Guinea; Guinea-Bissau; Ivory Coast; Liberia; Mali; Niger; Nigeria; Senegal; Sierra Leone, Togo
- ☐ **Southern Africa**
South Africa; Angola; Botswana; Lesotho; Madagascar; Malawi; Mali, Mauritius; Mozambique; Namibia; Seychelles; Swaziland; Union of Comoros; Tanzania; Zambia, Zimbabwe

Meetings

- | | | | |
|---|-------------------------|-------------------------|---|
| ■ | 7 December 2021 | AFNDT (11 Participants) | ICNDT; Cameroon, Nigeria, South Africa, Sudan |
| ■ | 16 December 2021 | AFNDT (12 Participants) | Kenya; Morocco, Nigeria, South Africa, Sudan, Tunisia |
| ■ | 20 December 2021 | AFRA + DMRE (SA) | Regional Project Concept discussion |
| ■ | 3 February 2022 | AFNDT (9 Participants) | Cameroon, Morocco, Nigeria, South Africa, Sudan |

Outcomes

- | | | |
|---|---------------------------------------|---|
| ■ | Final draft constitution | Pending adoption |
| ■ | AFNDT 'renewal' / rejuvenation | Agreement |
| ■ | Participation | Agreement |
| ■ | Membership & Communication | 54 countries & establish communication channels |
| ■ | Strategic plan | Concept pending funding |

Outstanding

- | | | |
|---|--|---------------------|
| ■ | Operating procedures | June 2022 |
| ■ | AGM & Election of dignitaries / representatives | July 2022 |
| ■ | Action plan, Activities & Website | July 2022 - ongoing |

Activities

■ IAEA - AFRA

- | | | |
|---|--------------------|-------------------------------------|
| <input type="checkbox"/> Triangular Project | IAEA, Cameroon, SA | Level 3 Workshop - Completed 2021 |
| <input type="checkbox"/> National Project | Cameroon | AQB & PCB establishment 2023 - 2026 |

■ Visits (2022)

- | | |
|---|---|
| <input type="checkbox"/> SAIW to Hydrac (Cameroon) | ATB renewal + AQB audit |
| <input type="checkbox"/> SAIW to Sudan | New ATB compliance audit |
| <input type="checkbox"/> IAEA - AFRA delegation to SAIW | 20 to 25 June 2022 |
| | Workshop + Regional project proposal discussion |

■ Website & Digital platforms

- ☐ A formal AFNDT Website is being developed and shall be linked to the ICNDT website once completed and approved by the AFNDT Board
- ☐ AFNDT LinkedIn group initiated
- ☐ META (Facebook) group to be initiated

■ Communication

- ☐ Database initiated with 63 e-mails

Strategic Plan

■ Objectives

- ❑ National NDT Liaison / NDT Society in 54 countries
- ❑ ICNDT MRA Schedule 1 signature
- ❑ At least 1 Approved Training Body per country
- ❑ Sustainable Personnel Certification Body (and Authorised Qualification Body) per country
- ❑ ICNDT MRA Schedule 2 registration – via National Accredited Body or ICEC OP 20 process
(Discourage the use of external accreditation bodies to ensure autonomy and mitigate risk based on international / cross-national events with reference to Brexit & conflict in Ukraine)

■ Funding (IAEA - AFRA delegation to visit SA during 20 to 25th of June 2022)

- ❑ IAEA – AFRA Regional Project Combined AFRA Anglophone (SAIW) & Francophone (Cetime)
Regional Designated Centre proposal to realise objectives in
54 African countries
- ❑ Regional Economic Communities of the African Union (AU) to be contacted should the first option not be viable. These include:

Arab Maghreb Union (UMA); Southern African Development Community (SADC); Economic Community of Central African States (ECCAS); Economic Community of West African States (ECOWAS); Community of Sahel-Saharan States (CEN-SAD); Common Market for Eastern and Southern Africa (COMESA); East African Community (EAC); Intergovernmental Authority on Development (IGAD)

Strategic Plan

■ Process

Regional Project: 2023 to 2026 (SAIW Certification to assist & facilitate based on criteria compliance)

- ❑ **STEP 1:** Assist Cetime in ICNDT MRA 2 Registration (Cetime to co-assist)
- ❑ **STEP 2:** ICNDT MRA Schedule 1 signature in 5 subregional 'lead' countries i.e. Tunisia, Cameroon, Sudan, Ghana
- ❑ **STEP 3:** ATB + PCB (AQB) in 5 subregional 'lead' countries
- ❑ **STEP 4:** ICNDT MRA 2 Registration for national PCB's
- ❑ **STEP 5:** Identify subregional NDT Academia / Research and promote networking
- ❑ **STEP 6:** Promote regional networking and collaboration

Triangular Projects: 2027 to 2030

- ❑ **STEP 7:** Subregional leads to establish ATB + PCB (AQB) within subregion
- ❑ **STEP 8:** ICNDT MRA 2 Registration for national PCB's
- ❑ **STEP 9:** Promote subregional networking and collaboration

National Projects: 2031 to 2034

- ❑ **STEP 10:** Expand ATB & AQB Activities established
- ❑ **STEP 11:** Promote national networking and collaboration

THANK YOU – Any questions?





ICNDT GENERAL ASSEMBLY & 43th MEETING 2022, June 15th

11 am London UK time

07 am Brazil time



MANAGEMENT BOARD

- President: João Conte (ABENDI - Brazil)
- Vice President: Dave Bajula (ASNT - USA)
- Treasurer: Jorge Amsler (AAENDE - Argentina)
- Secretary: Glenn Tubrett (CINDE – Canada)



SOCIETY	SOCIETY FULL NAME	COUNTRY
FULLY CONSTITUTED SOCIETY		
AAENDE	Asociación Argentina de Ensayos No Destructivos y Estructurales	Argentina
ABENDI	Associação Brasileira de Ensaios Não Destrutivos e Inspeção	Brasil
ACOSEND	Asociación Colombiana de Soldadura y Ensayos No Destructivos	Colombia
AENDUR	Asociación Uruguaya de Ensayos No Destructivos	Uruguay
AMEXEND A.C.	Asociación Mexicana de Ensayos no Destructivos Asociación Civil	México
ASNT	The American Society for Nondestructive Testing Inc	USA
CINDE	Canadian Institute for Non-destructive Evaluation	Canada
IMENDE A.C.	Instituto Mexicano de Ensayos No Destructivos, A.C.	México
HIBERNATION STATUS		
APEND	Asociación Peruana de END	Peru
ASBOSENDIC	Asociación Boliviana de Soldadura, Ensayos No Destructivos, Inspección y Corrosión	Bolivia
*Costa Rica	Instituto Tecnológico de Costa Rica	Costa Rica
SOCIETY CONSTITUTION IN PROGRESS		
ACHISEND	Asociación Chilena de Soldadura Inspección y Ensayos no Destructivos	Chile
ASENDEC	Asociación de END del Ecuador	Ecuador
ASOVEND	Asociación Venezolana de END	Venezuela
CONENCA	Comite Nacional de Ensayos No Destructivos y Calidad	Dominican Republic



Main activities

- Next PANNDT Conference:
VIII Pan-American Conference for Nondestructive Testing (VIII PANNDT)
postponed to 2025 June (Canada);
- General Assembly: 2022 Jan 27th
- Board meetings: 2021 Oct 5th; 2022 May 3rd and June 8th
- Strategic Plan
- 2022 Membership invoices (ICNDT & PANNDT) sent
- 2002 annual fees: AAENDE, ABENDI, ASNT and CINDE



Challenges

- As in other sectors, Covid 19 pandemic impacted the business;
- Collection from smaller societies regarding 2022 annual fee;
- Support to the smaller societies to create their national certification schemes.



