



## **Minutes**

### **ESARDA TKM WG meeting**

**Meeting:** 09:30 – 12:30, Dec 6th, 2019, Building 101 / Room 2302, JRC Ispra

**Participants:** Pavel Gabriel (ENEN), Ricardo Rossi (SCK CEN), Sophie Grape (Uppsala Univ.), Willem Janssens (JRC, ESARDA President), Chris Picket (ORNL, INMM, invited), Matteo Gerlini (Rome Univ., invited), Zoe Gastelum (Sandia Nat. Labs., ESARDA Vice-Chair), Véronique Berthou (JRC, ESARDA secretariat) and Kamel Abbas (JRC, TKM WG Chair)

**Agenda:** attached

The meeting started with a Tour de Table. Prof. Matteo Gerlini and Gabriel Pavel were welcomed for their participation to a TKM WG meeting.

The agenda was approved with an additional point that regards the Safeguards Education and Training project funded by DEVCO and to be implemented by ENEN.

**The first part of the meeting** was dedicated to a short reminder on the successful ESARDA symposium (Stresa Mar. 2019) then Willem gave an overview on the ESARDA World Café initiative that serve the implementation of ESARDA Reflection Group 2019 (RG2019) ten priority actions. These actions aim at enhancing current safeguards and anticipating future needs. The World Café operates through discussion platforms dedicated to each of the ten actions. Willem insisted on the fact that the success of this initiative will obviously depend a lot on the participation to those discussions therefore he recommended to reach out this initiative also to external organisations in order to share different points of view and to stimulate valuable productivity out of these discussions. He counts on the engagements of ESARDA WGs and associated national or international organisations to reach objectives of the RG also through the Word Café. The first ESARDA World Café report is transmitted and accepted in the last ESARDA Executive Board. This report is produced under the leadership of Yetunde Aregbe (Ex DA WG chair). This report is posted in the ESARDA web site and also attached to the present minutes for your convenience.

A feedback on the INMM-JAEA-ESARDA Workshop held in Tokyo in Oct. 2019 and structured in several working group. The methodology of the working group 4 of the workshop on Nuclear Knowledge Retention exercise was shown by Willem. Such methodology will inspire the way forward in the implementation of the RG19 priorities.

**The second part of the meeting** was about the Safeguards project funded by DEVCO and to be implemented by ENEN. Mr. Gabriel Pavel presented the main tasks of the projects as well as the major implementation steps. The ENEN presentation is available on request. The project is already kicked off and important event are already planned for within 2020. The project includes two main activities, organisation of trainings on safeguards and experimentation of an European Master on safeguards:

A - Training activities: One and two weeks trainings

*One Week Training:* Training is to be organised on the experience of ESARDA Course and on those of the training organised by JRC in South East Asia, China and more recently in Africa (South Africa and North Africa). ESARDA offered to provide all necessary support for implementation of these single week trainings. This kind of training are easily doable. JRC offered its support for the organisation of this training and indicated that Morocco was very much in favour to host such a week training for the northern African countries and necessary contacts could be provided.

*Two Weeks Training:* This training was deeply discussed in the present TKM meeting. A possible issue of such training is attributed to the long period. In fact, this would depend on the trainees either they are students for whom time is usually not an issue or professionals for whom absents two weeks would require careful preparation and planning. The other minor issue regards the location of the training either in EU or elsewhere taking in consideration availability of training infrastructure not only for classroom lectures and table top exercises but also nuclear facilities visits.

*B - Development of a first Master Programme in Safeguards and Non-Proliferation*

As there is quasi no academic programme as such in safeguards and non-proliferation, the DEVCO-ENEN contract includes putting in place and experimentation of Master Degree. To do so, ENEN would rely on academic institutions or specialised high schools as they entitled to deliver such a diploma. Willem indicated several universities with which contacts have already been taken such as universities of Milan and Uppsala. In the present TKM WG meeting, several points for setting up such a Master were reached such as: number and origins of the Master students, time durations and the locations of the lessons (in EU or abroad) including stage in partnership with industrials. Pavel indicated that a meeting with DEVCO is planned in the coming days where all these points will be addressed to be agreed with DEVCO. Willem underlined that ESARDA will provide all support to make setting up this Master degree in Safeguards to happen. If needed, a certain number of seats can be reserved in ESARDA course for this Master in Safeguards initiative.

In the present TKM WG meeting, it was decided that ESARDA will send an official note to ENEN to express its availability to support in a way or another successful implementation of the project.

**In the third part of the meeting,** Riccardo Rossa presented the ESARDA contributions in terms of trainings in safeguards, organisation of thematic workshops and promotion of safeguards via Massive Open On-line Course (MOOC). Riccardo is in charge of the coordination of MOOCs and has indicated that unfortunately seven contributions are not yet delivered. Available MOOCs are posted in:

<https://www.youtube.com/playlist?list=PLBoj6IWqIZNFT-brkusInhHXmAzPI7cHs>

**The fourth point of the meeting** was dedicated to a short presentation on the ESARDA course 2019 held in April with a participation of 50 students. The 2019 course included for the first time new topics in its programme namely the State Level Concept (SLC) and Physical Model lectured by IAEA. Also for the first time, an App was adapted and used for the organisation of the course. Depending on available resources, it's expected to develop further this App for more functionalities to reinforce interactivity of the students during the whole week of the course. The results of the ESARDA Course 2019 exam were shown. It was underlined the very interesting subjects chosen by the students for their essays, the slides annexed to these minutes included more information of the exam 2019.

**It was reminded that the ESARDA Course 2020 will take place in Ispra in Mar. 30<sup>th</sup> - Apr. 3<sup>rd</sup>.**

**The last point of the meeting** was spent for the presentation of the work achieved for the preparation of the new edition of the ESARDA Course Syllabus. This new edition will include chapters, which are either updated (Minor or Major update) or brand new chapters. These two categories of chapters are listed in the annexed presentation. **Thanks to the fruitful collaboration with the WG chairs and with the authors of the current chapters of the syllabus, most the chapters are substantially ready.** There is an exception for Containment and Surveillance (CS) for which the Chair of the CS WG chair has indicated that the delay was due to the lack of resources however it's expected to overcome this issue by the first semester 2020. Also the SLC chapter suggested by IS WG, requires further discussion with IS WG Chair to best fit an integrated chapter with multi organisation contributions such as the contribution of IAEA. Such decision will take place earlier 2020.

The formatting of the new edition of the Syllabus has already started with the available material. Provided that both CS and SLC chapters are made available, **the new edition of the syllabus can be released in the first semester 2020.**

**For the agenda point "Sustainability of ESARDA outreach in Africa (South Africa and Algeria)",** little was discussed beside the information of the next regional safeguards course for South African Countries to be organised in Cape Town in Mar. 16-20, 2020 as a follow-up of the course organised in Centurion (Pretoria) in Feb 2018.

The meeting ended at 12:30.

**Annexes:**

- 1 - Agenda
- 2 - Word Café report
- 3 - ESARDA course and syllabus presentation

Kamel Abbas

TKM WG Chair