

### **IUVSTA**

## 18th General Meeting

Palais des Congrès, Paris, France

Wednesday, 11th September 2013

### **Book of Reports**

(For Submission)

http://www.iuvsta.org

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# General Assembly of IUVSTA Comprising the 18<sup>th</sup> Ordinary General Meeting and the Extraordinary General Meeting of 2013

#### Palais des Congrès, Paris, France

### Wednesday, 11<sup>th</sup> September 2013 at 13.00 hrs

#### **AGENDAS**

#### **General Meeting 18**

Attendance and Constitution of G	eneral Meeting 18		R J Reid
Welcome by the President			J-J Pireaux
Remembrances			J-J Pireaux
Alterations to Membership			R J Reid
Alteration of the share values of	Member Societies as follows		
	Existing	Proposed	
Chinese Vacuum Society	3	10	
Korean Vacuum Society	5	7	
Vacuum Society of Australia	3	1	
Admission of Argentine Vacuum	Society to Membership		R J Reid
Approval of Minutes of GM 17			R J Reid
Amendments to the Statutes and I	By-Laws		R J Reid
Amendment of Bylaw 7 (Paper C			
Approval of new Division			D Ruzic
Approval of the Accounts for Fina	ancial Year 2012		F Reniers
Approval of the Budget for Finance			F Reniers
= =	f Presidency from J-J Pirea	ux to M Ande	erle
Elections for the Triennium 2013.			M Anderle
The Executive Council nominee for President Elect is Prof Lars Montelius			
The Past President will be Prof J	-J Pireaux		
The President nominates the following	owing Officers:		
Scientific Director	Prof David Ruzic		
Scientific Secretary	DrAndrej Vince		
Secretary General		tner	
Treasurer	Prof François Reniers		
Ratification of the framework budget for the Financial Years 2014 to 2016			F Reniers
Approval of subscription rates for each of the three Financial Years 2014,			F Reniers
2015 and 2016			
Ratification of National Committee Councillors & Alternates			C Eisenmenger-Sittner
Recognition of retiring Officers and ECM members			J-J Pireaux
Any Other Business			Floor
1 11 Caron Business			

#### **2013 Extraordinary General Meeting**

M Anderle

· · · · · · · · · · · · · · · · · · ·	
Constitution of the 2013 Extraordinary General Meeting	M Anderle
Report of the Past President	J-J Pireaux
Reports of the Previous Executive Council	
Secretary General	R J Reid
Committee Reports	J-J Pireaux
Scientific and Technical Director	D Ruzic
Division reports	D Ruzic
Treasurer & Finance Committee	F Reniers
Inaugural Statement of the President	M Anderle
Motion to Adjourn	Floor

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Adjournment of General Meeting 18

### Member Delegates to the 18th General Meeting (as notified 19<sup>th</sup> August 2013)

**Australia** Germany

Head of Delegation: Rod Boswell Head of Delegation: Frank Richter

Bruce King Michael Kopnarski

Christian Day

Austria Great Britain

Head of Delegation: Christoph Eisenmenger-Sittner Head of Delegation: Martin McCoustra

Wolfgang Werner Alex Shard
Peter Varga David Sykes

Belgium Hungary

Head of Delegation: Diederik Depla Head of Delegation: László Kövér

François Reniers

András Berkó
György Radnóczi

Brazil India

Head of Delegation: Pedro A. P. Nascente Head of Delegation: Represented by Great Britain

**Croatia** Iran

Head of Delegation: Nikola Radic Head of Delegation: Alireza Z. Moshfegh

<u>Petar Pervan</u> Morteza Zargar Shoushtari

Maja Buljan Ali A Hosseini

Czech Republic Israel

Head of Delegation: Karel Masek Head of Delegation: Sidney Cohen

Pavel Hedbavny Alon Hoffman Tomas Sikola Ron Naaman

Finland Italy

Head of Delegation: Antti Korhonen Head of Delegation: Espedito Vassalio

Paolo Manini Francesco Ghezzi

France Japan

Head of Delegation: Daniel Verniere Head of Delegation: Katsuyuki Fukutani

Maria Carmen Asensio Yoshio Saito
Anouk Galtayries Hideaki Kasai

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Korea Russian Federation

Head of Delegation: Jihwa Lee Head of Delegation: Dmitriy V. Bykov

Jin-Hyo Boo Gennady G.Bondarenko

Geun Young Yeom Evgeny A. Deulin

Mexico Slovakia

Head of Delegation: Sandra Rodil Head of Delegation: Robert Redhammer

Jaroslav Kováč Andrej Vincze

Netherlands Slovenia

Head of Delegation: W. M. M. Kessels Head of Delegation: Miran Mozetic

Monika Jenko Janez Kovac

Pakistan Spain

Head of Delegation Javaid Ahsan Bhatti Head of Delegation: J.A. Martin-Gago

Suleman Qaiser F. Tabarés
A. Gutierrez

P.R. China Sweden

Head of Delegation: Jianguo Hou Head of Delegation: Ulf Jansson

Xu Chen Lars Montelius Feng Pan

**Poland** Switzerland

Head of Delegation: Marek Szymonski Head of Delegation: Martin Wüest

Leszek Markowski

Portugal USA

Head of Delegation: Orlando M.N.D. Teodoro Head of Delegation: Joe Greene

Ana Cristina Silva Gregory J. Exarhos

Bill Rogers

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#### Member votes, based on subscribed shares.