Opportunities

- Future new members:
 - ☐ Bolívia
 - ☐ Chile
 - ☐ Costa Rica
 - ☐ Dominican Republic
 - ☐ Ecuador
 - ☐ Peru
 - ☐ Venezuela



20th WCNDT

20th WCNDT

20th World Conference on Non-Destructive Testing

Songdo Convensia, Incheon, Korea

27-31 May 2024

20th WCNDT Progress Report

Exclusive Sponsor

EVIDENT | OLYMPUS



Ministry of Science and ICT



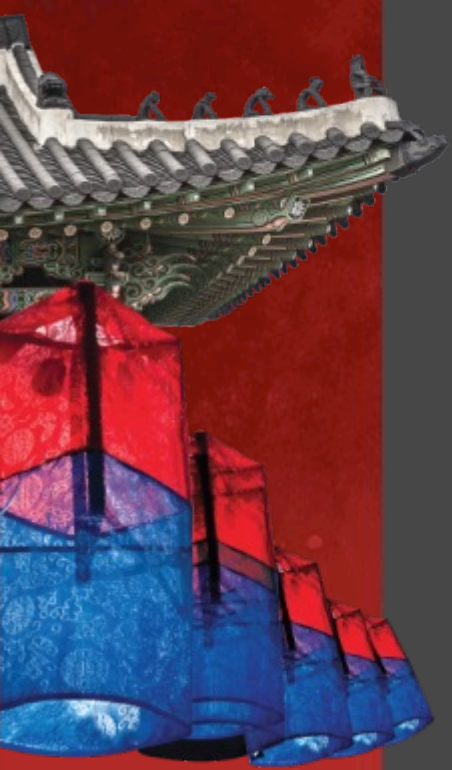
Incheon
Metropolitan City



The World Organisation for NDT

KSNT

THE KOREAN SOCIETY FOR NONDESTRUCTIVE TESTING



Reporting of Situation Update



Conference **New Dates**

Before Postponed

After Postponed

Date

30 May-3 June 2022

27-31 May 2024

As the world has been still heavily impacted by the COVID-19 pandemic led by the resurgence of new variants, 20th WCNDT Organizing Committee has decided the postponement of the Conference to the new date for **27 to 31 May, 2024.**

Venue

Songdo Convensia, Incheon

Official Website

<https://www.20thwcndt.com>



Homepage Renewal

The official conference website has been renewed and opened after major updates have been made. (conference date, important dates, exclusive sponsor logo, etc.)



The screenshot shows the homepage of the 20th WCNDT website. The header features a navigation bar with links: HOME, LOGIN, REGISTER, CONTACT, SITEMAP. Below the navigation bar is a large banner image featuring a stylized blue figure holding a torch, set against a background of a modern building and a bridge. The banner includes the logos for EVIDENT and OLYMPUS, and the text: **20th WCNDT**, 20th World Conference on Non-Destructive Testing, Songdo Convensia, Incheon, Korea, 27-31 May 2024. Logos for the Ministry of Science and ICT, Incheon Metropolitan City, Incheon Tourism Organization, and Korea Tourism Organization are also present.

News & Notice

- The updated 20th WCNDT website has been re-opened.
- Many new information has been updated! Check now.
- Online abstract submission has been re-opened.
- More exhibition booths are available! Check now.
- Get the 20th WCNDT Sponsorship package! Contact now.

Important Dates

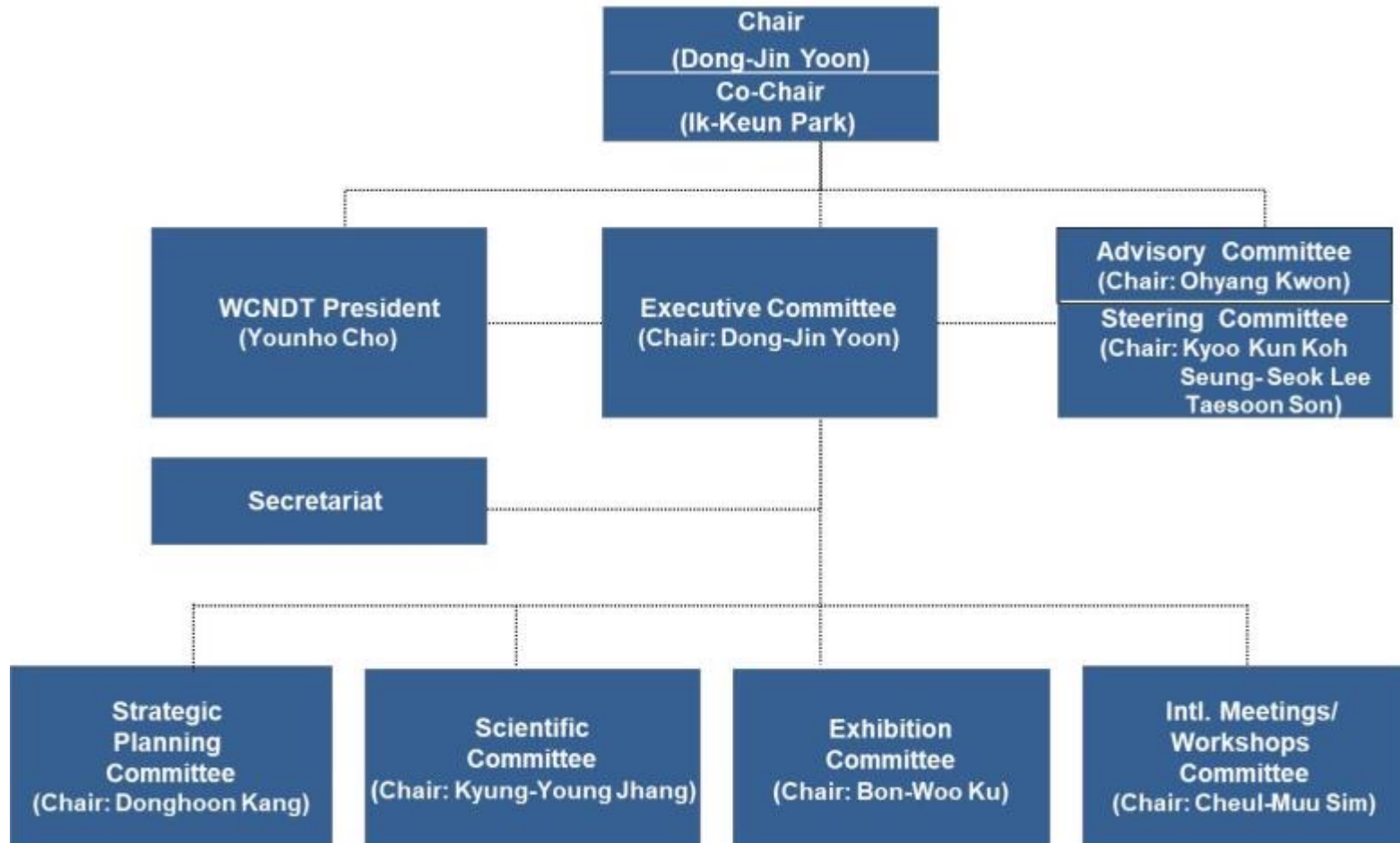
- Abstract Submission : **31 August 2023**
- Notification of Abstract Acceptance : **31 October 2023**
- Submission of Camera-ready Abstract (Mandatory) : **31 December 2023**
- Submission of Extended Abstract or Paper* (Optional) : **31 December 2023**

*For the Conference proceedings (NOT for the SCIE journal submission)

- Registration and Payment of Presenting Author : **31 December 2023**
- Preliminary Program : **31 January 2024**

Newly Revamped Organizing Committee

With the postponement of the 20th WCNDT to 2024 and the inauguration of new president of the KSNT, Dr. Dong-Jin Yoon, the Organizing Committee has been restructured to carry out all relevant works more efficiently.



Important Timelines



Abstract Submission Due Dates 31 August 2023	(D-270)
Notification of Abstract Acceptance 31 October 2023	(D-209)
Early-bird Registration and Payment of Presenting Authors 31 December 2023	(D-148)
Submission of Extended Abstract or Paper 31 December 2023	(D-148)
Preliminary Program 31 January 2024	(D-117)
Booth Application Due Dates 30 June 2023	(D-332)
Final Program 30 April 2024	(D-27)
Pre-registration Due Dates 10 May 2024	(D-17)

Registration Status (As of 8 June)

※Excluding cancellation and non-payment

Category of Conference Fees	Number of Registrants
Participants (Full)	306
Students	64
Retired/Meeting	15
Accompanying Person	18
Exhibitors (Free)	171
NDT Society (Free)	19
Total	593

Registration Fee

- ▶ Inevitably, the registration fee will be raised about 8~12.5% from the pre-existing fee as the conference is postponed for four years.
- ▶ All participants who have already registered for the conference to date are eligible by default for the registration fee prior to the increase.

