

Participation in the VAMAS SC-45 Online Meeting

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VAMAS was established as an international standard project for the pre-standardization of advanced materials agreed upon at the G-7 Versailles Summit in 1982. The VAMAS SC-45 online meeting in September 2020 (September 30-October 2, 2020) has been successfully completed despite the global infection with coronavirus. In order to give you a general outline of the current activities of VAMAS, we would like to present an overview of the VAMAS SC-45 Steering Committee meeting.

1. Introduction

I started to be involved in the Secretariat of the NIMS International Standardization Committee and the Secretariat of the VAMAS Domestic Committee when I was appointed to the Corporate Strategy Office three years before my retirement. I was invited by Dr. Matsunami, my predecessor, to help him as a secretariat. After my retirement, I moved from the Corporate Strategy Office to the current Competitive Funds Administration Office and the Center for Green Research on Energy and Environmental Materials, and I have continued to work there. Unfortunately, I have never been involved in the standardization itself. However, while promoting VAMAS activities as the VAMAS secretariat to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the Ministry of Economy, Trade and Industry (METI), and academic societies in the past few years, I was able to meet various people involved in standardization. I feel that I have come to understand the importance of standardization as if I were “a young monk outside the gate can read sutras he has never studied”. This time, I would like to write about the VAMAS Steering Committee meeting from the viewpoint of the secretariat.

2. Overview of the VAMAS Steering Committee Meeting

VAMAS was established as an international standard project for the pre-standardization of advanced materials,



Figure 1: Distribution of VAMAS SC-45 participants.



Figure 2: Photographs of VAMAS SC-45 participants (partial); Dr. Fujita and the author are in the upper left.

which was agreed upon at the G-7 Versailles Summit in 1982. Japan has participated in the project since its

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inception. VAMAS has been in existence for almost 40 years and has become a well-established international standard project¹⁻³⁾. The representatives from each country meet in the VAMAS Steering Committee (SC) once a year to report on the activities of each Technical Working Area (TWA) during the year, as well as on the activities of liaison organizations such as ISO TC229 (nanotechnology) and Asia Pacific Metrology Program (APMP). The regional reports of representative countries/organizations such as Australia, UK, China, Italy, Japan, the new TWA proposals, the new project proposals of each TWA, the discontinuation of inactive TWA, the approval of the venue of the next SC meeting, and the rotation of the Chair, etc. were also discussed. It is positioned as the highest decision-making body of VAMAS.

The author as one of the members of the Secretariat of VAMAS Domestic Committee of Japan attended the 43rd SC meeting held at BAM (Federal Institute for Materials Research, Berlin, Germany) from June 25 (Mon.) to June 29 (Fri.), 2018, and the 44th SC meeting held at NIST (National Institute of Standards and Technology, Boulder, USA) from May 22 (Wed.) to May 24 (Wed.), 2019, and the 45th SC meeting which is the online meeting hosted by NIST from September 30 (Wed.) to October 2 (Fri.), 2020. Figure 1 shows the distribution of the members who participated in the VAMAS SC-45 online meeting. Originally, the SC-45 meeting was scheduled to be held in Odaiba, Tokyo, Japan in May 2020. However, the Japan meeting was postponed until one year later due to the worldwide outbreak of the new coronavirus (COVID-19) since February last year. The SC-45 became the first online meeting in the history of VAMAS.

The VAMAS member states are currently composed of 14 countries + 2 regions and communities. The members

