



The World Organisation for NDT

Annual Report 2021

ICNDT is formally registered as a legal association in Vienna in accordance with the Austrian Corporations Act and has a bank account to conduct financial business transactions.

The constitution meets the requirements of the Austrian Corporations Act.

As an incorporated body, ICNDT is required to submit its Annual Report and audited Financial Report to the relevant Austrian authorities.

This is the Annual Report for 2021.

Vision and Mission

Our Vision

To create a safer world through wider use of non-destructive testing (NDT) and diagnostic technologies.

Our Mission

To lead a global network of NDT societies and their regional groups devoted to the promotion of the development of the science and practice of NDT for the benefit of the public worldwide.

Introduction

The operations of the International Committee for Non-Destructive Testing (ICNDT), its regions and its member NDT societies continue to be impacted by the COVID-19 pandemic, but by admirable innovation and adaptation they have succeeded in maintaining their important activities. The biggest impact has been the further postponement of the 20th World Conference on Non-Destructive Testing (WCNDT), which was due to be held in South Korea in June 2020 and is now scheduled for 27-31 May 2024.

Following the postponement of the 20th WCNDT due to the COVID-19 situation, it was necessary to make alternative arrangements for some of the ICNDT business that is normally conducted every four years at the World Conference.

In accordance with the ICNDT Constitution, a General Assembly (GA) should be held at the World Conference. At the GA, the ICNDT Officers (Chair, General Secretary and Treasurer), the Secretariat and the Auditors are elected. The GA also decides on the venue of the next but one World Conference (in this case the 22nd).

The ICNDT Executive Committee (IEC) discussed what should be done and recommended the following:

- The GA meetings should be postponed until the 20th WCNDT.
- The current office bearers, Secretariat and Auditors should remain in office until the GA is held at the 20th WCNDT.
- The decision on the 22nd WCNDT should be postponed until the GA is held.
- The presentation of the ICNDT Awards should be postponed until the 20th WCNDT.

Since these recommendations are outside the normal constitution, it was necessary to ask for approval of them by the full membership of ICNDT. In accordance with the Constitution (paragraph 8.1), a quorum of one third of the voting membership and a simple majority of the votes cast was required. Each Full Member had one vote. A period of four weeks was allowed for voting via email ballot, with a deadline of 22 May 2020. The members gave unanimous approval. At the Annual Meeting on 11 February 2021, approval was given to continue these arrangements.

Meetings, Committees and Groups

Annual Meeting 2021

The Annual Meeting of ICNDT members was held online on 11 February 2021, with 32 voting members present and 13 observers. Those present included: Dr Sajeesh Babu, Chair; David Gilbert, General Secretary; Gerhard Aufricht, Treasurer; Dr Mike Farley, Past Chair and ICNDT Advisory Committee (IAC) Chair; Professor Younho Cho, President of the Korean Society for Nondestructive Testing (KSNT); and Professor Ik-Keun Park, Chair of the WCNDT Organising Committee. The Annual Report for 2020 was approved, along with the accounts for 2020 and the fees and budget for 2021, which were presented by Gerhard Aufricht. Members were given an update on the plans for the 20th WCNDT, which was at that time scheduled for February 2022.

ICNDT online General Assembly and 42nd Meeting

An online GA was held on 19 July 2021, from 10h00-15h00 BST. The meeting was chaired by Dr Sajeesh Babu, ICNDT Chair, who was present at the headquarters of the British Institute of Non-Destructive Testing (BINDT) in the UK along with David Gilbert, General Secretary. 27 voting members (including four regional representatives) and 12 observers were present.

Reports were received from the regional groups, the Working Groups (WGs) and the International Organization for Standardization (ISO).

There was discussion around the rearrangement of the 20th WCNDT to spring 2022 and the 16th Asia-Pacific Conference on Non-Destructive Testing (APCNDT) and the 13th European Conference on Non-Destructive Testing (ECNDT) to 2023.

The new ICNDT website was officially launched by Dr Mike Farley. Nine member societies gave short presentations on their activities.

The unconfirmed minutes of the meeting are available to view on the ICNDT website at: www.icndt.org/ICNDT_GA_2021_07_19_Internet_Unconfirmed.pdf

ICNDT Executive Committee (IEC)

IEC meetings were held online on 7 May and 27 November 2021. Both meetings were chaired by Dr Sajeesh Babu. In addition, several online meetings were held between the IEC and the WCNDT Organising Committee. IEC members also attended the General Assembly in July 2021 and the IAC Workshop on the Strategic Plan in October 2021.