Registration Fees

Category		Until 31 December 2023	From 1 January 2024 to 10 May 2024	On-Site 27-31 May 2024	Rate of increase
		USD	USD	USD	
Conference	Participants (Full)	1,250	1,350	1,400	Approx. 8~8.5%
	Students/Retiree	750	800	850	Approx. 6~7%
Accompanying Person		450	500	550	Approx. 10~12.5%

Online Registration

- ▶ **Online registration system should be operational from October 2022.**

Abstract Submission Status

Abstract Submission Status by Main Topic (As of 8 June)

Division		Oral	Poster	Total
Topic 1.	Ultrasonics (UT)	199	33	232
Topic 2.	Infrared Thermography (IR)	40	12	52
Topic 3.	Eddy Current & Electromagnetics (ET)	69	37	106
Topic 4.	Digital Radiography & Computed Tomography (RT)	85	35	120
Topic 5.	Power Plants (PP)	38	15	53
Topic 6.	Structural Health Monitoring & Prognostics and Health Management (HM)	28	9	37
Topic 7.	Optics & Vision Systems (OT)	15	4	19
Topic 8.	Civil Infrastructures (Smart NDT for Bridges and Buildings) (HM)	27	7	34
Topic 9.	Terahertz (TZ)	37	17	54
Topic 10.	Transportation (TR)	24	20	44
Topic 11.	Aerospace & Defense (AD)	29	2	31
Topic 12.	Acoustic Emission & Acoustic Method (AE)	42	21	63
Topic 13.	Additive Manufacturing (AM)	20	2	22
Topic 14.	NDT Industry 4.0(IoT, AI etc.) (AI)	31	8	39
Etc.	Biomedical Technology (BT)	7	2	9
	Material Characterization (MC)	21	11	32
	Vibration & Condition Monitoring (CM)	5	2	7
	Certification & Qualification (CQ)	18	4	22
	Oil & Gas (OG)	25	5	30
	NDT Reliability (RE)	22	7	29
	Sensor & Materials (SM)	8	5	13
	Etc.	9	15	24
Special Sessions		89	5	94
Academia		12	0	12
Total		900	278	1178

Status Quo of Booth Contracts

(Based on A-sized booth)

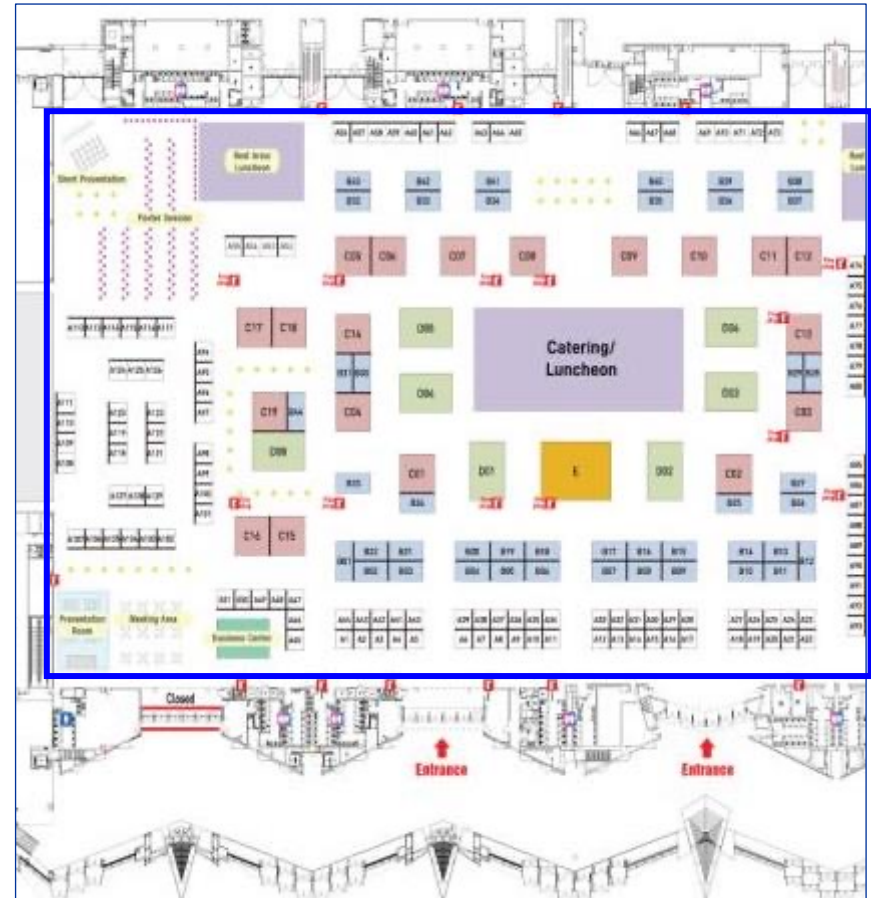
Total number of booths	343
Number of contract completed	339

(*99% contract completed)

Number of remaining booths	4
----------------------------	---

(Based on A-sized booth, *1 C booth)

Number of exhibitors	185
Number of countries	25



Exhibition Floor Plan

Expansion of the Exhibition Area

- The exhibition floor plan will be upgraded as below by **adding 84 single units (3mx3m)** which will enable more potential exhibitors to book exhibition booths.

Number of additional booth **84**

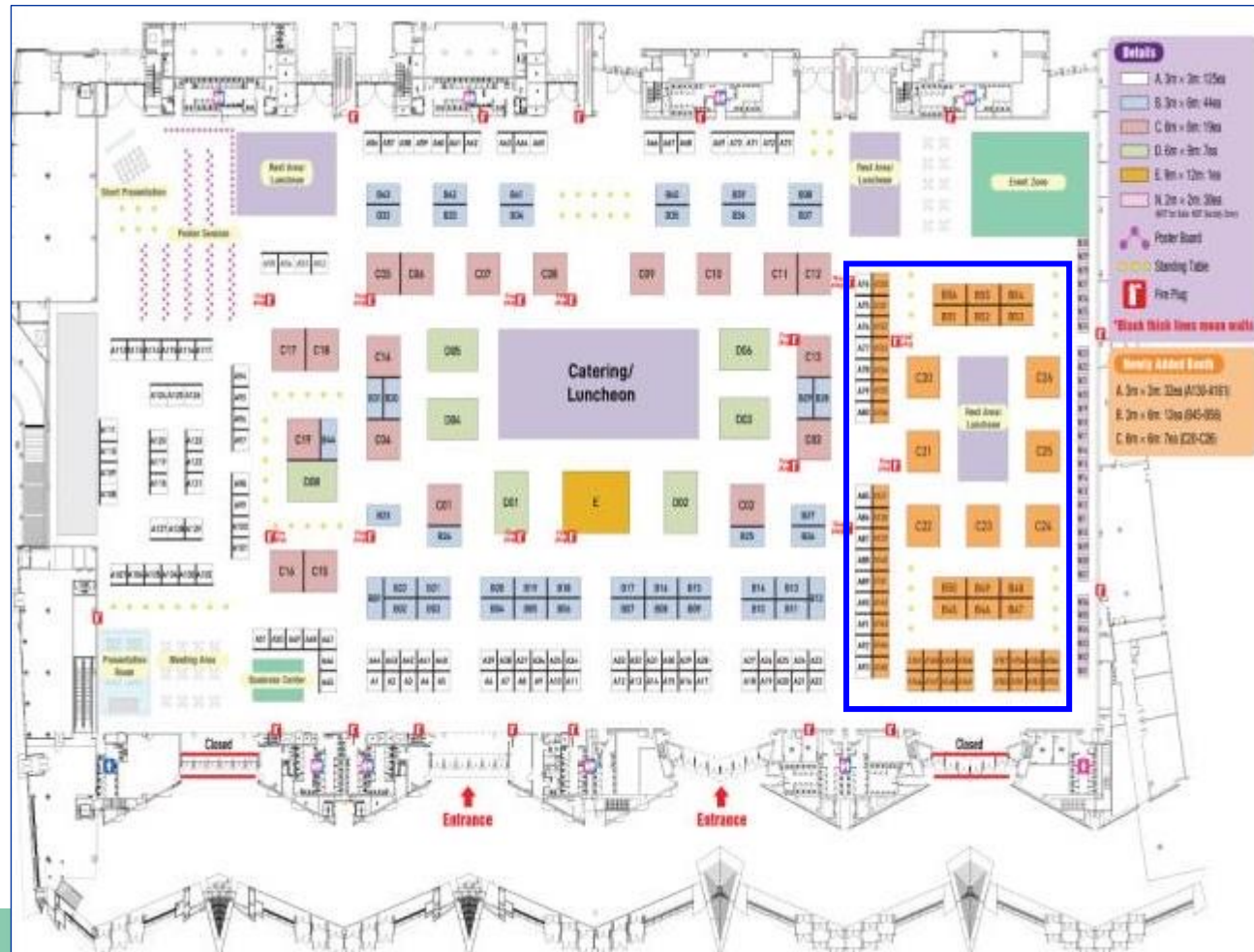
(Based on A-sized booth/About 20% booth increase)

Number of booths by size

- A size (3m x 3m) **32**

- B size (3m x 6m) **12**

- C size (6m x 6m) **7**



- ▶ The booth fee **after January 2023** will be raised as the conference is postponed for four years as below.
- ▶ Rate of increase: Approx. 12.5%/4year(based on 2020)

Booth Fees

Booth Type	Until 31 December 2022		From 1 January 2023	
	Shell-Scheme	Raw-Space	Shell-Scheme	Raw-Space
A (3m x 3m)	USD 7,900	USD 7,300	USD 8,900	USD 8,200
B (3m x 6m)	USD 15,800	USD 14,600	USD 17,800	USD 16,400
C (6m x 6m)	USD 31,600	USD 29,200	USD 35,600	USD 32,800

Booth Application

- ▶ To book selected exhibition booth, download exhibition application form at the conference website and complete and send it to the secretariat by email (exhibition@20thwcndt.com) with a payment of the 50% booth fee.