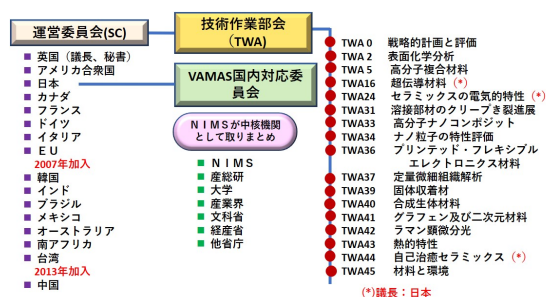


Figure 3: VAMAS organization chart (as of January 2021)

selected from each country participate in the SC meeting. Figure 2 shows photos of partial members who participated the online meeting. The organizer reported that there were 46 participants in total (the SC-44 meeting had 29 participants). 5 members from Japanese side (Chair, VAMAS Domestic Committee of Japan, Dr. Fujita (NIMS), Dr. Fujimoto (AIST), Dr. Tabuchi (NIMS), Prof. Tsurumi (TIT), and the author) attended SC-45 meeting. Due to the large time difference with the organizer NIST, we participated from Japan at 20: 00-22: 00 Japan time.

Figure 3 shows the organizational chart of VAMAS as of January 2021. For a long time, I heard that NPL (UK) and NIST (US) took turns to chair the SC, but at the time of SC-43, Dr. Pedro D. Portella of BAM (Germany) became the chair. Unfortunately he resigned after SC-43, and Dr. Michael Fasolka of NIST (U.S.A.) took over the chair and chaired SC-44 and SC-45 meetings. In SC-45 meeting, it was approved that Dr. Fernando Castro of NPL (UK) will be the Chair and Mr. Sam Gnaniah will be the Secretary.

In its long history, the TWAs themselves fluctuate, completed TWAs become missing numbers, and the TWAs are constantly evolving. Thus, TWA 2 (Surface Chemical Analysis) is one of the oldest TWAs, but it is still one of most active TWAs.

In the SC-45 meeting, Dr. Michael Fasolka proposed that TWA 0 (Strategic Planning and Assessment), should be a key element of the TWA framework which establishes a stable and responsible working organization, develops and regularly updates the VAMAS strategic plan, and periodically assesses the impact of its activities. It is proposal of TWA 0 was unanimously approved. The TWA 0 includes four projects (1) leadership engagement, 2) historical impact assessment, 3) strategic planning, and 4) database.

The TWAs that Japan are mainly leading are (1) TWA 2 (Surface chemical analysis), (2) TWA 16 (Superconductivity), (3) TWA 24 (Electrical properties of ceramics), (4) TWA 31 (Creep of welded components), and (5) TWA 44 (Self-healing ceramics). For detailed activities, please refer to this handbook.

The TWA 45 was proposed as a new TWA (Micro and Nano plastics in the Environment) at the SC-44 meeting last year. After discussions by stakeholders, it was approved to be renamed to Materials and Environment. On the other hand, the TWA 32 (Modulus Measurements) has been abolished due to recent inactivity.

The SC-45 approved that SC 46 meeting will be held in Japan in 2021 (location and schedule undecided) and in Turin, Italy in 2022.

I just hope that the new coronavirus will subside as soon as possible.

3. Summary

Every time I attend the SC Annual Meeting, I notice a few things. The first is the flexibility of TWA. For example, there are some projects on standardization of measurement methods for COVID-19-like viruses at the TWA 40 (Synthetic Biomaterials), a new project on data flow methods at the TWA 2 (Surface Chemical Analysis), and a project on measurement and evaluation methods for microplastics, a problem of marine pollution, at the TWA 45 (Materials and Environment). I am always amazed at the VAMAS's willingness to boldly challenge topics that meet social needs.

Second, veteran researchers from the U.S. and U.K. participate in the conference, but young researchers who will succeed them also participate. Looking back at our country, I am concerned about the small number of young researchers participating.

The third point is that I strongly feel that Japanese people in general (including the author) lack the skills to actively and openly express their own opinions in English on such an international stage. Most of the attendees at the Steering Committee meeting are experts in their own fields, and in general, the opportunities for Japanese researchers to speak at international conferences are much greater than they were 30 years ago, but we should learn from the negotiation skills of the Chinese delegation, who do not hesitate to make their case even with accented pronunciation. For this reason, I would like to continue to make further efforts. This is because standardization is created by human beings to improve the convenience of human society, and in the end, it is a world in which connections between people are the key.

References

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