

# IUVSTA NEWS BULLETIN



Number: 172, part 1

December 2015

Union Internationale Pour La Science, La Technique et Les Applications du Vide  
International Union for Vacuum Science, Technique and Applications  
Internationale Union für Vakuum Forschung, Technik und Anwendung

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Dear IUVSTA Colleagues,

Issue #172 was divided in two parts because of the considerable length of the submitted documents and articles. The current part 1 includes the report by the Secretary General on the ECM 121 as well as important calls, with deadlines, for activities to be completed in 2016. Part 2 will contain the remainder of the submitted articles.

The contents of Part 1 is as follows:

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Full reports on IUVSTA workshops and schools are posted on the IUVSTA web-site: [www.iuvsta.org](http://www.iuvsta.org). Organizers of IUVSTA forums, IUVSTA committees and divisions chairs are encouraged to submit reports on events of interest to the whole Union.

Regards

Ivan Petrov, [petrov@illinois.edu](mailto:petrov@illinois.edu)

IUVSTA Publications Committee Chair



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## Executive Council Meeting 121, Hotel Holiday Inn Express, Morgan Hill, CA, USA

**Christoph Eisenmenger-Sittner, [christoph.eisenmenger@ifp.tuwien.ac.at](mailto:christoph.eisenmenger@ifp.tuwien.ac.at)**

ECM 121 was held on Sunday, October 25 at the Hotel Holiday Inn Express, in Morgan Hill, CA, USA. In his report, the President of the Union, Mariano Anderle, noted that the next ECM, ECM122, would be a very important meeting where the IUVSTA Prizes, the ECM's nomination for President Elect and the venue for IVC22 would be decided upon. He asked Societies to send the relevant documentation to the Secretary General by the end of January 2016. He reminded the ECM that the nomination of President Elect was not a personal nomination but had to be made by a National Society.

The Secretary General, Christoph Eisenmenger-Sittner expressed his thanks to the Austrian Vacuum Society for organizing an excellent ECM 120. Thanks were also expressed to the American Vacuum Society for providing the excellent facilities in which ECM 121 was held as well as for the flawless organization. In addition he congratulated the AVS for their excellent 62<sup>nd</sup> Symposium which was held the week before ECM 121 in San Jose. Special thanks were expressed that an integral part of this event was the IUVSTA Highlight Seminar which was included as an extra session into the meeting on Friday, Oct. 23<sup>rd</sup>, morning. The Seminar was well attended and the representatives of the nine scientific divisions of the Union could highlight the scientific results of the past three years to a well-trained and interested group of participants.

The Secretary General reported on the status of negotiations with tentative new member societies. Currently, Bulgaria, Turkey, and Romania are candidates for membership, with Bulgaria having been accepted as provisional member at ECM 120. It can be expected that full membership will be granted to Bulgaria at GM 19 which is due August 2016 in Busan, Korea.

In conjunction with GM 19 the Secretary General emphasized the importance of the upcoming ECM 122 in Braga, Portugal. At this meeting Bids for IVC 22 in 2022 will be discussed. Also a person, who will be proposed to the General Meeting as President elect will be selected. Therefore it is of utmost importance that this meeting is well attended to put these decisions on a solid foundation.

Also the national and divisional Representatives for the next triennium will have to be nominated and finally candidates for the IUVSTA prizes in science and technology have to be named. For all these items brief guidelines will be given as an appendix to this report. Finally, the Secretary General expressed his thanks to all members of the Union to which he had frequent contact and emphasized the fast and efficient way in which required information was given.

Moving on in the agenda, one workshop and one Technical Training Course were recommended for funding by the STD. These two proposals were approved for funding by ECM. Workshop No. 80 entitled "Ultra Low Emittance Light Source Vacuum Systems", will be held in Hsinchu (Taiwan), October 24 - 28 2016 and the Technical Training Course No. 18 entitled "Low Pressure Plasma Processes and Technology", will be held in Boretice, (CZ), May 30 – June 2 2016. Concerning Technical Training Courses and Short Courses, the guidelines for these two types of events have now been finalized by the Education Committee and Statutes Committee. They were approved by ECM, and will be put to a vote for approval at the next General Meeting, GM 19 in Busan, Korea.