Sponsorship

- ▶ As of 10 June total **25 sponsors** including exclusive sponsor confirmed their participation.
- ▶ 20th WCNDT Organizing Committee will undertake multi-faceted efforts to attract more sponsors to contribute overall income

Exclusive Sponsor

EVIDENT | OLYMPUS

Other Sponsors (19)



Supporting Organizations (5)





INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

ICNDT WG 4 Communications



ICNDT General Assembly & 43rd ICNDT Meeting

Wednesday June 15th, 2022, 11:00 - 15:00 UK Time (BST=GMT+1)

Chair, WG 4, Shohei Ooka (JSNDI)



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

Promotion of the Importance of NDT

As a branch of engineering that is valuable worldwide, ICNDT would like to make the public aware of what Non-Destructive Testing is and why it is such an important component for public safety. ICNDT mostly focuses on fostering cooperation between NDT Federations, Societies, or other organisations, but public awareness will also play a role in the future of NDT.

ICNDT WG 4, Communication, aims to utilize a diverse range of tools for communication through social media, email, and other multi-media. It is our aim to deliver and receive information effectively, swiftly, and conveniently to benefit the ICNDT as well as the NDT community around the world.



Members of ICNDT WG 4

Members of ICNDT WG 4, Communications

Chair	Mr. Shohei Ooka	JSNDI	Japan
Past Chair	Mr. David Gilbert	BINDT	UK
Member	Ms. Sharon Bond	ICNDT	Canada
Member	Mr. Stefan Cullmann	DGZfP	Germany
Member	Ms. Garra Liming	ASNT	USA
Member	Mr. Don Andrews	CINDE	Canada
Member	Mr. Antonio Aulicino	ABENDI	Brazil
Observer	Dr. Mike Farley	ICNDT	UK
Observer	Dr. Sajeesh K Babu	ICNDT	Singapore



Adoption of Agenda

1. ICNDT Action Plan
2. ICNDT Journal – Schedule for 2022
3. ICNDT Photograph Contest – “NDT Stories in Pictures”
4. Update on ICNDT Website
5. Update on ICNDT Membership System
6. Other Items – SNS tools
7. Next ICNDT WG 4 meeting

Thanks to Mr. David Gilbert and his team of BINDT for the contributions.

3. ICNDT Photo Contest



❖ ICNDT Photograph Competition 2024



The World Organisation for NDT



ICNDT Photograph Competition 2024
“NDT Stories in Pictures”
Songdo Convention, Incheon, Korea

Prize

Win the prize of “One Free Full Registration” to the 20th World Conference on Non-Destructive Testing (WCNDT) from 27 to 31 May 2024 in Korea.

Deadline 31 January 2024

Commendation

The winner will be announced on the ICNDT Website by the end of March 2024, and awarded during the 20th WCNDT with a certificate of commendation.

How to apply

To enter the “ICNDT Photograph Competition 2024”, please visit the ICNDT website at www.icndt.org to download all forms and once completed, send it back with one photograph to the ICNDT WG 4 at icndt@jndi.or.jp.

If you have any inquiries you wish to know, please contact to ICNDT WG 4 (icndt@jndi.or.jp).

“NDT Stories in Pictures”

Win the prize of “One Free Full Registration”
to the WCNDT 2024 in Korea

Deadline: 30 January 2024

More information Visit ICNDT homepage!!!