**Quorum**: Two-thirds of members present or represented.

30 (31) members; quorum – 21 members

	NUMBER OF SHARES	Number of GM votes	
Argentina*			
Australia	3 (1 <sup>†</sup> )	2 (1 <sup>†</sup> )	
Austria	3	2	
Belgium	3	2	
Brazil	2	2	
Croatia	1	1	
Czech Republic	2	2	
Finland	2	2	
France	9	4	
Germany	15	5	
Great Britain	8	4	
Hungary	3	2	
India	2	2	
Iran	2	2	
Israel	2	2	
Italy	5	3	
Japan	13	5	
Korea	5 (7 <sup>†</sup> )	3 (4 <sup>†</sup> )	
Mexico	2	2	
Netherlands	5	3	
Pakistan	2	2	
P.R. China	3 (10 <sup>†</sup> )	2 (5 <sup>†</sup> )	
Poland	3	2	
Portugal	2	2	
(Romania)	(1)	(1)	Membership suspended
Russian Federation	10	5	
Slovakia	1	1	
Slovenia	1	1	
Spain	3	2	
Sweden	3	2	
Switzerland	3	2	
Ukraine	(1)	(1)	Membership suspended
USA	20	5	

<sup>\*</sup> If admitted to membership by the GM  $^{\dagger}$  If agreed by the GM



### **IUVSTA**

## 17<sup>th</sup> General Meeting

# Beijing International Convention Centre, Beijing, P R China.

25<sup>th</sup> August, 2010

http://www.iuvsta.org

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### Minutes of the General Meeting of the IUVSTA Beijing International Convention Centre, Beijing, P R China. Wednesday August 25, 2010.

#### 1 Opening

The President, Prof J W Rogers Jr, formally opened the meeting at 13.10.

#### 2 Attendance

Officers: President Prof J W Rogers Jr.

President Elect Prof J-J Pireaux
Secretary General Dr R J Reid
Treasurer Dr J Grant
Scientific Director Prof M Anderle

Scientific Secretary Prof C Eisenmenger-Sittner

#### National Delegations:

Australia \* Dr Phil Martin

Austria \* Prof Christoph Eisenmenger Sittner; Prof Manfred Leisch

Belgium \* Prof Dr François Reniers

Brazil \* Pedro Nascente Croatia \* Dr Nikola Radic

Czech Republic \* Dr Karel Masek; Dr Pavel Hedbavny; Tomas Sikola

France \* Dr Daniel Verniere : Maria Carmen Asensio

Germany \* Prof Dr Frank Richter

Great Britain \* Dr Joe Herbert

Hungary \* Dr Läszló Kövér; Dr Andras Berko

Iran \* Prof Alireza Moshfegh; Prof Morteza Zargar Shoushtari

Israel \* Dr Irina Gouzman; Dr Eitan Grossman Italy \* Dr Mariano Anderle; Paolo Manini

Japan \* Prof Tatsuo Okano; Prof Yoshio Saito; Prof Katsuyuki Fukutani

Korea \* Prof Jihwa Lee; Prof Young Kuk; Prof Jin-Hyo Boo

Mexico \* Dr Alberto Herrera Gomez

Pakistan \* Mr Javaid Bhatti: Aasim Fasih Khan

P.R. China \* Xu Chen; Haiming Guo

Poland \* Prof Dr Marek Szymonski; Dr Laszek Markowski Portugal \* Prof Orlando M.N.D. Teodoro; Ana Gomes Silva

Russian Federation \* Prof Dr G G Bondarenko

Slovakia \* Dr Marian Vesely; Prof Vladimir Tvarozek; Andrej Vincze Slovenia \* Prof Dr Miran Mozetic; Dr Janez Setina; Prof Dr Alenka Vesel;

Spain \* J A Martin-Gago

Sweden \*Prof Lars Montelius; Prof Lars Westerberg; Prof Ukf Jansson

Switzerland \* Dr Martin Wuest

USA \* Prof J.E. Greene; Dr Gregory Exarhos; Ivan Petrov

Observers: Marylin Ruzic (USA), Ann Sykes (UK), Monika Jenko (Slovenia), M-G Barthes (Former President), Sefic Suzer (Turkey).

Recording Secretary: Dr D E Sykes

Dr Reid, the Secretary General announced that the quorum for the meeting was twenty and that there were twenty seven out of a total of thirty societies represented in the room; only Finland, India and the Netherlands were not present. Dr Reid announced that he had received an apology from the Past President, Prof Ugo Valbusa, who was unable to attend the meeting; he also noted that a former President, M-G Barthes, was present in the room.

#### 3 President's Welcome

The President, Prof J W Rogers Jr., welcomed delegates to the meeting and thanked the Chinese Vacuum Society for their hospitality. He explained that the General Meeting would contain a summary of the activities of the Union over the past triennium and that the details were contained in the book of reports, GM-17-03-01; in addition, at this meeting, the Statutes and By-Laws would be revised in order for the Union to comply with Belgian Law.