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Finally, the Secretary General announced, that a call for the Venue of ECM 125, the first full meeting in the new Triennium, will be announced before ECM 122. The next meetings will therefore be

ECM 122 in Braga, 15-17/04/16

ECM 123 in South Korea (close to Busan), 19-21/08/16

ECM 124 in Busan, 26/08/16

ECM 125 - the first full meeting of the new Triennium - to be voted during ECM 122 in Braga.

It was recommended to approach the Argentinean member Society to submit a bid for this meeting, because at ECM 120 there was an extremely close vote between Portugal and Argentina for hosting ECM 122.

Before ECM 121 was adjourned, the history and the main fields of the American Vacuum Society were presented by the Councillor of the USA, Joe Greene.

After the successful completion of the Sunday morning meetings the participants were invited to have lunch and to continue discussions. All delegates agreed that this was an excellent and productive meeting.



**The participants in ECM121**



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## A PREVIEW TO THE YEAR 2016 – ECM 122, IVC 20, and GM 19

In the year 2016 three important Events for the Union will take place: ECM 122 in Braga, Portugal from April 17 – 19, the 20<sup>th</sup> International Vacuum Congress, IVC 20 in Busan Korea, from August 21 – 26 in Busan Korea and associated with it the 19<sup>th</sup> General Meeting of IUVSTA, GM 19 on Wednesday, August 24. In association with these events several tasks have to be completed. These are summarized together with their deadlines in the following Table:

Task	Deadline	Communicate to
Candidates for IUVSTA Prizes	Jan. 26 <sup>th</sup> , 2016	Chair Awards and Scholarships Comm. Frank Richter, <a href="mailto:f.richter@physik.tu-chemnitz.de">f.richter@physik.tu-chemnitz.de</a>
Nominations for President elect	Feb. 15 <sup>th</sup> , 2016	Secretary General Christoph Eisenmenger-Sittner <a href="mailto:christoph.eisenmenger@ifp.tuwien.ac.at">christoph.eisenmenger@ifp.tuwien.ac.at</a>
Nomination for Councillors and Alternates	Feb 1 <sup>st</sup> , 2016	Secretary General Christoph Eisenmenger-Sittner <a href="mailto:christoph.eisenmenger@ifp.tuwien.ac.at">christoph.eisenmenger@ifp.tuwien.ac.at</a>
Nominations for Divisional Representatives	Feb 1 <sup>st</sup> , 2016	Secretary General Christoph Eisenmenger-Sittner <a href="mailto:christoph.eisenmenger@ifp.tuwien.ac.at">christoph.eisenmenger@ifp.tuwien.ac.at</a>
Nomination of Delegates to General meeting	Feb 1 <sup>st</sup> , 2016	Secretary General Christoph Eisenmenger-Sittner <a href="mailto:christoph.eisenmenger@ifp.tuwien.ac.at">christoph.eisenmenger@ifp.tuwien.ac.at</a>
Bids for IVC 22 in 2022	Feb 15 <sup>st</sup> , 2016	Chair of Congress Planning Committee Anouk Galtayries <a href="mailto:anouk.galtayries@chimie-paristech.fr">anouk.galtayries@chimie-paristech.fr</a>

In order to smoothly progress to the next Triennium these tasks should be completed within the deadlines given above. Mails including more details have been sent to the presidents of the Member Societies as well as to the national representatives in November, nonetheless some more details about the above tasks are given in the following sections.



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## CANDIDATES FOR IUVSTA PRIZES IN SCIENCE AND TECHNOLOGY

The purpose of IUVSTA Prizes is to recognize and encourage outstanding internationally-acclaimed research and achievements in technology and instrumentation in the fields of interest to the International Union for Vacuum Science, Technique and Applications (IUVSTA).

The prizes have been established by the IUVSTA Executive Council, with generous support from the vacuum industry world-wide. We request that you publicize the IUVSTA Prize competition in your nation, and encourage the nomination of suitable candidates. The nominee must have accomplished outstanding experimental and/or theoretical research in vacuum science, technique or applications within the ten years preceding the year in which the award is made. Special consideration will be given to nominees currently engaged in an active career of research.

Note that all nominating material must be sent by e-mail as attached digital files (pdf format) to the Chair of the Awards and Scholarship Committee **Prof. Frank Richter**, [f.richter@physik.tu-chemnitz.de](mailto:f.richter@physik.tu-chemnitz.de), and received by **January 26, 2016**.