■ ICNDT Working Group 4

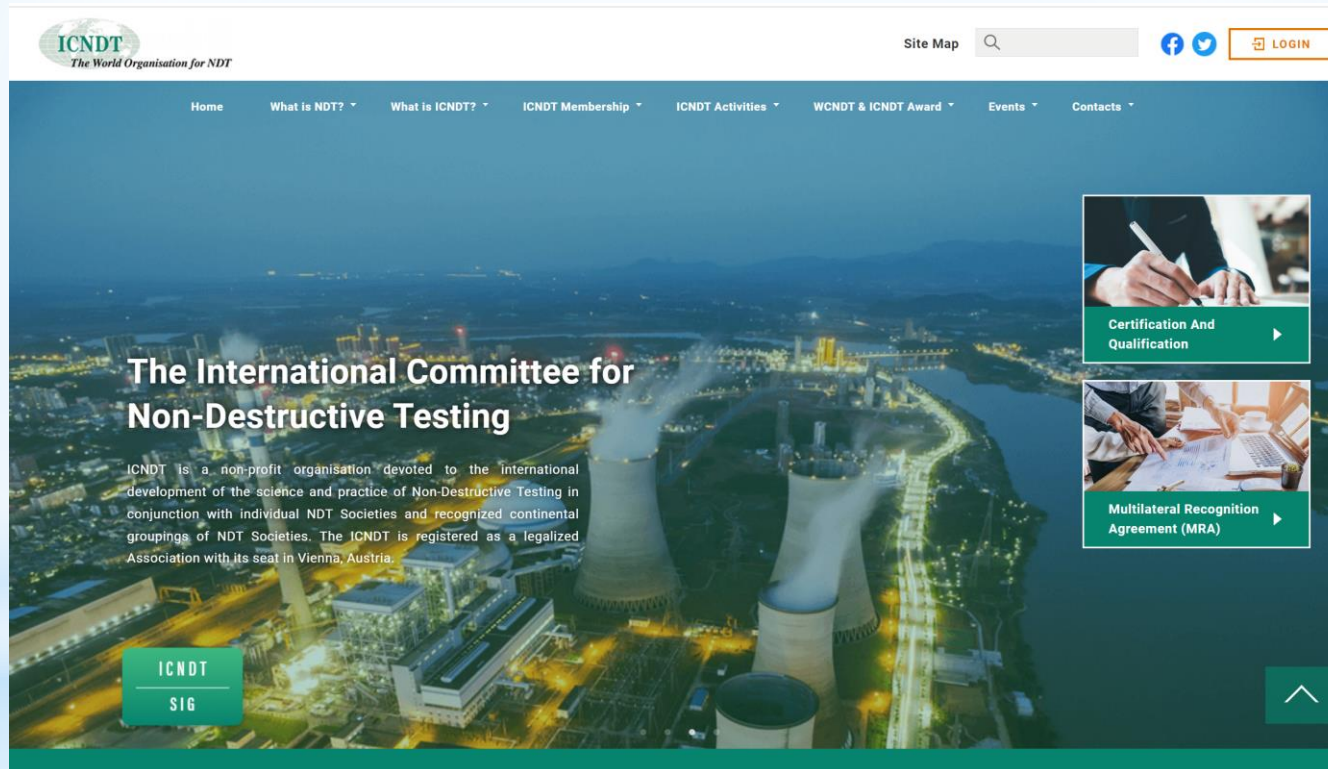
4. Update on ICNDT website

❖ Renewal of ICNDT Homepage



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT



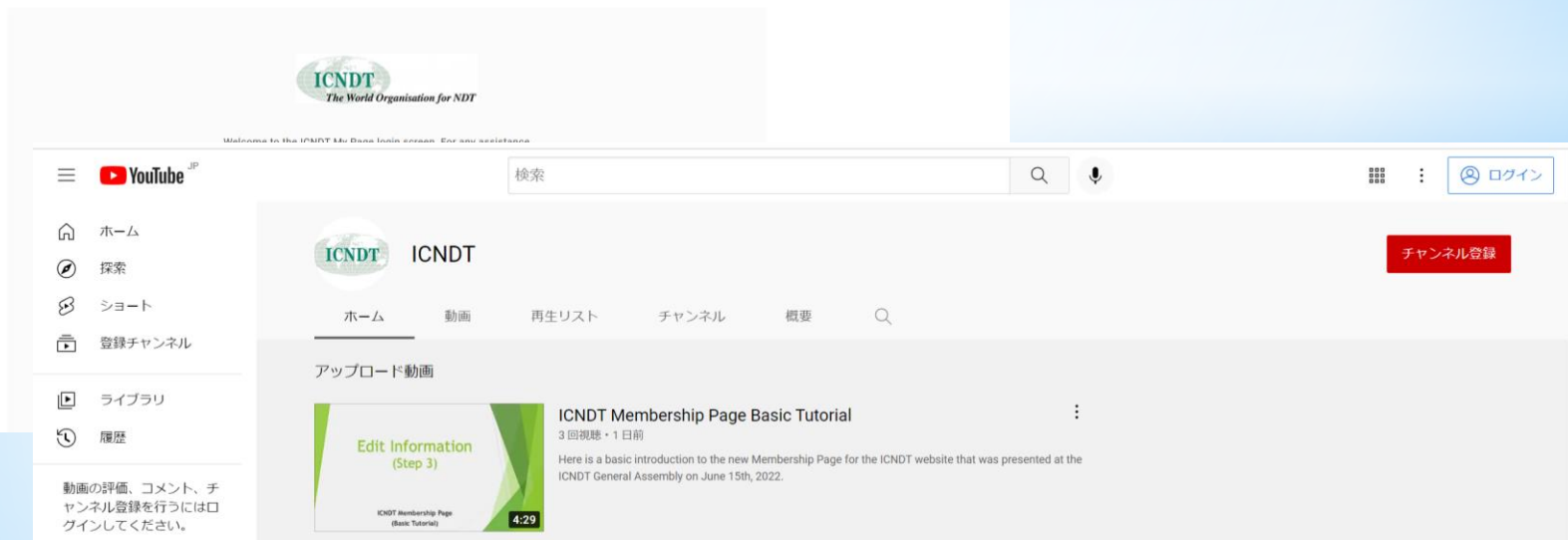
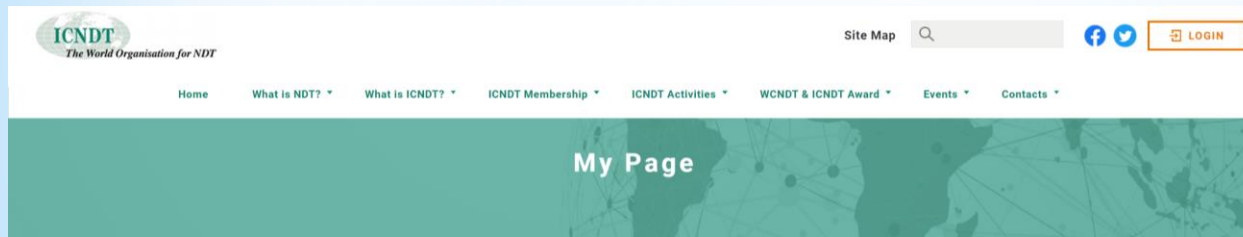
Hosted by The Japanese Society for Non-Destructive Inspection (JSNDI)



5. Update on ICNDT System

❖ Update on ICNDT Membership System

✓ ICNDT Membership Page Basic Tutorial (YouTube)





INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

6. Other

SNS – Social Networking Service
(Facebook, Twitter, Instagram, LinkedIn, etc.)



7. Next ICNDT WG 4 Meeting



INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

❖ Plan for next ICNDT WG 4 Meeting (Draft)

➤ APCNDT 2023

28 Feb – 3 March 2023
Melbourne, Australia



➤ ECNDT 2023

3 – 7 July 2023
Lisbon, Portugal



➤ WCNDT 2024

27 – 31 May 2024
Incheon, Korea





INTERNATIONAL COMMITTEE FOR
NON-DESTRUCTIVE TESTING

The World Organisation for NDT

Thank you so much for your contributions to ICNDT WG 4.

Your involvement is very important.

Any Questions?



The World Organisation for NDT

ICNDT Working Group 1 on Qualification and Certification

Report to GA

15th June 2022

**Alexander MULLIN
WG 1 Chair**

WG 1 Membership

Currently – 22 members representing the following countries:

Austria, Australia, Brazil, Bulgaria, Canada, China, Germany, France, Japan, Iran, India, Republic of Korea, Russia, Singapore, Spain, South Africa, Turkey, Ukraine, UK, USA



WG1 members (rev. 14 June 2022)

Name	Affiliation	Comments
Alexander Mullin (Chair)	Russian Society for NDT	mullin@ndt-rus.ru
Gerald Idinger	Austrian Society for NDT	g.idinger@oegfzp.at
Harold Jansen	South African IW	harold.jansen@saiw.co.za
João Rufino Teles Filho	Brazilian Society for NDT	rufino@rufinoteles.com.br
P.K. Yuen	Canadian Institute of NDE	puikei.yuen@canada.ca
Ralf Holstein	German Society for NDT	ho@dgzfp.de
Shohei Ooka	Japanese Society for NDI	shohei@jsndi.or.jp
Patrick Fallouey	Honoured member	Patrick.Fallouey@orange.fr
Rodolfo Rodríguez	Spanish Society for NDT	r.rodriguez@aend.org
Dave Bajula	American Society for NDT	dbajula@acuren.com
Sajeesh Kumar Babu or Dickson Tan	NDT Society (Singapore)	skbabu@ndtss.org.sg
Vitaly Radko	Ukrainian Society for NDT	Garwardv@i.ua
Keith Arcus	Australian Institute for NDT	kcarcus1@bigpond.net.au
Jennifer Cook	British Institute for NDT	jennifer.cook@bindt.org
Kyung-Cho Kim	Korean SNT	robertkc.kim@gmail.com
Jingyuan Ji	Chinese Society for NDT	mib8888@163.com
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Mirmajid Ghaemi	Iranian Society for NDT	mirmajidghaemi@gmail.com
Diwakar D. Joshi	Indian Society for NDT	diwakarj@gmail.com
Yordan Mirchev	Bulgarian Society for NDT	mirchev@imbm.bas.bg
Améla Elezovic	COFREND	a.elezovic@cofrend.com
Gerhard Aufricht	WKO	aufricht@aufricht.at
Colin Bird	ICEC	icec-secretary@icndt.org

Observer status

Mike Farley	Past Chairman, ICNDT	mfarleyconsulting@btinternet.com
David Gilbert	General Secretary ICNDT	David.Gilbert@bindt.org
Hannah Affum	IAEA	H.Affum@iaea.org
Peter Milligan	Australian Institute for NDT	csm@aindt.com.au
Norikazu Ooka	Japanese Society for NDI	nori-ooka@rio.odn.ne.jp
Darcy Corcoran	ISO TC135 SC7	darcy@qcccanada.com
Ignacio Gonzalez	Spanish Society for NDT	i.gonzalez@aend.org

WG 1 Meetings

2018 – Gothenburg, Sweden - 13 June 2018

2019 – Mexico-city – 22 October 2019

2020 – Seoul – 07 June 2020 – cancelled

2021 – on-line – 21 April 2021

2022 - on-line – 14 June 2022

WG 1 Meeting, 21 April 2021



WG1 on NDT Qualification and Certification

Online meeting of 14th of June 2022 (Tuesday)
13:00 – 16:00 CEST

AGENDA

- | | |
|--|---------------|
| 1. Welcome and Apologies | A Mullin |
| 2. Adoption of the Agenda | A Mullin |
| 3. WG1 Membership | A Mullin |
| 4. New ISO 9712:2021. Do we need Recommendation on interpretation? | A Mullin |
| 5. ICNDT Guide to Good practice- Fraudulent Management by Personnel Certification Bodies | SK Babu |
| 6. ICNDT MRA 2 Quality Objective – Continuous Improvement. | H Jansen |
| 7. ICEC Exam Question Bank – Going forward | H Jansen |
| 8. Updating of ICNDT Guide on Certification of NDT Personnel to reflect the new ISO 9712 | M Farley |
| 9. Report on the work of the ICEC | C Bird |
| 10. WG1 page on new ICNDT website | S Ooka |
| 11. WCNDT2020. Session and Workshop on certification | Kim Kyung-Cho |
| 12. EA Guidance on transfer of certificates under ISO/IEC 17024 (draft) | A Mullin |
| 13. WG1 Action plan | A Mullin |
| 14. Any other business | members |
| 15. Date and place of next meeting | A Mullin |



Action plan.