#### 4 Remembrances

The President recalled the names and read the obituaries of those former members of the Union who had passed away in the course of the triennium: John Henry Leck [ECM-104-05-01], Theodore Eugene Madey [ECM-105-05-01], Leszek Michalak [ECM-105-05-02] and Anton Zalar [ECM-107-05-01]. The meeting observed a silence of one minute.

#### 5 Minutes of GM-16

[GM-16-01-01]

Dr Reid reported that the minutes of GM-16, [GM-16-01-01], were on the web site and in the book of reports. He had not been informed of any necessary changes to the minutes and these were approved as a true report of the meeting.

#### 6 Amendments to the Statutes and By-Laws

The Secretary General explained that, as the Union was registered in Belgium, changes to the Statutes were necessary to comply with Belgian Law. The major change that was to be made was the move to an annual, rather than a triennial, budget; some minor changes that brought the procedures up to date were also included. The changes included: the power to replace Councillors who die in office; legal insurance for the President; to have two official languages rather than three (French as the Official language and English as the working language); clarification of the subscriptions for Societies in suspension; provisional membership and changes in Societies' Statutes. In addition the schedule of General Meetings will be changed as one will have to be held each year; there will be a "full" General Meeting every three years alongside the triennial IVC and

<sup>\*</sup>Head of Delegation

"short" General Meetings in the intervening years alongside an ECM with the sole purpose of approving the accounts of the previous year and setting the budget for the following year. The rationale for the changes is explained in paper GM-17-20G-03.

The Secretary General explained that there were four motions to consider and these were given in the agenda, GM-17-00-01. The first motion, which allowed for some corrections to be made to the proposed draft Statutes, was approved unanimously by a show of hands. The votes on the three motions proposing the substantive changes to the Statutes and By-Laws were conducted by secret ballot; Ann Sykes (UK) and Marilyn Ruzic (USA) were appointed tellers.

For all three motions, sixty nine votes were cast in favour of the motions, there were no votes against and no abstentions; the motions were duly carried. In reporting the result, the Secretary General explained that it was only the national delegations that were able to cast votes and the Officers did not have a vote at the General Meetings.

#### **7** Reports of the Executive Council

#### 7.1 Secretary General

[GM-17-03-06]

Dr Reid, the Secretary General, informed delegates that his report covered the activities of the Union between Wednesday 4 July 2007 and Wednesday 25 August 2010 and that a written copy could be found in the Book of Reports. Dr Reid thanked the Recording Secretary for his support throughout the triennium.

#### 7.2 Committee Reports

The President, Prof J W Rogers Jr., invited Committee Chairs to present their reports.

Dr Janez Setina, Chair of the Awards and Scholarships committee, presented his report, [GM-17-20H-01].

The Chair of the Congress Planning Committee, Fabio Mazzolini, was not present and the President presented the report on his behalf [GM-17-20A-01] observing that IVC 19 will take place in Paris in 2013 and IVC 20 in Korea in 2016

The Chair of the Education Committee, Pierre Strubin, was not present and his report, [GM-17-20B-01] was presented by the Scientific Secretary, Christoph Eisenmenger-Sittner.

Prof J-J Pireaux, the President Elect and Chair of the Long Range Planning Committee, presented his report, [GM-17-20J-01].

Maria Carmen Asensio, Chair of the Emerging Societies Committee, presented her report, [GM-17-20D-01].

Ivan Petrov, Chair of the Publications Committee, presented his report, [GM-17-20F-01].

Ron Reid, the Secretary General and Chair of the Statutes Committee, presented his report, [GM-17-20G-04].

#### 7.3 Scientific and Technical Director

[GM-17-10A-01]

Mariano Anderle, the Scientific Director, presented his report which highlighted the scientific activities of the Union and contained the reports from the Scientific Divisions.

#### 7.4 Treasurer and Finance Committee

[GM-17-04-01]

The Treasurer, John Grant presented his final report as Treasurer. He presented a budget that was slightly different to the one that had been included in the book of reports in that the item of 10kEuro for the Emergency Item: Changes to Statutes had been increased to 11kEuro. The meeting approved the change to the budget unanimously by a show of hands.

John Grant explained that, as the Union's accounts had been prepared in CHF, with the change to the Euro as the accounting currency, the value of the investments appeared to have fallen but this was a direct result of the strength of the CHF against the Euro.

He thanked Pierre Strubin for his assistance through the triennium in managing the funds held by Credit Suisse and François Reniers for his help with the funds held in Belgium; he also thanked Daniel Verniere for his work on the Investment Sub Committee.

Questions or comments were invited; there were no questions or comments.

#### **8** Retiring President's Report

[GM-17-02-01]

The Retiring President, Prof J W Rogers Jr., began his remarks by thanking the Bro family for their continuing support of the Welch Scholarship. He outlined the activities of the Union over the past triennium noting that, although the Union was successful in its work despite the global challenges, more could be achieved and some opportunities outlined in the Strategic Plan were yet to be realised. He expressed his thanks to all those who had helped him during his Presidency, in particular the Officers and members of the Executive Council.