ICNDT Advisory Committee (IAC)

Due to the postponement of the 20th WCNDT, there was no meeting of the IAC in 2020. Dr Mike Farley, IAC Chair, organised and chaired a workshop on 1 October 2021 to explore ideas for the next ICNDT Strategic Plan. The focus was on innovations that have come about because of the pandemic and how these might be followed up by ICNDT and made use of by other member societies. There were presentations from the American Society for Nondestructive Testing (ASNT), BINDT and the German Society for Non-Destructive Testing (DGZfP), along with discussions covering:

- Online branch meetings
- Online annual conferences
- Online board meetings
- Online Specialist International Group (SIG) meetings
- Home working arrangements/changed facility needs ('team spaces')
- The 'continuous virtual work' model for volunteer work
- Online conferences.

An additional idea, from Professor Herelli, Past President of the African Federation for Non-Destructive Testing (AFNDT), is to organise a meeting of individuals who specialise in providing mediation services in disputes involving NDT. These ideas will be the basis for new ICNDT actions in future strategic plans.

World Conference on Non-Destructive Testing (20th WCNDT)

The COVID-19 pandemic has continued to disrupt the plans for the 20th WCNDT. There was excellent progress to the end of November 2021, with a total of 1206 abstracts submitted and over 700 registered participants from 48 countries. Professor Younho Cho and Professor Ik-Keun Park of KSNT regularly reported any progress to the IEC and the online GA.

Recently, two physical meetings were held between the ICNDT Chair and KSNT. The meetings were held on 24 and 25 November 2021 with the Planning and Strategic Committee and the Organising Committee, respectively. A situation analysis was tabled discussing the uncertainty of the Korean government's situation regarding the opening of borders and the non-availability of a venue for the later part of 2022. These factors meant that the feasibility of making the 2022 conference accessible to all was a great challenge. Major exhibitors expressed a preference for a face-to-face meeting and were not keen on a hybrid format due to fewer interactions and exchanges, leading KSNT to take the decision to postpone the conference and exhibition until a later date. On further analysis of the various planned regional conferences, it was found that the best option was to move the conference to 2024; this would result in a cycle shift in the timing of the World Conference, which is normally held every four years. The host of the 21st WCNDT (the Asociación Argentina de Ensayos No Destructivos y Estructurales (AAENDE)) has kindly agreed to shift its conference to 2028. With approval from the KSNT Organising Committee meeting held on 16 December 2021, the conference is now rescheduled to be held from 27-31 May 2024 at the same convention centre, Songdo Conventia, Incheon, South Korea.

Several meetings and workshops were planned alongside the WCNDT – some may need to be organised virtually or alongside other regional or national conferences.

The world is recovering from the pandemic and safety and health is a top priority for ICNDT. In the meantime, more technical papers are expected to be submitted and the latest innovations will be showcased during the next WCNDT.

At the meeting of the IEC on 27 November 2021, which included representation from the four regions, it was agreed unanimously that 2024 will be kept completely free for the 20th WCNDT, *ie* there will be no regional conferences or competing national events.

Working Group 1 (Qualification and Certification)

An online meeting of WG1 was held on 21 April 2021. The following issues were discussed: WG1 membership; best practices in the implementation of ISO/IEC 17024:2012 for NDT personnel certification; the updating of the WG1 Action Plan; a report on the work of the ICNDT Certification Executive Committee (ICEC); the current situation with the revision of ISO 9712:2012 and other ISO standards related to NDT personnel qualification/certification; the updating of the *ICNDT Guide to Qualification and Certification of Personnel for NDT* to reflect the changes to ISO 9712, pressure equipment directive (PED) approval for non-European countries; and the Workshop on Certification to be held at the 20th WCNDT in South Korea.

It was decided to develop an *ICNDT Guide to Good Practice – Fraudulent Management by Personnel Certification Bodies* to prevent unfair delivery of ISO 9712 personnel certification and reduce the risk for Certification Bodies. A Task Group (TG) was established with Convener Dr Sajeesh Babu. The idea is that members that are part of Schedule 2 of the ICNDT Multilateral Recognition

Agreement (MRA) will extend their best efforts to eliminate any deviations from both ISO/IEC 17024:2012 and ISO 9712:2012 during the operation of their certification schemes. The guide will seek to provide the best practice on the following: the structure of Certification Bodies; outsourcing; the application process; use of the Examination Question Bank (EQB), practical examination; instruction writing/procedure writing; and decisions on certification. The guide will be published on the ICNDT website.

WG1 will start work on interpretation of the new version of ISO 9712 as soon as it is published.

The ICNDT Certification Executive Committee (ICEC)

Activities of the ICEC centre around the MRA, conformity assessment of Personnel Certification Bodies (PCBs) and the EQB. The ICEC, which carries out most of its work via email and the internet, held online meetings on 5 January, 25 June, 27 October and 15 December 2021.

In response to the COVID-19 pandemic, the ICEC Secretary has worked with the PCBs where necessary to maintain their registration if audits were delayed. It can now be reported that all of the ICNDT OP19-registered PCBs are fully audited and registered.