Part of ICNDT Strategic plan

Last update – 14 June 2022

INTERNATIONAL COMMITTEE FOR
NON DESTRUCTIVE TESTING



Working Group 1
on Qualification
and Certification

ICNDT ACTION PLAN 3: QUALIFICATION AND CERTIFICATION Task Group: WG1 Task Group Leader: Alexander Mullin

Document title	Revision Date	Revised by	Scope of revision	Circulated to WG1
WG1-03_Action Plan	2009-08-17	JR Thompson	Synchronised with ICNDT Strategic Plan (revision 3A). NOTE: the ICNDT strategic plan is now at Rev 5	2009-08-24
WG1-03_Action Plan	2010-01-04	JR Thompson	Superficial review following the first WG1 meeting in Yokohama, and prior to an IEC virtual meeting in January 2010	2010-01-04
WG1-03_Action Plan	2010-01-18	JR Thompson	Reformatted and rationalised following IEC Teleconference	2010-09-12
WG1-03_Action Plan	2010-09-12	WG1	Reviewed and revised at Vienna meeting as required by WG1 ToR	2010-09-28
WG1-03_Action Plan	2011-06-10	WG1	Reviewed and revised at Valencia meeting as required by WG1 ToR and IEC	2011-07-01
WG1-03_Action Plan	2012-11-19	A Mullin	Reviewed and revised at Luton meeting	2012-11-19
WG1-03_Action Plan	2013-11-20	A Mullin	Reviewed and revised at Mumbai meeting	2013-11-20
WG1-03_Action Plan	2014-10-06	A Mullin	Reviewed and revised at Prague meeting	2014-09-23
WG1-03_Action Plan	2015-10-30	A Mullin	Reviewed and revised at Salt Lake City meeting	2015-10-08
WG1-03_Action Plan	2016-06-16	A Mullin	Reviewed and revised at Munich meeting	2016-06-06
WG1-03_Action Plan	2017-06-05	A Mullin	Reviewed and revised at Vienna meeting	2017-06-05
WG1-03_Action Plan	2017-11-15	A Mullin	Prepared and revised at Singapore meeting	2017-10-19
WG1-03_Action Plan	2018-06-13	A Mullin	Prepared and revised at Gothenburg meeting	2018-05-30
WG1-03_Action Plan	2019-10-22	A Mullin	Prepared and revised at Mexico meeting	2019-10-18
WG1-03_Action Plan	2021-04-21	A Mullin	Prepared and revised at on-line meeting	2021-04-19
WG1-03_Action Plan	2022-06-14	A Mullin	Considered at online meeting	2022-06-14

Assignments are proposed by the chairman for acceptance by the nominated WG1 member. Where primary and secondary (or backup) responsibilities are stated, this is to (a) spread the workload, (b) ensure continuity in the event that an individual ceases to be a WG1 member, and (c) improve the likelihood that at least one

New items.

A7. Update WG1 webpage on ICNDT website.

Provide new and interesting material on qualification and certification in order to keep the WG1 webpage updated.

B1. Review and update the ICNDT Guide and Recommendations on NDT personnel Qualification and Certification

B2. Further development of ICNDT Examination question bank (EQB)

New items.

B5. Develop recommendation for Interpretation of ISO 9712:2021

B8. Develop an ICNDT Recommendation to Good practice - Fraudulent Management by Personnel Certification Bodies (including provision of impartiality to meet requirements of ISO/IEC 17024:2012 and ISO 9712:2021).

B9. Develop recommendation on recognition of certificates under ISO/IEC 17024:2012 and ISO 9712:2021

Workshops on qualification and certification

2014 – Prague

2016 – Munich

2017 – Singapore

2020 – Seoul – **cancelled**

2024 – Incheon - planned

Workshop on Qualification and Certification of NDT personnel Prague, Friday Oct 10th, 9:30 to 12:00 Joint Chairs: Alexander Mullin (WIG) and Patrick Falloney (ICEC)		
Time	Speaker	Topic
9:00 - 9:15	Mike Farley, Chairman	Scene-setting
9:15 - 9:30	ICNDT Nicole Scott	Comparison of implementation of ISO 9712 by different PCBs
9:30 - 9:45	Roger Engelhart	New CP106
9:45 - 10:00	Alexander Mullin	Issues raised in current ICNDT review of standard ISO 9712:2012
10:00 - 10:15	Rodolfo Rodriguez	Value/importance of experience before certification
10:15 - 10:30	S K Babu	Comparison & review best practice for personnel / recertification

ICNDT Workshop "NDT + CM training and certification – current issues" WCNDT, Munich 17th June, 09:00-12:00		
Time	Speaker	Subject
9:00 - 9:05	M Farley	Scene-setting
9:05 - 9:15	M Farley	Degrees of harmonisation
9:15 - 9:50	T Channing	Update on ASNT views on ACCP/ISO9712, and specialist certification in USA (ANPS, ANDE, etc)
9:50 - 10:10	M Turnbow	ANDE-Performance Based Training and Experience
10:10 - 10:25	S K Babu	Recommendation for Administering Practical Examination
10:25 - 10:40	N Scott	Authorized qualification body: Functions and responsibilities. Best practice.
10:40 - 11:00	H. J. Jansen	Standardised external experience in capacity assessment

ICNDT The World Organisation for NDT ICNDT Workshop on NDT Laboratory Accreditation & Personnel Certification 16th of November 2017 (Thursday) 09:00 – 12:30 Singapore Marina Bay Sands Hotel		
Time	Speaker	Subject
11:10 - 11:15		
11:25 - 11:30		
11:35 - 11:40		
11:50-12:00		
12:00		

ICNDT Workshop "NDT + CM training and certification – current issues" WCNDT, Seoul 12th June 2020, 08:00-12:00		
Time	Speaker	Subject
08.00 - 08.05	M Farley	Scene-setting
08.05 – 08.25	M Farley	Degrees of harmonisation
08.25 – 08.50	D Corcoran	Revision of ISO 9712. Current situation
08.50 - 09.15	R Holstein	ISO/TS 25107:2019
09.15 - 09.35	A Mullin	ISO/TS 25108:2018.
09.35-09.55	D Bajula	Update on ASNT views on ACCP/ISO9712, and specialist certification in USA
09.55 - 10.20	M Turnbow	Update on ANDE-Performance Based Training and Experience
10.20 - 10.45	S K Babu	Harmonisation and recognition- risk and opportunity analysis
10.45 - 11.10	J Moody	Practical Marking Considerations
11.10 - 11.35	P K Yuen	On-line examination. Advantages and disadvantages
11.35 - 11.50	P Brisset	IAEA developments on qualification and certification of NDT personnel
11.50-12.00	M Farley	Closing

ICNDT Recommendation to Good practice - Fraudulent Management by Personnel Certification Bodies

Task Group Members

S No	Name	Society	Email
1	Sajeesh Kumar BABU	NDTSS	skbabu@ndtss.org.sg
2	Jennifer COOK	BINDT	jennifer.cook@bindt.org
3	Amela ELEZOVIC	COFREND	a.elezovic@cofrend.com
4	David J GILBERT	BINDT	David.gilbert@bindt.org
5	Diwakar D JOSHI	ISNT	diwakarj@gmail.com
6	John MOODY	BINDT	John.moody@bindt.org
7	Alexander MULLIN	RSNDTT	mullin@ndt-rus.ru
8	Rodolfo RODRIGUEZ	AEND	r.rodriguez@aend.org
9	Pui Kei YUEN	CINDE/NRCAN	puikei.yuen@canada.ca

Background

ICNDT WG1 Task Group is developing these recommendations to prevent unfair delivering ISO 9712 Personnel Certification and reduce the risk for Certification bodies.

Members who are part of Schedule 2 of ICNDT MRA shall extend their best efforts to minimize occurrences of any deviations from both ISO/IEC 17024:2012 and ISO 9712:2012 during the operation.

The purpose of this document is also to provide guidance note for Certification body operations with respect to training, examination & managing impartiality.

Recommendations provides the best practice in regards to:

- 1. Structure of Certification Body**
- 2. Outsourcing**
- 3. Application process**
- 4. Examination Question bank**
- 5. Practical Examination**
- 6. Instruction writing / Procedure writing**
- 7. Decision on certification**

Appendix A. Sample Risk Register

WG1 webpage on ICNDT web site



Site Map



[Home](#)

[What is NDT? ▾](#)

[What is ICNDT? ▾](#)

[ICNDT Membership ▾](#)

[ICNDT Activities ▾](#)

[WCNDT & ICNDT Award ▾](#)

[Events ▾](#)

[Contacts ▾](#)

ICNDT WG1 Qualification and Certification

Content of WG1 webpage

Public area:

- Composition of WG1
- Objectives of WG1
- Tasks of WG1
- Terms of reference (latest revision).
- Folders:
 - Agendas of WG1 meetings
 - Press release from WG1 meetings

Members area

- Documents for WG1 meetings



Thank you!