Questions or comments were invited; there were no questions or comments.

#### **9** Recognition of Retiring Officers and ECM Members

[GM-17-03-03]

Prof Rogers presented a list of retiring Officers, Division Chairs, Councillors and Alternates. He presented those present at the meeting with certificates and asked fellow countrymen of those not present to deliver their certificates on his behalf.

#### 10 Transfer of Presidency

At this point in the meeting Prof Rogers formally transferred the Presidency of the Union to Prof J-J Pireaux by handing over the gavel as a symbolic gesture.

#### 11 Ratification of the budget 2010-2013

[GM-17-04-02]

The Retiring Treasurer, John Grant, presented his proposed budget for the new triennium, noting that there was a minor change to that presented in the book of reports circulated before the meeting. This change was a result of the ongoing legal fees relating to the changes to the Statutes and By-Laws. An additional item of 2kEuro had been added to the draft budget to allow for the additional expenditure and, to keep the budget balanced, the Officers' Discretionary Expenditure had been reduced by 2kEuro.

Questions and comments were invited but none were forthcoming; the draft budget was therefore accepted unanimously by a show of hands.

#### 12 Elections

The Executive Council's nomination for President Elect was Mariano Anderle; the Secretary General announced that he had received no other nominations. The General Meeting approved unanimously the Executive Committee's nomination by a show of hands. Mariano Anderle was invited to take the seat of the President Elect. The President, Prof. J-J Pireaux, then proposed the appointment of David Ruzic as Scientific Director; Prof Christoph Eisenmenger-Sittner was to continue as Scientific Secretary and Dr Ron Reid as Secretary General, Prof François Reniers was proposed as Treasurer. There were no objections to the appointments.

#### 13 National Committee Councilors and Alternates

[GM-17-03-05]

The Secretary General presented a list of the Councillors and Alternate Councillors, based on the provisional list given in the book of reports but with two amendments. He explained that, once approved by the General Meeting, the nominations could not be changed.

#### **14** Member Societies

To note that the Finnish Vacuum Society had become a Division of the Finnish Physical Society but otherwise its status as a member society is unaltered.

#### 15 Inaugural Address

[GM-17-02-02]

The President read his inaugural statement from the book of reports.

#### 16 Any Other Business

François Reniers took this opportunity to thank John Grant for his work as Treasurer in the past triennium.

A motion to adjourn the meeting was proposed and seconded; the President closed the meeting at 14.45.

D E Sykes Recording Secretary 25/9/2010 GM-18-20G-01 GM-18-20G-01

#### Amendment of By Laws Relating to Divisions

*Preamble (Not forming part of the amendment)* 

The effect of the amendment is to remove the requirement to elect a Committee from among the members of a Divisional College as nominated by the Member Societies. The whole College assumes the duties of the former Committee, including the direct election of the Divisional Officers.

The amendment was agreed by the Executive council at ECM 114 on 30<sup>th</sup> September 2012. The GM is invited to ratify this change.

Amend Bylaw 7 as follows

Delete Section 7.3 and replace with the following

#### 7.3 Divisional Officers

- (a) The Divisional members shall elect a Chairman of the Division for the Period.
- (b) This Chairman shall be chosen from among the members of the Divisional College.
- (c) The Divisional members shall elect a Vice-Chairman of the Division for the Period.
- (d) This Vice-chairman shall be chosen from among the members of the Divisional College.
- (e) The Divisional Committee members shall elect a Divisional Secretary for the Period.
- (f) This Secretary shall be chosen from among the members of the Divisional College.
- (g) In the case of death, permanent incapacity or resignation of one of the officers the Divisional members shall elect a successor for the rest of the Period. Until this election is performed, the remaining officer(s) shall be responsible for administering the affairs of the Division.

In Section 7.4(b), replace "Divisional Committee" with "Division"

In Section 7.4(c) in line 1 delete "and the Divisional Committee"

In Section 7.4(d) in line 2 delete "and the Divisional Committee"

In Section 7.5(b) in line 3 replace "By-Law 7.2 (a) and By-Law 7.3 (a), (c) and (e)" with "By-Law 7.2"

Delete Section 7.2 and renumber subsequent sections accordingly

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#### REPORT OF THE TREASURER FOR THE TRIENNIUM 2010-2013.

At the beginning of this triennium, IUVSTA elected François Reniers as new treasurer to replace John Grant. The budget voted at the beginning of the triennium was done on what was thought to be a "conservative" base at that time. The changes in the IUVSTA statutes require now an annual budget, which should, if possible stay in the budget lines voted for the full triennium.

#### 1. Previous triennium (2007-2010) budget:

The accounts of the previous triennium were approved during the ECM 112 meeting that took place on 11 September 2011 in Strunjan, Slovenia

#### 2. Current Status of the 2010-2013 budget:

The current status of the budget, as established on July 1<sup>st</sup>, 2013 is presented hereunder. The table shows the budgeted amounts, and the current status. Some expenditure will still occur before the end of the triennium, such as expenses for the officers, IUVSTA prize (from the general fund). The income from subscriptions is lower than budgeted due to difficulties from the Australian Vacuum Society to pay the fees according to their number of shares. 10 workshops were allowed to be funded during this triennium. They were all allocated.