There are now 47 signatories to the MRA Schedule 1. There are 21 PCBs registered under the MRA Schedule 2, which is three more than the previous year, with a further Schedule 2 application in progress. The ICNDT register of PCBs has been extended to include MRA membership and all known PCBs have been contacted to supply data. The register has been updated to show PCBs that have made contact and updated their data and this revised register has been published on the ICNDT website.

ICEC has issued the ICNDT EQB to an additional PCB, showing the continued demand for this, and has ongoing applications for the EQB.

Present ICEC members are as follows:

- Mr Harold Jansen (Chair)
- Mr Alexander Mullin (WG1 Chair)
- Dr Norikazu Ooka (Asia-Pacific region)
- Mr Gerhard Aufricht (ICNDT Treasurer)
- *To be confirmed* (Africa region)
- Mr João Rufino Teles Filho (Pan-America region)
- Dr Matthias Purschke (Europe region).

The Secretary is Colin Bird, who can be contacted at: icec-secretary@icndt.org

Membership Committee

Members are as follows:

- Mr João Conte (Chair)
- Mr Alexander Mullin (RSNTTD, Russia) – mullin@ndt-rus.ru
- Mr David Gilbert (BINDT, UK) – david.gilbert@bindt.org
- Mr Les Dick (NZNDTA, New Zealand) – ljedick@ndt.co.nz
- Dr Matthias Purschke (DGZfP, Germany) – pm@dgzfp.de
- Mr Shohei Ooka (JSNDI, Japan) – shohei@jsndi.or.jp
- Prof Ferid Herelli (COTEND, Tunisia) – herelliferid29@gmail.com

Led by Mr João Conte, the focus of the Membership Committee has been on contact with potential new members and the formation of NDT societies in Chile and Ecuador. However, the pandemic has delayed progress. The application of the Qazaqstan Association Defectoscopy – Kazakhstan has been approved. This association is aware that it is necessary to become a member of the Asia Pacific Federation for Non Destructive Testing (APFNDT), which automatically leads into the ICNDT. A pending request still exists for the Institute of Non-Destructive Testing – Nigeria (INDTN), which will be subject to due diligence once the pandemic permits.

During the last virtual meeting of the Pan-American Federation for Nondestructive Testing (PANNDT), the committee was informed that some Latin American societies were not able to pay the ICNDT annual fee due to the hard economic situation.

Working Group 3 (Research and Education)

There were no meetings of WG3 during 2021.

The Specialist International Group on NDE 4.0 published an article about its activities in the *ICNDT Journal*.

The Specialist International Group on NDT Reliability made good progress, with an article published in the *ICNDT Journal* and a completed Action Plan.

Working Group 4 (Communications)

WG4 was planning to hold meetings at the 20th WCNDT in Seoul, South Korea, and the 16th APCNDT in Melbourne, Australia. However, there were no physical meetings due to the COVID-19 pandemic. Mr Shohei Ooka, Chair of ICNDT WG4, updated the action plans according to the ICNDT Strategic Plan created by the ICNDT Executive Committee. With his Working Group, the Chair progressed the ICNDT Photograph Competition, the renewal of the ICNDT website and a collection system for the ICNDT membership fees through the Regional Federations. In addition, a discussion took place regarding a revamped interface system for the ICNDT website that will provide more effective communication and a streamlined approach for members and users.

The *ICNDT Journal* was published twice, Volume 9 Issue No 8 in May 2021 and Volume 9 Issue No 9 in November 2021.

Working Group 5 (Radiation Protection & Safety)

Mr David Gilbert is a member of the International Atomic Energy Agency (IAEA) Working Group on ISEMIR-IR. The Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR) is an IAEA web-based information system that aims to optimise occupational radiation protection. It is divided into two topical areas in which radiation protection of workers can be a challenge:

- Interventional cardiology (IC)
- Industrial radiography (IR).

The ISEMIR-IR WG comprises the following personnel: Mr David Gilbert (UK); Ms Charlotte Kaps (Germany); Mr Richard van Sonsbeek (Netherlands); Mr Francisco Da Silva (Brazil); and Mr Jizeng Ma and Mr Guojun Yuan (both IAEA).

A virtual (Webex) meeting of the WG was held on 22 June 2021, the main objectives of which were to review and analyse the results of the global survey and discuss the strategy to promote the ISEMIR-IR system.

Mr David Gilbert presented a summary of the results of the survey at the 2021 ICNDT General Assembly. The key points were as follows:

- Two new surveys were conducted: one for regulatory bodies and one for NDT companies.
- A good number of completed questionnaires were received from NDT companies – a total of 284 from 42 different countries (of which 130 were from companies in Europe).
- Collected data included categories of data recorded, including number of individual doses, source details, accidents/incidents, number of radiographers, training records and workload (films/year).
- A total of 45 completed questionnaires were received from regulatory bodies, from 44 different countries.
- One of the main conclusions is that there is still plenty of work to do to promote the use of the database worldwide, especially in service companies.