The World Organisation for NDT

ISO 9712:2021 Status and Adoption

Report to GA

15th June 2022

Alexander MULLIN

ISO/TC 135

ISO/TC 135/SC 7

Personnel qualification

ABOUT

SECRETARIAT: [SCC](#)

Committee Manager: [Ms Jennifer Jimenez](#)

Chairperson (until end 2023): Mr Darcy Corcoran

ISO Technical Programme Manager [TPM]: [Mme Maho Takahashi](#)

ISO Editorial Manager [EM]: [Mrs Yvonne Chen](#)

Creation date: 1982

ISO 9712:2021 Status and Adoption

16-17 November 2017, Singapore

SC7 physical meeting

- Consideration of more than 400 comments
- Creation of 7 Task Groups on the main aspects of the standard

16-19 June 2018, Gothenburg, Sweden

SC7 physical meeting

- Continuation of consideration of comments
- The work of Task Groups in their areas of concern
- Discussion of the work of the Task Groups

Representation of ICNDT WG1 in TC 135 SC7 Task Groups.

Task Groups – ISO/TC 135/SC 7

Task Group #1

- Sajeesh Kumar Babu, ICNDT

Task Group #2

- Dave Bajula, ICNDT

Task Group #4

- PK Yuen, ICNDT

Task Group #5

- Harold Jansen, ICNDT

Task Group #6

- Peter Milligan, ICNDT

Task Group #7 – Convenor, Alexander Mullin

- Ji Jingyuan, ICNDT

ISO 9712:2021 Status and Adoption

28-30 October 2018, Huston, Texas, USA **SC7 physical meeting**

- Continuation of consideration of comments
- The work of Task Groups in their areas
- Discussion of the work of the Task Groups

4-6 March 2019, Munich, Germany **Physical meeting of Task groups Chairs** CD ISO 9712 (Committee Draft)



ISO 9712:2021 Status and Adoption

17-19 June 2019, Edmonton, Canada **SC7 physical meeting**

- Request to ISO to increase the standard development time from 36 to 48 months
- Consideration of the first version of the CD ISO 9712 prepared by the Task Groups

15-16 October 2019, Paris, France **Physical meeting of Task groups Chairs**

- Review of CASCO comments
- Development of the final edition of CD ISO 9712

ISO 9712:2021 Status and Adoption

January 2020

- Voting on CD ISO 9712

March 2020

- Received 392 comments on ISO 9712 CD
- Comments received from CASCO

24 and 30 June 2020

Physical meeting of Task groups Chairs

- Consideration of comments on CD ISO 9712
- Review of CASCO comments

ISO 9712:2021 Status and Adoption

22 - 24 September 2020

SC7 On-line meeting

Development of the final version of DIS ISO 9712

30 October 2020

**On-line заседание руководителей Рабочих групп и
представителей CASCO**

- Alignment of DIS ISO 9712 with CASCO comments

ISO 9712:2021 Status and Adoption

May 2021

Development of FDIS ISO 9712

August 2021

Voting on FDIS ISO 9712

December 2021

Publication of ISO 9712:2021



ISO 9712:2021 Status and Adoption

Resolutions taken at the 23rd meeting of ISO/TC 135/SC 7,
Virtual Meeting (Zoom) October 18, 2021

ISO/TC 135/SC 7 agrees to establish Task Groups to review
Methods, Techniques and Sectors so that current technologies
are considered in the next revision of ISO 9712 and other
related standards. Guidelines will be created to harmonize the
various TG activities.

TG1 – Sectors

TG2 – Eddy Current Testing (ET)

TG3 – Leak Testing (LT)

TG4 – Magnetic Testing (MT)

TG5 – Radiographic Testing (RT)

TG6 – Ultrasonic Testing (UT)



Thank you!





The World Organisation for NDT

**Report from the ICNDT Certification
Executive Committee (ICEC) for
GA Meeting in June 2022**

Compiled by Colin Bird. Secretary ICEC

Presented by Harold Jansen, Chairman ICEC

Contents

- ICNDT MRA Schedule 1 Members
- ICNDT MRA Schedule 2 Registrants
- Certification Bodies which are under renewal process
- New Certification Body Applications
- PCBA status
- Updates to OP18 and OP20
- EQB Progress and New Owners

ICNDT Multilateral Recognition Agreement (MRA) - Current Status of Schedule 1

47 National Societies/Institutes, which are Members/Associate Members of ICNDT have signed the ICNDT MRA Schedule 1:

Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, China Taiwan, Colombia, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Iran, Israel, Italy, Japan, Kazakhstan, Lebanon, Malaysia, Mexico, Morocco Netherlands, New Zealand, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovakia, South Africa (SAINT & SAIW), South Korea, Spain, Sri Lanka, Switzerland, Turkey, Ukraine, UK and Uzbekistan.

They have *thereby* agreed to promote the recognition of the certification awarded by the Personnel Certification Bodies (PCBs) which are registered with ICNDT under Schedule 2.



ICNDT Multilateral Recognition Agreement (MRA) - Current Status of Schedule 2

*21 Personnel Certification Bodies (PCBs) are registered with
the ICNDT MRA Schedule 2*

IRAM Argentina,
AINDT Australia,
ABENDI Brazil,
ChSNDT China,
IMENDE Mexico,
Inspecta Sertifiointi Finland,
ISNDT India
KSNT Korea
DoS Malaysia,
NDTSS Singapore,
NCNDT Sri Lanka.

PCN UK,
RELACRE Portugal
RTC Russia,
SAIW Certification South
Africa,
SECTOR Cert Germany,
NDT Society Taiwan
TUV Nord Czech, s.r.o.
TWI, UK
UDT-CERT Poland,
Ukr-SRINDT Ukraine



ICNDT Multilateral Recognition Agreement (MRA)- Recent Changes to Registrations

Recent new registrations to MRA Schedule 2 (Personnel Certification Bodies)

- | | |
|--------------|---------------|
| ■ Taiwan | January 2021 |
| ■ KSNT Korea | February 2021 |
| ■ ISNT India | August 2021 |

Recent renewals of registration to MRA Schedule 2 (PCBs)

- | | |
|-----------------|--------------|
| ■ China | July 2021 |
| ■ South Africa | January 2022 |
| ■ ABENDI Brazil | January 2022 |

***2021/22 was a good year for ICEC MRA review teams.
THANK YOU for your hard work and dedication***

ICNDT Multilateral Recognition Agreement (MRA)- Other activities

Schedule 2 Applications in Progress

- IRAM Argentina
- TÜV NORD Czech

Schedule 2 Continuity Check (Form C)

- All MRA Schedule 2 members have completed form C and have registered their continuity of registration.

ICNDT Conformity Assessment of Personnel Certification Bodies (OP20)

- In situations where independent accreditation of PCBs is not available or considered sufficient, ICNDT may offer a conformity assessment to support an application for registration under the MRA Schedule 2.
- China used the OP20 route during 2021.
- RTC Russia is currently using the OP20 Route
- OP20 has been amended to take into consideration remote audits where international travel has been restricted.

ICNDT Examination Question Bank (OP23)

- A further two Examination Question Banks have been issued.
- ISNT India
- IMENDE Mexico
- The current EQB delivery method via the sale of a complete memory bank is being considered by the ICEC.
- Two considerations are being made.
 - **The replacement of the single delivery in digital format to delivery via an on-line platform.**
 - **The renewal and updating of the current questions to keep pace with updated and new inspection methods**



The World Organisation for NDT

International Institute of Welding

Report to GA

15th June 2022

Alexander MULLIN

MoU with IIW

ICNDT has signed the Memorandum of Understanding with International Institute of Welding in 2017 at the IIW Annual Assembly in Shanghai, China

Welding and NDT collaboration



IIW President Marquis (right) and Sajeesh Kumar Babu representing ICNDT signing a MOU between the two organisations

IIW Members gathered for the GA also witnessed the historic signing of a Memorandum of Understanding (MOU) between IIW and the International Committee for Non-Destructive Testing (ICNDT) represented by Ir. Sajeesh Kumar Babu. The MOU will generate greater cooperation between the two organisations which have a common interest in weld quality conformance. In particular this could contribute significantly to the work of IIW Commission V Non-destructive Testing and Quality Assurance of Welded Products.

What is IIW?

The International Institute of Welding (IIW) was founded **in 1948** by the welding institutes or societies of 13 countries that considered it crucial to make more rapid scientific and technical progress possible on a global basis.