IUVSTA Budget 2010-2013	GM17 voted	Realized	Expected	
Euro	Euros	ricunzcu	Expedica	
Income:	Luios			
Subscriptions (share value of 150 € per year)	62100	56595.25	61095,25	
Interest	25700		32012,05	
Visual Aids	500	0	0	
transfer from general fund				
IUVSTA prize (from general fund)				
Donation (from IVC-19 Paris)	30000		30000	
Total income	118300	88607,3	123107,3	
			•	
Expenditure:				
Publications	6500	2450	5450	
Educational Activities	20000	12500	12500	
Workshops/Schools	60000	61600	67600	one workshop from previous triennium was paid
World Transfer Program	10000	0	0	
Officers discretionary expenses and travel	12000	2853,62	14000	
Scientific and technical directorate	2000	0	1000	
Liability insurance for IUVSTA president	1000	983,25	983,25	
ICSU/NGO-UNESCO	2000	1625	2000	
Bank charges, taxes, commitments, miscellaneous	4000	4120,14	6720	
Accountant for tax fillings	800	1500	2250	
transfer to general fund				
IUVSTA prize		0	6800	
Total expenditures	118300	87632,01	119303,3	
IUVSTA prize 2013 and related costs				
Prize Fund (for previous donations)	48270			
Interest from prize fund	2000			
Subvention from reserve (if required)	4800			
IUVSTA prize 2013 and related costs	-6800			
Total:	48270			

#### 3. Accounts and investments:

The beginning of the triennium was placed under the sign of the global economic crisis, and more specifically the crisis in the Eurozone. Because of these uncertainties, it was decided

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NOT to invest the donation (in Swiss Francs) from IVC Beijing, and to keep this amount in the same currency on a bank account. In parallel, the crisis in Greece lead to a significant loss on our investment on the Greek Eurobond (50.000 € were invested). The finance subcommittee (the treasurer + D. Vernière) invested massively in company eurobonds with a decent geographical balance. These bonds were all offering net interest higher than 4%. At the end of 2012 many of these bonds were overrated and were sold, giving a supplementary income (put in the line "interest" of the budget). The capital was reinvested in new bonds, labeled in USD, that were offering a better interest rate. In parallel, the funds invested in stocks managed by the AVS (in USD), and those placed in Credit Suisse, performed very well also. Despite the global crisis that took place during most of the triennium, and the loss on the Greek bond, the value of the general fund is slightly higher than the statement presented in the book of records of GM17.

IUVSTA GENERAL FUND			01 July 20	13	(draft)		
US Mutual Funds	# shares		value	currency	total value	EUR/USD Total EUR	
DWS Global thematic fund	3051,542		25,19	USD	76868,34	0,7684 59065,63	
Vanguard 500 index fund	486,712		148,87	USD .	72456,82	0,7684 55675,82	
cash	839		1	USD	839	0,7684 644,6876	
total US Funds					150164,2	115386,1	
EURO Mutual Funds and bonds							
Aberdeen Global European Equity Fund	1023,37		41,2815	EUR	03-08-2013	42246,25	
Aberdeen Global Dividend Europe Fund	229,8		174,1223	EUR	03-08-2013	40013,3	
HP - 6% - 2041		40000		USD		2931,84	
5,3% fix int. Hellenic Republic (2026)		50000 replaced	by a sum of	small certif	ficates	11096,52	
4,625 fix. Int. ArcelorMittal (2017)		50000 sold				0	
5,625 Renaut (2017)		40000				42836	
4% Wienerberger (2020)		24000				23445,6	
5,7% Delhaize (2040)		50000		USD		38602,25	
Bekaert 2019 5%		15000				15736,5	
Lafarge		15000				15525	
total Euro investments						232433,3	
Accounts						EUR/CHF	
Credit Suisse EURO account						94674,48	
Créduit Suisse EURO account Créduit Suisse CHF account					321,23	0,8217 263,9547	
Citibank CHF money market					48644.04	39464,58	
Citibank EUR checking					40044,04	2760,24	
Citibank EUR Savings						29104,65	
Citibank US Money Market					0	0	
Citibank CHF current					713,68	579	
Citibank US current					39,31	30,15	
Total Accounts					,	166877,1	
IUVSTA Prize						-48270	
Grand Total						466426	

#### 4. Annual budgets:

Due to the new statutes of IUVSTA, and the Belgian regulation, annual budgets have now to be established, and the accounts must be approved by an annual general assembly. They must also be validated by a certified accountant. This procedure was set up for the 2011 budget, and the 2012 budget. The accountant validated the accounts for these two years, and the 2012 accounts must still be approved by the 2013 general meeting.

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The general meeting must also formally vote the 2013 annual budget, the general guidelines of this budget having been already provisionally approved in April 2013 during ECM Kracow.

One will find hereunder the final accounts of the 2012 budget, as validated by the accountant.

