Notes on a meeting of EFNDT Working Group 10 – NDE 4.0

Date: 19 March 2021
Location: Zoom

Present:
Johannes Vrana – DGZPF (chair) – Germany
Bento Alves – RELACRE – Portugal (BA)
Nick Brierley – BINDT – UK (NB)
Serge Dos Santos – COFREND – France (SDS)
Luigi Ferrigno – AIPnD – Italy (LF)
David Gilbert – EFNDT (DG)
Johan Hansson – Sandvik – Sweden (JH)
Raphael Martinez-Oña – AEND – Spain (RMO)
Christophe Reboud – COFREND – France (CR)
Vladimir Syasko – RSNTTD – Russia (VS)
Antonello Tamburrino – AIPnD – Italy (AT)
Peter Trampus – MAROVISZ – Hungary (PT)
Bernd Valeske – DGZFP – Germany (BV)
Iikka Virkkunen – fiNDT – Finland (LV)
Martin Wall – HOIS/BINDT – UK (MW)
Casper Wassink – KINT – Netherlands (CW)

Apologies:
C Leroux – CEA – France
Meeting slides (PDFs appended hereto)

Agenda:

1. Adoption of the agenda
2. Report on DGZfP activities in NDE 4.0 – B Valeske
3. Report on RIMA project – P Trampus
4. News from ICNDT SIG and national societies – J Vrana/All
5. Liaison with other groups – J Vrana/All
6. Topics – J Vrana/All
7. Scheduling of next meeting(s)

NB: Horizon presentation carried over until next meeting

The Chair, Johannes Vrana, opened the meeting and welcomed new member – Johan Hansson, who introduced himself briefly.

1. **Adoption of the agenda**
   
   The agenda was adopted as above, noting presentation on Horizon Framework to be carried over until next meeting.

2. **Report on DGZfP activities in NDE 4.0**
   
   Bernd Valeske presented an interesting slideshow on NDE 4.0 activities at the German Society for NDT (DGZfP) – copy appended.

3. **Report on RIMA project**
   
   Peter Trampus presented an update on the RIMA project (Robotics for Inspection and Maintenance) – copy appended.

4. **News from ICNDT SIG and national societies**
   
   Chair provided a report on ICNDT activities in this area. The ICNDT Special Interest Group (SIG) is working on formulating a list of topics to be covered at the ICNDT level, with consideration also for the regional and national levels. There is some overlap but this is not critical.

   Chair also updated the group on the status of the NDE 4.0 Conferences. All progressing well (see [https://2021.nde40.com/](https://2021.nde40.com/)) and several national societies would be presenting status reports.
5. **Liaison with other groups**

NB reported that he had lined up two speakers from other organisations for the next meeting (May 2021):

(i) Digital Metrology Standards Consortium (DMSC). Representative will speak on NDT aspects of their work

(ii) Rolls-Royce plc. Representative will speak on ethical concerns in Industry 4.0.

6. **Topics**

VS suggested development perspectives in Industry 4.0 (basic architecture) needed to be looked at, in particular standardisation for NDE.

This and other ideas were listed:

(i) EU funding
(ii) Data formats
(iii) Ethics and AI
(iv) Standardisation

DG recommended EFNDT BoD should be consulted regarding proposed activities in (i).

A ballot was conducted on existing topics and this resulted in the following listed in order of priority:

1. Research proposals
2. Defining values/European concerns regarding Industry/NDE 4.0
3. Lobbying
4. Definitions of terminology
5. Training and certification

There was some discussion on priorities and topics.

7. **Next meetings**

The next meetings were scheduled for 21 May 2021 and 23 July 2021. Start time and joining instructions TBA.
Annex 1: action items

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Action</th>
<th>Assigned too</th>
<th>Status/Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Contact Peter Trampus regarding making a presentation on the RIMA project</td>
<td>Casper Wassink</td>
<td>Complete</td>
</tr>
<tr>
<td>2.</td>
<td>Contact CEN/TC138 regarding their activities on NDT 4.0</td>
<td>Johannes Vrana</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3.</td>
<td>Create a link to metrology organizations, in particular DMSC and EMBC</td>
<td>Serge Dos Santos, Nick Brierley and Luigi Ferrigno</td>
<td>Complete</td>
</tr>
<tr>
<td>4.</td>
<td>Create a link to the TIC council</td>
<td>Johannes Vrana</td>
<td>Complete</td>
</tr>
<tr>
<td>5.</td>
<td>Create a link to organizations of computer scientists regarding industry 4.0</td>
<td>Antonello Tamburrino and Nick Brierley</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6.</td>
<td>Create a link to organizations regarding Industry 4.0</td>
<td>Johannes Vrana</td>
<td>Ongoing</td>
</tr>
<tr>
<td>7.</td>
<td>Create a link to aerospace industry 4.0 groups</td>
<td>Martin Wall and Fermin Gomez</td>
<td>Ongoing</td>
</tr>
<tr>
<td>8.</td>
<td>Create a link to HOIS</td>
<td>Martin Wall</td>
<td>Ongoing</td>
</tr>
<tr>
<td>9.</td>
<td>Create a link to the EFNDT WG on additive manufacturing (WG 6)</td>
<td>Not assigned</td>
<td>Ongoing</td>
</tr>
<tr>
<td>10.</td>
<td>Create a link to the EFNDT/EWF working group on NDT engineer</td>
<td>Bento Alves</td>
<td>Ongoing</td>
</tr>
<tr>
<td>11.</td>
<td>Create a link to the EFNDT working group on ethics in NDT (WG 9)</td>
<td>Michele Carboni</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>