ISEMIR is an important part of the activities but it is not the only subject covered by WG5.

WG meetings are planned to be held at the 13th ECNDT in July 2023 and the next WCNDT.

Working Group 6 (CM & Technical Diagnostics)

There have been no meetings of WG6 in 2021 but Argentina has offered to discuss all standards of ISO/TC 108/SC 5 'Condition Monitoring and Diagnostics of Machine Systems' in WG6. As that committee has a strong relationship with some aspects of asset management (there is a liaison officer between both ISO/TC committees, TC 108 and TC 251 'Asset Management'), the offer is also to discuss within WG6 the subjects of TC 251, related to condition monitoring. During December, an open discussion of an ISO/TC 108/SC 5 standard was held for the first time in the frame of this Working Group.

Professor Len Gelman and Mr César Belinco, Co-Chairs, WG6

Chair's Activities

Dr Sajeesh Babu, ICNDT Chair, attended the ICNDT Annual Meeting online due to the pandemic, then travelled to the UK to attend the 42nd General Assembly with Mr David Gilbert, General Secretary, from BINDT headquarters. During the pandemic, he delivered a video message for the 6th Iranian NDT International Virtual Conference (IRNDT 2021) and virtually participated in the NDE 4.0 Conference by presenting a joint paper with Dr Mike Farley on 'ICNDT actions on NDE 4.0'. He delivered a lecture to researchers from the Seoul National University of Technology and also delivered a lecture during the Annual Conference of KSNT. He recently provided the opening remarks virtually for the Far East NDT New Technology & Application Forum (FENDT 2021) held in Kunming, China. As the attendance at physical events was severely curtailed due to the pandemic, adoption of new means of communication was successful during 2021.

ICNDT Officers 2021:

| | |
|---|---|
| ICNDT Chair | Dr Sajeesh K Babu (Singapore) |
| ICNDT Past Chair | Dr Mike Farley (UK) |
| ICNDT General Secretary | Mr David Gilbert (UK) |
| World Conference President | Prof Younho Cho (Korea) |
| NDT Society to provide Secretariat | The British Institute of NDT (UK) |
| Treasurer | Mr Gerhard Aufricht (Austria) |
| Auditors | Mr Douglas J Marshall (Canada) and Dr Werner Schmid (Switzerland) |
| Chair – ICNDT Certification Executive Committee | Mr Harold Jansen |
| Chair WG1 – Qualification and Certification | Mr Alexander Mullin (Russia) |
| Chair WG2 – Membership | Mr João Conte (Brazil) |
| Co-Chairs WG3 – Research and Education | Prof Younho Cho (Korea) and Prof Anton Erhard (Germany) |
| Chair WG4 – Communications | Mr Shohei Ooka (Japan) |
| Chair WG5 – Radiation Protection & Safety | Ms Charlotte Kaps (Germany) and Mr David Gilbert (UK) |
| Co-Chairs WG6 – CM & Technical Diagnostics | Prof Len Gelman (UK) and Mr César Belinco (Argentina) |
| Chair WG7 – Administration | Dr Mike Farley (UK) |

Regional Group Representatives:

| | |
|--------------|------------------------|
| Africa | Dr Kamal Sahaimi |
| | Mr Harold Jansen |
| Asia-Pacific | Dr Norikazu Ooka |
| | Mr Les Dick |
| Europe | Mr Fermín Gómez Fraile |
| | Mr Alexander Mullin |
| Pan-America | Mr César Belinco |
| | Mr Neal Couture |

Strategic Planning and Organisation

A draft updated Strategic Plan was due to be presented at the Annual Meeting in 2020. However, before finalisation the COVID-19 pandemic hit and priorities changed. The IEC has continued to organise ICNDT according to the intent of the Strategic Plan but taking into account the COVID-19 situation.

Changes to the Constitution and Operating Procedures

There have been no changes to the Constitution or updates to the Operating Procedures (OPs) during 2021.

APFNDT (Asia-Pacific)

APFNDT Membership and Executive Committee

The APFNDT website can be accessed at: www.apfndt.org/index.html

The APFNDT Executive Committee (AEC) meeting was held online.