IUVSTA Budget 2012	GM17 voted	realized	remaining	Budget	realized
Euro	Euros	2011	triennium	2012	December 31
Income:					
Subscriptions (share value of 150 € per year)	62100	,	39347,13	19673,565	18004,87
Interest	25700		•		14349,51
Visual Aids	500		500	500	0
transfer from general fund			0	20002,10	
Donation (from IVC-19 Paris)	30000		30000	_	
			0		
Total income	118300	33696,43	84603,57	56454,995	32354,38
Expenditure:					
Publications	6500	1450	5050	1550	1000
Educational Activities	20000				10000
Workshops/Schools	60000	19600	40400	30000	24000
World Transfer Program	10000	0	10000	6000	0
Officers discretionary expenses and travel	12000	490	11510	6000	1515,98
Scientific and technical directorate	2000	0	2000	0	0
Liability insurance for IUVSTA president	1000	327,75	672,25	330	327,75
ICSU/NGO-UNESCO	2000	625	1375	625	500
Bank charges, taxes, commitments, miscellaneous	4000	2715,8	1284,2	1200	1045,26
Accountant for tax fillings	800	0	800	750	750
transfer to general fund		8487,88	-8487,88		
			0		
Total expenditures	118300	33696,43	84603,57	56455	39138,99
IUVSTA prize 2013 and related costs					
Prize Fund (for previous donations)	48270				
Interest from prize fund	2000				
Subvention from reserve (if required)	4800				
IUVSTA prize 2013 and related costs	-6800				
Total:	48270				

#### 5. Budget 2013:

The budget for the year 2013 is presented hereunder. As main guidelines, the budget is composed of the remaining items of the 2010-2013 triennium budget. However, the accountant recommended making the budget as realistic as possible. For this reason, for instance, no income was budgeted for the visual aids, as it was decided during one ECM to offer them for free. Similarly, the administrative expenditures were made as realistic as possible.

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IUVSTA Budget 2010-2013	GM17 voted	proposed budget
Euro	Euros	for 2013
Income:		
Subscriptions (share value of 150 € per year)	62100	20000
Interest	25700	4000
Visual Aids	500	0
transfer from general fund		7952,75
IUVSTA prize (from general fund)		6800
Donation (from IVC-19 Paris)	30000	30000
Total income	118300	68752,75
		ŕ
Expenditure:		
Publications	6500	3000
Educational Activities	20000	10000
Workshops/Schools	60000	24000
World Transfer Program	10000	10000
Officers discretionary expenses and travel	12000	8000
Scientific and technical directorate	2000	2000
Liability insurance for IUVSTA president	1000	327,75
ICSU/NGO-UNESCO	2000	875
Bank charges, taxes, commitments, miscellaneous	4000	3000
Accountant for tax fillings	800	750
transfer to general fund		
IUVSTA prize		6800
Total expenditures	118300	68752,75
IUVSTA prize 2013 and related costs		
Prize Fund (for previous donations)	48270	
Interest from prize fund	2000	
Subvention from reserve (if required)	4800	
IUVSTA prize 2013 and related costs	-6800	
Total:	48270	

#### 6. Proposed budget for the 2014-2016 triennium.

#### a) Value of the fee for one share

It is proposed, in agreement with the discussions that were held in the finance committees during this triennium and the ECM, especially in Krakow, to maintain the value of the share at  $150 \in$ .

#### b) Number of shares per country.

Provided the general meeting agrees on the change of the number of shares of some countries, the budget was established with 1 share for Australia (instead of 3), 7 shares for Korea (instead of 5), and 10 shares for the People's Republic of China (instead of 3).

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#### c) Donation from IVC Korea

The amount drawn for this item is 30.000 €, in agreement with the past president of the Korean Vacuum Society (email from Jihwa Lee of July 1<sup>st</sup>, 2013).

#### d) Visual aids

As ECM decided to make the visual aids available for free, no income appears any more in the budget of the next triennium

#### e) IUVSTA prize

As recommended by the accountant, a specific line appears now in the expenditures for the IUVSTA prize (as this money is effectively going out of the IUVSTA bank accounts). The amount written corresponds only to the value of the two prizes, and not to the total expenses associated to the IUVSTA prize. Those ones, rather unpredictable, will be taken either from the STD line, or the officers discretionary expenses.

IUVSTA Budget 2014-2016		
Euro	2010/2013	2014/2016
Income:		
Subscriptions (share value of 150 € per year)	62100	
Interest	25700	
Visual Aids	500	0
Donation (from IVC-20 Korea)	30000	30000
Total income	118300	120034
Expenditure:		
Publications	6500	6000
Educational Activities	20000	20000
Workshops/Schools	60000	60000
World Transfer Program	10000	10000
Officers discretionary expenses and travel	12000	6000
Scientific and technical directorate	2000	2000
Liability insurance for IUVSTA president	1000	984
ICSU/NGO-UNESCO	2000	2000
Bank charges, taxes, commitments, miscellaneous	4000	4000
Accountant for tax fillings	800	2250
IUVSTA Prize		6800
Total expenditures	118300	120034
IUVSTA prize 2016		
Prize Fund (for previous donations)	48270	

#### **Election of Officers for the Triennium 2010-2013**

The President will be Dr Mariano Anderle

The Past President will be Prof Jean-Jacques Pireaux

The Executive Council nominee for President Elect is Prof Lars Montelius

The President nominates the following Officers:

Scientific Director Prof David Ruzic

Scientific Secretary Dr Andrej Vincze

Secretary General Prof Christoph Eisenmenger-Sittner

Treasurer Prof François Reniers

Short biographies/CVs are on the following pages

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Mariano Anderle - Short Biography

Mariano Anderle, Fellow AVS 2003, Past President and Honorary Member of the Italian Society for Science

and Technology (AIV), since May 1st, 2009 is Responsible of the Special Project "Promotion and

Internalization of the Trentino High Education and Research System" at the Department of Knowledge of

the autonomous province of Trento, Italy.