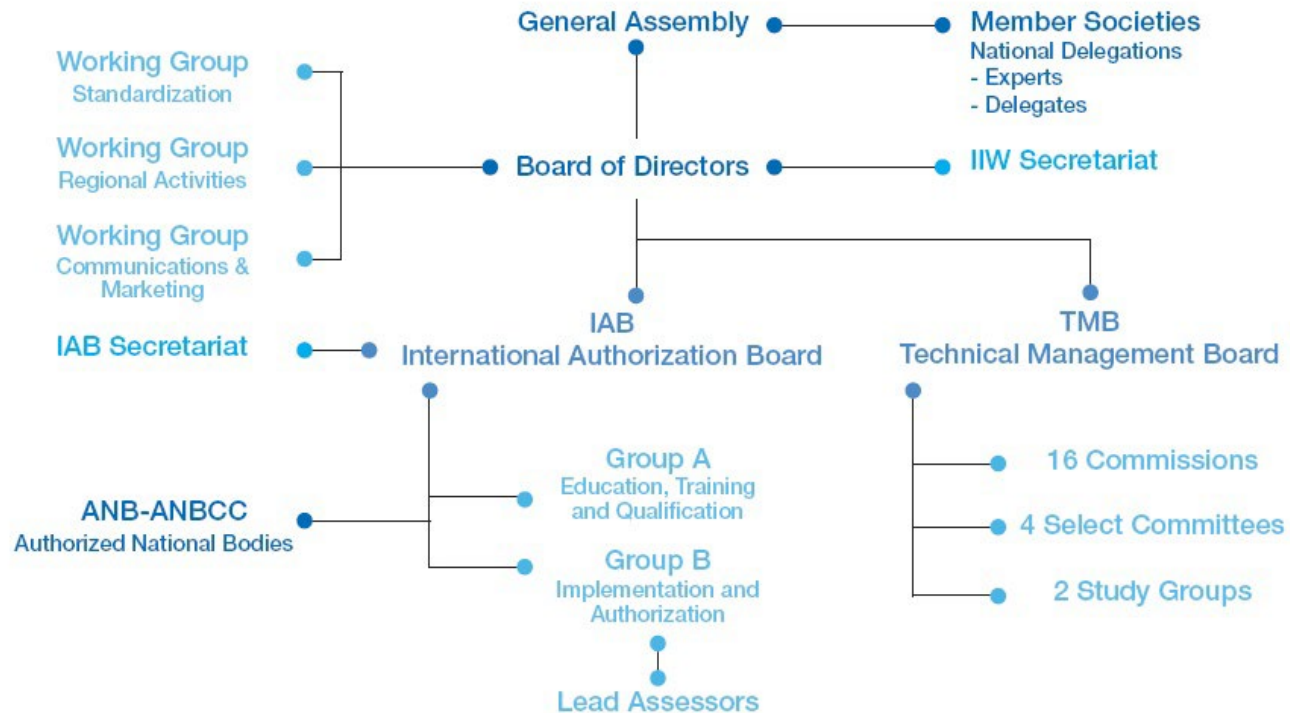
The IIW membership today comprises welding associations from **49 countries** worldwide, with ever more nations continually indicating interest.

Vision

The leading global community linking industry, research and education to the advancement of welding and joining for a safer and sustainable world



What is IIW?



IIW Commission V

C-V NDT and Quality Assurance of Welded Products

Terms of reference

Commission V has the challenging task of monitoring, reviewing and contributing to all international standardization activities related to non-destructive testing (NDT) and evaluation of welded structures.

Recent successes of the Commission include: publication of ISO standards in the areas of phased array calibration block design, metal magnetic memory and guided wave testing; publication of digital reference radiographs; publication of Booklets in the areas of validation of NDT simulation, model assisted probability of detection studies and structural health monitoring.



MAIN CONTACT

Marc
Kreutzbruck

GERMANY

MAIL CONTACT

SUB WORKING UNITS

01. C-V-A Radiographic based weld inspection techniques
02. C-V-C Ultrasonic based weld inspection techniques
03. C-V-D Structural health monitoring
04. C-V-E Weld inspection based on Electric, magnetic and optical techniques
05. C-V-F NDT Reliability Including Simulation of NDT Techniques

The 75th IIW Annual Assembly and International Conference 17-22 July 2022 | Tokyo, Japan

Procedure for Hybrid Meeting

In principal, the physical meeting is requested.

Alternatively, you may attend the meeting with Zoom-webinar and Online voting system at a local time.
The contents of the meeting will be recorded by Zoom system and be watched by On Demand Broadcasting later.

Q.&A. will be available by e-mail via ODB system.

Schedule at Glance

Wednesday ~ Friday 13 July ~ 15 July	Saturday 16 July	Sunday 17 July	Monday 18 July	Tuesday 19 July	Wednesday 20 July	Thursday 21 July	Friday 22 July
		IIW General Assembly	IC-Keynote Speech	IAB-A	IAB-B	IAB Board	IIW Administrative Meetings
		YP-Ice Breaking Session	IC-Sessions	IAB-B		IAB MM	TMB Meeting *3
Collaborative Expo Corner in JIWS *2		IC (International Conference) Opening	IC-WU's Panel Discussion	Technical WU's	Technical WU's	Technical WU's	BoD Meeting *3
	BoD Meeting *3	IC-Keynote Speech	Technical WU's	National Delegation Meeting	National Delegation Meeting	National Delegation Meeting	
		Opening Ceremony		BoD's Dinner *3	Closing Ceremony		
		Welcome Reception	Japan Evening	YP (Young Professional)'s Evening	Gala Banquet		

IC: International Conference

WU: Working Units

IAB: International Authorization Board

BoD.: Board of Directors

Thank you!





The World Organisation for NDT

**ICNDT WG5:
Radiation Protection &
Safety**

ISEMIR-IR

- ISEMIR is the acronym for the Information System on Occupational Exposure in Medicine, Industry and Research.
- ISEMIR-IR is a web-based tool for non-destructive testing companies carrying out industrial radiography (IR). ISEMIR-IR is developed as a tool for regular data collection and analysis of occupational doses for individuals in IR, and for the use of this information to improve occupational radiation protection.
- It assists IR facilities in benchmarking their arrangements in radiation protection and safety, and hence in promoting of, implementation of optimisation of occupational radiation protection.

WG5: Radiation Protection & Safety

- New impetus in promoting ISEMIR-IR and encouraging completion of the surveys.
- WG5 basically consists of the ISEMIR WG members:
David Gilbert (UK); Charlotte Kaps (Germany); Richard van Sonsbeek (Netherlands); Francisco Da Silva (Brazil), Alan Brady (Canada) and Xiaotao Wang (China)
Others are invited:
Dr. Erik Malta (Netherlands); Ezio Tuberosa (Italy)
More please! Hope to hold meeting at WCNDT.
- A consultancy meeting was held 16 - 18 May 2022 at IAEA in Vienna. D Gilbert was assigned chair.

Objectives of the Meeting:

- To review the activities of ISEMIR-IR in 2021
- To propose the work plan for ISEMIR-IR in 2022
- To review the questionnaires and approaches for the Global survey on ISEMIR-IR in 2022
- To discuss on the upgrade on the ISEMIR-IR system
- Administrative arrangements and guidance on COVID-19

Current Status and Annual Progress Report

Result of the Second Global Survey: Responses from:

- 46 Regulatory Bodies
- 284 NDT companies from 42 countries

Based on the responses, 5 common shortcomings identified:

- No proper use of survey meters;
- No proper warning system to prevent entry to the work site;
- Poor emergency preparedness;
- No proper use of alarm systems;
- Dose rate at the boundary for the work site not within limits set.



Other topics discussed and Conclusions

- ISEMIR-IR database – Current Issues and Challenges
- National Contact Person (NCP) Status
- ISEMIR-IR Global Survey 2022
- Group member presentations
- Upgrading ISEMIR-IR
- Promoting the use of ISEMIR-IR
- Discussion of the Company Dataset
- Discussion of the Personal Dataset
- Future Actions and Workplans

Overall Conclusions

- The upgrade of the ISEMIR system is a large project within the IAEA and possible adjustments have been proposed regarding the questionnaire and the database.
- The global survey questionnaire was reviewed and updated, approaches identified, and deadlines were set.
- Issues with the registration process were discussed and recommendations were made.
- Promotion remains a challenge, cooperation with experts is needed to promote the system, and the action aims to drive the progress forward.

Conclusions

- Almost two-thirds of the responding NDT companies are interested in free software provided by the IAEA.
- More needs to be done to raise the awareness and promote the benefits of ISEMIR-IR.
- The majority of the responding NDT companies are willing to share information with the IAEA through ISEMIR-IR, and about 50% of the companies would like the IAEA to create an ISEMIR-IR account for them.

3rd International Conference on Occupational Radiation Protection

5 – 9 September 2022, Geneva

- First conference in 2002 – International Action Plan on Occupational Radiation Protection (IAPORP) – beginning of the ISEMIR platform

Objectives:

- To develop a proposal for actions leading to an improved global occupational radiation protection system
- Exchange information and experience
- Review technical and regulatory advances, challenges, and opportunities
- Formulate conclusions and recommendations

Programme and status:

- 12 Topical sessions with poster viewings, 5 Round Tables
- Young Professionals Round Table





The World Organisation for NDT

**ICNDT WG5:
Radiation Protection &
Safety:
Workshop at WCNDT 2024**

Thank you