Regarding APFNDT's membership and organisation status, the current members and regional representatives are as follows:

| | |
|--|--|
| Full Members | 17 societies |
| Secondary Full Members | Three societies |
| Associate Members | Eight societies (2017-2020) |
| Regional Representative Group One | Western Asia, Central Asia, South Asia – two members |
| Regional Representative Group Two | East Asia, South East Asia – four members |
| Regional Representative Group Three | Pacific and Oceania – two members |

APFNDT Executive Committee:

| | |
|---|--------------------------------------|
| President | Dr Norikazu Ooka (JSNDI, Japan) |
| Vice President | Dr Jong Po Lee (KSNT, Korea) |
| Past President | Dr B Venkatraman (ISNT, India) |
| General Secretary | Mr Les Dick (NZNDTA, New Zealand) |
| Treasurer | Mr Kevin Smith (ASNT, USA) |
| President of the 16th Asia-Pacific Conference on Non-Destructive Testing (16th APCNDT) | Mr Paul Grosser (AINDT, Australia) |
| Auditor | Dr Sajeesh K Babu (NDTSS, Singapore) |
| Secretariat | Mr Shohei Ooka (JSNDI, Japan) |

APFNDT Board Members:

| | |
|---|--|
| Regional Representative Group One (Western Asia, Central Asia, South Asia) | Dr D J Varde (ISNT, India) |
| | Mr Alexander Mullin (RSNTTD, Russia) |
| Regional Representative Group Two (East Asia, South East Asia) | Dr Gong Tian Shen (ChSNDT, China) |
| | Dr Man Yong Choi (KSNT, Korea) |
| | Dr Takamasa Ogata (JSNDI, Japan) |
| | Prof Chih-Hung Chiang (SNTCT, Taiwan) |
| Regional Representative Group Three (Pacific and Oceania) | Mr Glenn Tubrett (CINDE, Canada) |
| | Mr Pranay Wadyalkar (AINDT, Australia) |

APFNDT Task Groups

The following seven TGs were established in order to carry out specific activities:

| | |
|-----------------------------------|--|
| TG1 Membership | Mr Kevin Smith (ASNT, USA) |
| TG2 APFNDT Journal | Prof Jung-Ryul Lee (KSNT, Korea) |
| TG3 Communications | Mr Shohei Ooka (JSNDI, Japan) |
| TG4 Education and Training | Dr B Venkatraman (ISNT, India) |
| TG5 Certification | Mr Paul Grosser (AINDT, Australia) |
| TG6 Standards | Dr Takamasa Ogata (JSNDI, Japan) |
| TG7 NDE 4.0 | Mr Pranay Wadyalkar (AINDT, Australia) |

Current Activities of APFNDT (2021)

While face-to-face meetings were not possible, the AEC met numerous times online to manage Federation activities, review OPs and conduct general business such as budgetary items. In addition, for the first time an online APFNDT GA was successfully held on 1 October 2021. Organised by the Australian Institute for Non-Destructive Testing (AINDT), the 16th APCNDT, due to be held in Melbourne, Australia, from 18-22 October 2021, has been postponed until 28 February-3 March 2023, but the event preparation is progressing as planned. Additionally, a report was given on the 17th APCNDT, due to take place in Hawaii, USA, in 2026, organised by ASNT.

TG1 met to discuss potential new members, the creation of a new membership OP and ways in which to provide support for current members. TG4 reported that traction and support for the APFNDT newsletter had been gained and, as such, three publications were issued throughout 2021. TG6 conducted a valuable survey on member society certified personnel regarding standards in use and aims to use this information for the distribution of standards to members in accordance with approved funds allocated from the budget. TG7 met several times throughout the year to discuss and plan future activities.

Future Activities for APFNDT

The AEC will continue to meet on a regular basis throughout the year and activities will be coordinated through the TGs. In particular, those TGs with approved budget items, such as TG2 and TG6, will work to develop and implement their proposals. TG1 will continue to develop support for current members, new members and drafting a new membership OP. TG4 will continue collaborating with ICNDT WG4, distributing the newsletters and developing the APFNDT website, online payment system and membership directory.

Furthermore, APFNDT will work to revitalise all the activities of the TGs and promote cooperation with external organisations, such as ISO/TC 135 standardisation activities, the IAEA's NDT projects and continuing work with the Asian Welding Federation (AWF) in the field of NDT regarding welding.

For the next meeting, depending on the COVID-19 situation, the AEC and Board plan to meet at the 20th WCNDT to discuss regional matters of the Federation.

AFNDT (Africa)

During 2021, the African Federation of NDT (AFNDT) has mostly focused on national activities, with very little focus on regional activities.

| | |
|---|---------------------------------------|
| President | Dr Kamal Sahaimi (COMEND, Morocco) |
| Executive Secretary | Mr Harold Jansen (SAIW, South Africa) |
| Countries/Full Members | Algeria (CRTI) |
| | Angola (CTN) |
| | Cameroon (Hydrac) |
| | Ghana (GAEC) |
| | Kenya (KEBS) |
| | South Africa (SAINT) |
| | Sudan (SSNDT) |
| | Tunisia (CETIME) |
| | Morocco (COMEND) |
| Libya (Welding Center Tripoli) | |
| Affiliate Member and Secretariat | South Africa (SAIW) |

With the onset of the COVID-19 pandemic and the adoption of digital platforms to facilitate meetings, a more active approach to regional corporation was initiated during two successful meetings held on 7 and 16 December 2021. Representatives from Uganda, Ghana, Nigeria, Sudan, Tunisia, Cameroon, Mauritius and South Africa took part during these meetings.