He received his Doctor Degree (Laurea) in Physics from the University of Trento in 1980, and shortly

thereafter he began his research career in surface and thin film science. He joined the Istituto per la Ricerca

Scientifica e Tecnologica IRST (now Bruno Kessler Foundation - FBK) in 1984, a nonprofit research institute

sponsored by the Autonomous Province of Trento, at which he has served, till April 2009, in a variety of

research and research management roles. May 2008, he has been indicated by the Italian Foreign Affairs

Minister as Scientific Attaché at the Italian Embassy in Beijing- China.

Dr. Anderle spent a sabbatical year at the IBM T. J. Watson Research Center in Yorktown Heights NY during

1990-91, as well as shorter visiting scientist appointments at University of Illinois, Urbana-Champaign in

1985, at IBM in 1992 and 1995, at CERN summers 1999-2002 and at University of Maryland summers 2003-

2008.

He has also been active in international professional circles, including serving as Councilor for Italy, Vice-

chair of Applied Surface Science Division Committee, Chair of Congress Planning Committee, Chair of the

Biomaterials Interface Steering Committee, Chair of the Long Planning Committee and Scientific Director of

IUVSTA and organizer for numerous International surface analysis and engineering activities (i.e. IVC 16,

2004 Program Vice Chair; PSE 2010 International Scientific Committee Member; SIMS 18, 2011 General Co-

Chair; etc.).

Referee of International, National and Regional industrial research projects, Adjunct Professor at the

University of Torino and Adjunct Faculty at the Materials Science and Engineering Department, University

of Maryland, he is author of more than 145 papers on international scientific journals and he holds 3

international patents and 2 IBM Invention Achievement Awards. His research includes surface analysis and

engineering, semiconductor materials and processing, combinatorial materials science, biomaterials and

biointerfaces.

More details can be found on Mariano Anderle home page: www.marianoanderle.it

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Lars Montelius

Prof, Director

Nanometer Structure Consortium

Lund University, Solid State Physics

Box 118, 22100 Lund

Sweden

http://www.nano.lth.se/

E-mail: <a href="mailto:lars.montelius@ftf.lth.se">lars.montelius@ftf.lth.se</a>

Phone: +46 705 224147



Lars Montelius, Professor in Nanotechnology at Lund University, Sweden. He has 24 years of work in nanotechnology and his recent research interests are on exploratory nanotechnology bringing it to the life sciences, especially in the neuronanosciences. LM has published more than 165 articles, given more than 70 invited talks and has filed 22 patents. LM is also the founder and director of several nanotech companies and SwedNanoTech, a national network for nanotechnology. Between Jan 2009 – Feb 2011, he was director for Øresund University & Øresund Science Region, being a cross-border cooperation between eleven universities, three regional authorities, two countries in the Øresund Region, one of Europes most innovative regions. LM is presently expert advisor to the Vice Chancellor of Lund University and engaged in several regional and European activities & initiatives.

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#### PIREAUX Jean-Jacques, Marie

#### **Directeur**

#### Laboratoire Interdisciplinaire de Spectroscopie Electronique

#### **Professeur**

#### Facultés Universitaires Notre-Dame de la Paix

#### **University of Namur**

61, rue de Bruxelles, B-5000 NAMUR (Belgique)

Tel: 32 81 72 46 06; Fax: 32 81 72 45 95

jean-jacques.pireaux@fundp.ac.be

#### Personalia

Ph.D. Thesis, Facultés Universitaires Notre-Dame de la Paix, Namur, June 1976;

1972-1979: FNRS Research Fellow (National Fund for Scientific Research, Belgium); 1979-1988: FNRS Research Associate;

1988- .....: Professor at Facultés Universitaires Notre-Dame de la Paix, Namur

#### Conference organisation (Chair and co-chair):

Intern. Conference on Electron Spectroscopy: ICES-4 (Honolulu, July 10-14, 1989); ICES-5 (Kiev, July 25-August 1, 1993; Intern. Symposium on the Metallization of Polymers (Montréal, Sept. 24-28, 1989); International Conference on Polymer Solid-Interface: ICPSI (Namur, Sept 2-6, 1991); ICPSI-2 (Namur, Aug. 12-16, 1996); 3<sup>rd</sup>. Intern. Symposium on Ionizing Radiations and Polymers -IRaP3 (Dresden, Sept. 20-25, 1998); IRaP6 (2004, Houffalize, B); ECASIA07 (9-14 Sept 2007, Brussels)