In addition to e-mailing the nominating material, a complete package of paper documents (in one copy) with original signatures must be also mailed by post to the office address

PROF. FRANK RICHTER  
INSTITUT FÜR PHYSIK  
TECHNISCHE UNIVERSITÄT CHEMNITZ  
09197 CHEMNITZ  
GERMANY

Paper copies may be received shortly after the January 26<sup>th</sup>, 2016 deadline if an e-mail submission has been made on time.

For further information, please contact [f.richter@physik.tu-chemnitz.de](mailto:f.richter@physik.tu-chemnitz.de), or see the IUVSTA web site <http://iuvsta-us.org/iuvsta2/index.php?id=815>.



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## CANDIDATES FOR IUVSTA PRESIDENT ELECT

- The President elect is **nominated by the Member Societies**.
- Nominations by the member societies require the **agreement of the nominee, and should include a short biography and an “electoral statement” by the nominee**.
- 6 weeks before the relevant ECM (**ECM 122, Braga, April 15 – 17, 2016**), the biographical outlines and "electoral statements" of the nominees should be sent to all Council members so that they can consider the candidates and inform their proxy holders of their preference if they cannot attend the ECM.
- The **deadline** for nominations should be 8 weeks before the ECM, i. e. **February 15, 2016**. **Nominations should be sent in electronic form to the Secretary General, [christoph.eisenmenger@ifp.tuwien.ac.at](mailto:christoph.eisenmenger@ifp.tuwien.ac.at).**

### Nominations should contain:

- (i) A **nomination letter** signed by the president of the respective member society containing a statement on the agreement of the nominee, **as a scanned pdf-file**.
- (ii) The **biography** of the nominee in **pdf format**.
- (iii) The **Electoral Statement** of the nominee in **pdf format**.



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## NOMINATION OF DELEGATES TO GM 19

The General Meeting shall be composed of **delegations of the Members of the Union**. Each delegation shall consist of **a maximum of three (3) persons**. It will be led by a **head of delegation** nominated by the National Committee which it represents. Each head of delegation will vote in the name of his National Committee, casting all the votes given to the National Committee so represented.

**Each Member of the Union must notify to the Secretary General of the Union the composition of its delegation to the General Meeting, indicating clearly the name of the head of the delegation.**

**Members of the Union may arrange to be represented at the General Meeting by another Member, the President or a Vice-President.** At an Extraordinary General Meeting, no Member can represent more than three (3) Members including itself. At an Extraordinary General Meeting, the President or a Vice-President cannot represent more than three (3) Members. **At an Ordinary General Meeting, there is no limitation in the number of Members a Member or the President or a Vice-President can represent.**

**Any Member of the Union wishing to be represented at the General Meeting by another Member shall inform the Secretary General of the Union four (4) weeks before the date of the General Meeting.**

The Secretary General of the Union shall verify that the Member requested to act as representative of another Member is entitled to do so. The representation shall be exercised by the head of the delegation of the representative Member.

The **deadline** for nominating Members of a Delegation is **February 1<sup>st</sup>, 2016**. **Nominations should be sent in electronic form to the Secretary General, [christoph.eisenmenger@ifp.tuwien.ac.at](mailto:christoph.eisenmenger@ifp.tuwien.ac.at).**

## NOMINATION OF COUNCILLORS, ALTERNATES, AND DIVISIONAL REPRESENTATIVES

Each Member Society nominates one **Councillor and one Alternate Councillor** for its representation in the Executive Council in the new triennium.

In addition, **representatives for the 9 Scientific Divisions** of the Union should be nominated. The names and contact data of these persons should be communicated **in electronic form to the Secretary General, [christoph.eisenmenger@ifp.tuwien.ac.at](mailto:christoph.eisenmenger@ifp.tuwien.ac.at) until February 1<sup>st</sup>, 2016.**



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## BIDS FOR IVC 22

Bids for the 22<sup>nd</sup> International Vacuum Congress, IVC 22, due in 2022, **should be addressed to the Chair of the Congress Planning Committee, Anouk Galtayries, [anouk.galtayries@chimie-paristech.fr](mailto:anouk.galtayries@chimie-paristech.fr), by February 15<sup>th</sup>, 2016. The following Guidelines for Hosting the IUVSTA Triennial Congress should be considered:**