The objectives of these meetings were to address modifications required to the current constitution that was adopted in 2014, as well as means to increase participation in the Regional Federation.

The outcomes of these meetings were as follows:

- Proposed amendments to the constitution were to be collated and discussed during a meeting scheduled for 27 January 2022, followed by the finalisation of the revised constitution, tabling it for final adoption during an AGM planned for April 2022.
- The objective of contacting all 54 countries in the AFNDT region and encouraging active participation was supported.

EFNDT (Europe)

During 2021, the European Federation for Non-Destructive Testing (EFNDT) carried out many different actions, despite the situation facing all societies due to the COVID-19 pandemic. The Board of Directors (below) met several times online during the year.

| Board of Directors Members | |
|--|-------------------------------------|
| President | Mr Fermín Gómez Fraile (Spain) |
| Vice President | Mr Alexander Mullin (Russia) |
| Treasurer | Mr Etienne Martin (France) |
| Directors | Professor Anton Erhard (Germany) |
| | Dr Yordan Mirchev (Bulgaria) |
| | Mr Jan Verkooijen (The Netherlands) |
| | Professor Michele Carboni (Italy) |
| | Dr Pavel Mazal (Czech Republic) |
| | Mr Bento Otonne Alves (Portugal) |
| | Mr David Gilbert (UK) |
| Co-opted Members (non-voting) | |
| | Mr Gerhard Aufricht (Austria) |
| | Mrs Dominique Moussebois (Belgium) |
| Ex-Officio Members (non-voting) | |
| General Secretary | Dr Emilio Romero (Spain) |
| Past President | Professor Peter Trampus (Hungary) |
| ECNDT 2023 President | Mr Bento Otonne Alves (Portugal) |
| ECEC President | Dr Matthias Purschke (Germany) |
| Auditor | Mr René Klieber (Switzerland) |

EFNDT Matters

EFNDT has redefined the ten Working Groups and three Forums and these have started their work through virtual meetings and conferences. These ten groups and three forums are as follows:

- WG1 – Education
- WG2 – Radiation Protection and ADR
- WG3 – Condition Monitoring
- WG4 – Laboratory Accreditation
- WG5 – NDT for Public Safety and Security
- WG6 – NDT on Additive Manufacturing (two meetings)
- WG7 – Failure Analysis (Risk Analysis) (one meeting together with ICNDT)
- WG8 – Human Factors
- WG9 – Ethics (internal work with some associations)
- WG10 – NDT 4.0 (six meetings, one conference hosted by DGzFP and an international conference planned in Spain for aerospace NDT (AEROEND 4.1))
- Forum for European National Aerospace NDT Boards (NANDTBs) (two meetings and development of EN 4179)
- Forum for Railway Industries
- Forum for Marine (preparing underwater inspection specifications; contact with the International Association of Classification Societies (IACS)).

Additionally, a Working Group with the European Welding Federation (EWF) has been reactivated to complete the European NDT Engineer proposal (two meetings in 2021).

An agreement has also been reached with the TIC Council Confederation of Inspection and Certification Organisations to work together on WG6 and WG10 matters.

Projects and Actions

Robotics for Inspection and Maintenance (RIMA) is a four-year EU Horizon 2020 project that aims to establish a network of 13 Digital Innovation Hubs (DIHs) on robotics, sharing best practices and providing services to facilitate uptake of inspection and maintenance technologies. The RIMA network encompasses leading research organisations supporting one DIH per region, aligned with regional policies and industry sectors and sectorial associations that will make a bridge with end-users and industries. EFNDT is in the process of establishing whether or not its members wish to participate.

Other Matters

The EFNDT General Assembly held recently was divided into two parts. A Task Group led by Mr Alexander Mullin, EFNDT Vice President, prepared a revision and update to the EFNDT statutes to be discussed at the General Assembly on 10 December 2021. This was submitted for approval at an Extraordinary Assembly on 17 January 2022.

Brexit

EFNDT has had two extraordinary meetings to analyse the situation due to Brexit in relation to the European PED 2014/68/EU.

BINDT has agreed a process with an EU27 Recognised Third-Party Organisation for the certification of NDT personnel. This process is fully compliant with CEN/TR/15589 Route B requirements and allows BINDT/PCN to issue certifications that are acceptable under the PED.

ECNDT

The Organising Committee of the next ECNDT had several meetings with the President and Secretary of EFNDT and recommended to the Board of Directors (BoD) that the dates for the 13th ECNDT should be rescheduled to 3-7 July 2023 in Lisbon, Portugal, due to the postponement of the 20th WCNDT and after consultation with the Lisbon Exhibition Centre and the professional conference organisers, sponsors and exhibitors. This recommendation was approved by the BoD.

IAEA-ARCAL PROJECT

On 18 May 2021, a webinar was held with some South American countries, Italy and Spain, focusing on their certification schemes. EFNDT will make a presentation of its activities and projects in order to invite these countries to disseminate it.

Mr Fermín Gómez Fraile, EFNDT President

PANNDT (Pan-America)

Current members of the Pan-American Federation for Nondestructive Testing (PANNDT) are as follows:

| | | |
|-------------------|--------------|--|
| Argentina | AAENDE | Asociación Argentina de Ensayos No Destructivos y Estructurales |
| Bolivia | ASBOSENDIC | Asociación Boliviana de Soldadura, Ensayos No Destructivos, Inspección y Corrosión |
| Brazil | ABENDI | Associação Brasileira de Ensaio Não Destrutivos e Inspeção |
| Canada | CINDE | Canadian Institute for Non-Destructive Evaluation |
| Chile | ACHISEND | Asociación Chilena de Soldadura Inspección y Ensayos no Destructivos |
| Colombia | ACOSEND | Asociación Colombiana de Soldadura y Ensayos No Destructivos |
| Costa Rica | – | Instituto Tecnológico de Costa Rica |
| Ecuador | ESPOL | Escuela Superior Politécnica del Litoral |
| USA | ASNT | American Society for Nondestructive Testing |
| Mexico | IMENDE A.C. | Instituto Mexicano de Ensayos No Destructivos, A.C. |
| Mexico | AMEXEND A.C. | Asociación Mexicana de Ensayos no Destructivos Asociación Civil |
| Peru | APEND | Asociación Peruana de END |
| Uruguay | AENDUR | Asociación Uruguaya de Ensayos No Destructivos |

The current PANNDT Board is as follows:

| | |
|-------------------|---------------------------------------|
| President | Mr João Conte (ABENDI, Brazil) |
| Vice Chair | Mr David Bajula (ASNT, USA) |
| Treasurer | Prof Jorge Amsler (AAENDE, Argentina) |
| Secretary | Mr Glenn Tubrett (CINDE, Canada) |

The PANNDT Strategic Plan is being reviewed by the Board and the next PANNDT Conference is scheduled for June 2023, in Niagara Falls, Ontario, Canada.

PANNDT members held a virtual meeting in June 2021, while the Board held two virtual meetings (in May and October 2021). At these meetings, representatives gave an overview of their activities as well as the best practices on changing to online training, examinations applications, etc.

MRA, PCB and EQB

Multilateral Recognition Agreement (OP19)

- There are currently 47 signatories to Schedule 1 of the MRA. See: <https://bit.ly/3HrPsmH>
- There are currently 21 PCBs registered under the MRA Schedule 2, an increase of three during 2021. The latest registrations are Korea, China Taiwan and India. See: <https://bit.ly/32Uq1eJ>

Personnel Certification Body Compliance Assessment (OP20)

- China re-registered under OP20 in 2021.

Examination Question Bank

- The maintenance and longer-term development of the EQB remains under discussion and it is hoped that an online delivery system may be facilitated in the future. A demonstration of an online EQB has now been provided by the Southern African Institute of Welding (SAIW), South Africa.
- The EQB was issued to the Instituto Mexicano de Ensayos No Destructivos (IMENDE), Mexico, in 2021.

ISO/TC 135

The in-person meetings of ISO/TC 135 committees planned for the days following the 20th WCNDT in Seoul, June 2020, were postponed. ISO/TC 135 and SC's meetings were held online from 11 to 22 October 2021 to develop related standards, with reports on those activities of 2019 and 2020. An online meeting of ISO/TC 135 Plenary was held on 22 October 2021 led by Dr Norikazu Ooka (JISC) for the last time as the Chair of ISO/TC 135. ISO/TC 135 resolved to hold the next meeting with ISO/TC 135 and all SCs at the 20th WCNDT in Korea as a face-to-face and/or hybrid meeting with the advice from ISO Central Secretariat due to the COVID-19 situation.

Online meetings of ISO/TC 135/SC 7 were held on 18 October 2021 in conjunction with other ISO/TC 135 meetings to report one of the main activities of the ISO 9712 FDIS following the ballot which was closed on 16 November and as a result of this the new standard was published. Dr Mike Farley and Dr Sajeesh K Babu participated as liaison members of ISO/TC 135 on behalf of ICNDT.

Website/Journal/Publications

The ICNDT Secretariat has continued to provide updates to members through the website and the *ICNDT Journal*.