### 1. General

- a. IUVSTA considers the Triennial Congress as its most important event and makes every effort to ensure that the Congress attains the highest scientific and technological level within the available financial resources.
- b. The chosen host national vacuum organization will always hold the Congress on behalf of IUVSTA. The final responsibility for all activities related to the Congress is in the hands of the host national organization.
- c. In all instances the participants (attendees) in the Congress must be treated equally with respect to race, sex, colour and national origin.
- d. Some of the aspects considered in the selection of a host national organization are the existence of:
  - i. a group of internationally qualified scientists who would be available to help organize the meetings
  - ii. national scientific and technical institutions which will assist in obtaining sponsorships.
  - iii. the completed questionnaire and check list ([Points to Consider for Holding an International Congress](#)) which the Congress Planning Committee (CPC) and the Executive Council will use for judging the applications of national vacuum organizations.
- e. The usual procedure for selecting the host national organization will be a vote of the Executive Council at its last meeting of each triennium, six years prior to the Congress.

### 2. Scientific and Technical Goals of the Congress

There are three specific goals of each Triennial Congress:

- a. To provide a forum where individuals from different countries can meet to discuss scientific and technical matters of interest to IUVSTA.
- b. To provide an opportunity for cross-fertilization among the various scientific interests of the IUVSTA Divisions.
- c. To provide access to an exhibition of the latest vacuum related equipment.





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### 3. Organization

**a.** As soon as a national host organization has been selected to run the Congress, this organization must form its Congress Organizing Committee (OC). The OC is closely linked to the IUVSTA Congress Planning Committee (CPC) and to the Executive Council and the IUVSTA Scientific and Technical Divisions. The host organization should utilize these links for seeking technical and financial assistance whenever required in the course of its various activities. The OC is responsible for management of the Congress, including Publicity, Financial Planning, Venue Administration, Exhibition Plan, Social Program, Companion's Program and arrangements for IUVSTA meetings. The Program Committee reports to both the OC and the CPC. Note: A well-functioning OC is vital for the success of the Triennial Congress

**b.** The Organizing Committee (OC) includes the chair, vice-chair, and the executive councillor, or alternate, from the host national organization. The executive councillor or alternate acts as the OC's link to the CPC and EC, informing them regularly of the progress of the Congress. Other members of the OC include chair and vice-chair of the Program Committee as well as the chairs of the IPC's, those individuals responsible for facets of Congress development; other individuals with scientific, technical and financial expertise to ensure a successful program; and as advisors, the preceding and succeeding OC chairs.

**c.** The Program Committee determines the overall scientific and technical content of the Congress and is responsible for the proceedings to be published after the Congress. The Program Committee shall be composed of the chair and vice chair, the publications manager, and the chair of each International Program Committee (IPC).

**d.** The International Program Committees (IPC's) are individually responsible for the scientific and technical presentations at the Congress. They represent the interest of each scientific or technical division and coordinate with one another in the selection of papers for the various sessions at the Congress. Guidelines for setting up IPC's are included in Annex II of this section.

### 4. Procedures

**a.** The responsibility of the International Program Committee (IPC) is to prepare an effective scientific program through selection of session topics, joint (interdivisional) session topics, plenary lecturers, invited speakers, moderators, review procedures, etc. The IPC reviews abstracts submitted for the Congress, and recommends acceptance or rejection to the chair of the Program Committee. Advice on scientific and technical topics to be covered by the Congress may be given by the EC.

**b.** Sessions dominated by invited speakers are in general to be avoided. On average, the scientific program should include no more than one plenary lecturer per day and no more than one invited speaker per half-day session.

**c.** The chair of the Program Committee will determine who has primary responsibility for organizing joint inter-divisional sessions, initiation of invited speaker selection, etc.

**d.** The chair of the Program Committee makes all formal invitations to speakers and plenary lecturers.

**e.** IPC's make suggestions of plenary lectures and their topics. These should be of potential interest for a large cross



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section of attendees.

**f.** The suitability of having a manufacturer's "new products seminar" is determined by the Program Committee at an early date.