ICNDT is delighted to have overseen a transition to a much more attractive and versatile website, courtesy of an agreement with the Japanese Society for Non-Destructive Inspection (JSNDI). Mr Shohei Ooka, JSNDI, organised the new website using the same contractor that the Japanese Society uses for its own website. The work has been completed satisfactorily and data and documents from the old website have been transferred over (see www.icndt.org). Under the agreement, ICNDT paid a financial contribution to the cost of the new website and JSNDI has agreed to cover the maintenance and service costs going forward.

ICNDT is grateful to DGZfP for previously providing the platform for the ICNDT website and to BINDT, especially Zoe White and Cindy Bailey, for updating and maintaining the previous website.

Finance

The audited financial report for 2021 and the budget for 2022 are shown in the following pages.

Acknowledgements

ICNDT wishes to thank its Executive Committee, Committees and Working Groups for their efforts during 2021 and acknowledges the support of the Secretariat provided by BINDT. Thanks are also reiterated to the 20th WCNDT Organising Committee, particularly particularly Professor Ik-Keun Park, Conference Chair, and Professor Younho Cho, WCNDT President, for their efforts in dealing with the complexities of organising and rearranging the 20th WCNDT.

All volunteers working for their NDT societies have again faced extra challenges this year and this work is much appreciated. It is vital to continue to create a safer world through wider use of NDT and diagnostic technologies.

Dr Sajeesh K Babu, Chair, ICNDT

| Balance at 31.12.2021 | | |
|--|-------------------|------------------------|
| | 2021 | 2021 |
| | Income (€) | Expenditure (€) |
| Opening balance | 133,260.12 | |
| Donation from Austrian Chamber of Commerce | 500.00 | |
| Donation from WCNDT | 0.00 | |
| Membership fees (new fee structure) | 10,575.19 | |
| Bank account Nr: 290-317-995/01 – interest | 13.54 | |
| PCB CA service (OP20) | 0.00 | |
| MRA Service (OP19) | 3300.00 | |
| EQB product: application fees (OP23) | 0.00 | |
| EQB update fees (OP23) | 0.00 | |
| Meeting expenses/Go to meetings | | 0.00 |
| Bank account Nr: 290-317-99501 – cost | | 326.28 |
| Bank expenditures for incoming fees | | 66.10 |
| Printing costs | | 0.00 |
| Office costs | | 235.75 |
| PCB CA service costs (<i>system administration, insurance</i>) (OP20) | | 1924.06 |
| MRA/PCB – auditor payment (OP19) | | 2960.00 |
| EQB service costs (<i>administration and overheads</i>) (OP23 contingencies) | | 363.71 440.00 |
| Professional service | | 2760.00 |
| Preparation of ICNDT monographs | | 0.00 |
| Supplies (<i>ICNDT badges, flags, etc</i>) | | 0.00 |
| Miscellaneous (<i>shipping, conference calls</i>) | | 0.00 |
| Total | 147,648.85 | 9075.90 |
| Allocation to reserves (31.12.2021) | | 138,572.95 |

Gerhard Aufricht, Treasurer, 3 January 2022, Vienna. Rev 1.

Financial Report – Draft Budget 2022

| | Income (€) | Expenditure (€) |
|---|-------------------|------------------------|
| Opening balance (01.01.2022) | 138,572.95 | |
| Donation from Austrian Chamber of Commerce | 500.00 | |
| Donation from WCNDT | 0.00 | |
| Membership fees 2022 | 22,792.00 | |
| Membership fees 2021 (EFNDT) | 9224.00 | |
| Bank account Nr: 290-317-995/01 – interest | 30.00 | |
| PCB CA service (OP20) | 1000.00 | |
| MRA service (OP19) | 5400.00 | |
| EQB product – application fees (OP23) | 3750.00 | |
| EQB update fees (OP23) | 600.00 | |
| Meeting expenses/Go to meetings | | 1500.00 |
| Bank account Nr: 290-317-995/01 – cost | | 300.00 |
| Bank expenditures for incoming fees | | 50.00 |
| Printing costs | | 2000.00 |
| Office costs | | 2000.00 |
| PCB CA service costs (system administration, insurance) (OP20) | | 2000.00 |
| MRA/PCB – auditor payment (OP19) | | 6400.00 |
| EQB service costs (administration and overheads) (OP23 contingencies) | | 2500.00 |
| Professional service | | 3840.00 |
| Preparation of ICNDT monographs | | 0.00 |
| Supplies (ICNDT badges, flags, etc) | | 2000.00 |
| Miscellaneous (shipping, conference calls) | | 500.00 |
| Website upgrade | | 25,000.00 |
| Total | 181,868.95 | 48,090.00 |
| Allocation to reserves (31.12.2021) | 133,778.95 | |

Gerhard Aufricht, Treasurer, 3 January 2022, Vienna. Rev 1.

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