**g.** All Congresses will have at least three associated publications:

*i.* A preliminary program, distributed to interested persons about 3 months before the Congress.

*ii.* A book that contains the final program, information on the exhibition and all available abstracts. This book will be distributed to attendees at the time of the Congress.

*iii.* Proceedings, published subsequent to the Congress in a refereed archival journal with broad circulation or in an equivalent archival form, which will consist of a representative number of complete papers or extended abstracts from each session of the Congress.

**h.** The exhibition of vacuum related equipment should be well integrated with the scientific part of the Congress.

## 5. Finance

**a.** The host national organization which organizes the Congress assumes a financial responsibility which may, in some cases, be in excess of its own financial means. This responsibility applies in all instances, even if the Congress is a financial failure. In this case, the host national organization has to assume all debts.

**b.** A preliminary budget must be submitted with the proposal to host the Congress.

**c.** It has been the custom that the host national organization donates part of the net proceeds from the Congress including the exhibition to IUVSTA. Typical donations are of the order of €40,000. It must be assured that this donation is voluntary, i.e., it is not a prerequisite for hosting the Congress.

**d.** After a host is selected, the national organization must submit a detailed budget of resources and expenses to the CPC within one year. The Organizing Committee (OC) of the Congress has the financial responsibility for that Congress. The annual budget prepared by the OC during the preparation for the Congress and the final budget after the Congress must be made available to the Congress Planning Committee and the Executive Council of IUVSTA. The presentation of the budget should be in a form which is of use to future Congress organizers.

**e.** Financial assistance to support student attendance and invited speakers is customary. (No fee and, on the basis of proved need, travel assistance for invited speakers and a reduced fee for students and emeritus members of national member societies is usually offered).

## 6. Exhibition

The exhibition is an integral part of the IUVSTA-Congress. Normally, a successful exhibition is most important in order to balance the Congress budget. Care must be exercised to assure that the exhibition has adequate space allocated in close proximity to the scientific and technical presentations. One person responsible for the exhibition should be



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appointed by the OC chair. Because of the high costs to exhibitors taking part in the Congress, every effort should be made to meet with them during the Congress to ascertain strengths and weaknesses of the exhibition from their point of view.

## Points to Consider for Holding an International Congress

- Date (conflicts with other meetings, low airfare season).
- Place (ease of accessibility)
- Public transportation (air, train, from airport to hotels)
- Adequate facilities for holding meetings (hotel, university, congress hall, size of meeting rooms etc.)
- How many parallel sessions are possible?
- Who will underwrite the financing of the conference?
- Who will run the congress, how will it be managed?
- Restrictions on papers. How many papers can be accepted?
- Plans for invited papers
- How will papers be published?
- Registration fees, including the minimum income required by IUVSTA
- Plans for the exhibition (location, opening schedule)
- Plans for associated short courses
- Plans for social program
- Plans for companion's program

## Guidelines for setting up the International Programme Committees

1. Each IUVSTA Divisional Committee shall nominate two or more suitable persons for consideration as Chairs of the IPC for that Division.
2. From the Divisional nominations, the Chair of the Congress Program Committee shall select the Chair of each IPC. Selections should be made in such a way as to maximise broad international representation.
3. The other members of each IPC shall be selected as follows
  - i. A maximum of six shall generally be selected by each Division.
  - ii. The Congress Organising Committee shall select the remain members
4. In all instances, the Divisional representatives must be more than 50% of any IP

## Triennial Congress – General Countdown Calendar

- 2yrs 6 months Selection for International Program Committees
- 2 yrs 5 months Notification of Chairs of IPC's and members



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- 2 yrs 3 months 1st Program Committee Meeting
- 2 yrs 1st Announcement to Scientific Journals
- 1 yr 7 months Deadline for IPC's to inform Program Chair regarding invited speakers
- 1 yr 6 months Invitations to invited speakers
- 1 yr 3 months First Call for Papers  
Indication of Intent
- 12 months Final Call for Papers  
Abstract Forms; Registration Forms for Meetings and  
Hotels
- 6 months Abstract Deadline
- 5 months Final Program Committee Meeting  
Abstract Selection  
Program Assignments  
Referee Assignments
- 4 months Program finalised
- 3 months Program distributed
- 1 month Submission of Manuscripts
- Zero Start of Congress