Journal Editor: Journal of Electron Spectroscopy and Related Phenomena (1989-2012)

*Member*: SBP (Belgian Physical Society), EPS (European Physical Society), AVS, MRS, APS, ECS, Society for Biomaterials; President of the IUVSTA (International Union of Vacuum Science Technology and Applications) 2010-2013

Scientific Production - (co)editor of 18 books (Conference Proceedings)

- (co)author of 400 publications

*Varia*- participation to (inter)national conferences/schools: over 370, with 80 invited presentations; more than 80 invited seminars

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#### **Research themes**

Starting with a Ph.D. thesis "Photoelectron spectroscopy Study of the Linear Alkanes: Development of an Electronic Level into a band Structure", the governing theme of research activities during more than 25 years has been the study - with electron spectroscopies - of polymers in particular, and of carbon materials in general. All the time, two complementary research aspects were pursued: (1) the <u>fundamental</u> spectroscopic study of electronic and vibrational characteristics of carbonaceous materials, (2) focusing, whenever possible, to understand some <u>technological</u> issues. For these purposes, (small) <u>model</u> molecules, as well as <u>simple</u> homo-polymers, together with <u>real</u> industrial materials, were studied.

A very first original contribution in the seventies has been the assessment of the potentialities of monochromatic X-ray induced <u>polymer valence band spectra</u>. Indeed, though the use of XPS core level data was already quite widespread to study the elemental and chemical superficial composition of polymers, the recording and analysis of valence band data required substantially more investment in machine time, in quantum chemical calculations (performed in collaboration), and in spectra treatment. Through the progressive build-up of a kind of data bank, for simple and more complex polymers, it has been proven that valence bands contain a wealth of information, with the possibility to differentiate constitution isomers, alternant and block copolymers, head-to-head or head-to-tail polymers, stereoisomers, polymers with different tacticity - conformation - even crystallinity.

During the eighties, research has been focused on the applications of HREELS (High Resolution Electron Energy Loss Spectroscopy) or electron-induced vibrational spectroscopy to similar polymer surfaces. Two fundamental issues have been addressed if not completely/definitively solved: (1) the determination of the probed depth with very low energy electrons (0.5 - 10 eV); it appears that, as far as polymers are concerned, this depth can be very shallow, i.e. a few angstroms, but varies with the vibrational band under study; (2) the disclosure and differentiation of the excitation mechanisms; dipole diffusion, impact scattering and resonance phenomena have been evidenced, a quantification procedure has been proposed - for polymers and model samples, for different vibrational bands, varying impact energies and scattering geometries. With this background information, HREELS has been successfully used to determine e.g. chain conformation of poly(amino-acid) films at their very surface.

More recently, research emphasis was focused on another experimental aspect, namely the controlled preparation of thin polymer layers: Langmuir-Blodgett films, SAM's (Self Assembled Monolayers), spin coated films, Van der Waals epitaxy of molecular solids are studied, either as "as-prepared" films or after further treatment with plasma, or UV excimer laser. RF vacuum plasma treatment (surface functionalization, nanoparticles deposition, surface coating...) is presently the preferred sample preparation method.

With all the cited instrumental and fundamental research aspects mentioned above as a background net, the following technological issues were - are still addressed in the 2010s, focusing on the understanding and control of interfacial adhesion:

- study of the elemental and chemical composition of polymer surfaces, with emphasis of the elucidation of structure and conformation of the chains;
- preparation, characterization and optimization of interfaces involving a polymer as a substrate and either a metal, or a ceramic or an oligomer as the overlayer; Organic Light Emitting Diodes (Oled's), and metal-dielectric interfaces for ULSI are current research topics;

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• modification of polymer surfaces in order to promote biocompatibility with proteins and cells; two recent contracts are concerned with interfaces in Biochips, and Biosensors, respectively;

• growth and interfacial characterization of thin crystalline fullerene layers; growth of metal nanoclusters on Carbon nanotubes; growth of new semiconducting absorbers.

#### **Current / Recent Research Programmes**

Région Wallonne – Plan Marshall2.green- Pôle Mécatech: Projet **OLED** (2013 -2016)

Région Wallonne – Plan Marshall2.green- Pôle Mécatech:

Projet "Cellules solaires photovoltaïques à base CZTS" (CZTS) (2012 – 2014)

CE/FP7/NMP: « Hybric organic/inorganic memory elements for integration of electronic and photonic circuitry» (HYMEC) (2011- 2014)

Région Wallonne – Plan Marshall2.green- Pôle Greenwin:

Projet GAZTON « Transformation de CO2 en phase gaz par technologies plasma « (2011- 2015)

Région Wallonne - Appel ERABLE

Projet « Développement et validation de matériaux innovants d'éléments de piles à combustible à membranes échangeuses de protons » (INNOPEM) (2011- 2013)

202222222222 : Grands équipements - Infrastructures 2010 : 2853827 - XPS (X-ray Photoelectron Spectroscopy) multidisciplinary platform for experimental and theoretical studies on newmaterials at the Centre for Research in Physics of Matter and Radiation (PMR) (2010-2011)

Région Wallonne – Plan Marshall- Pôle Nano, Projet NANOCOMPO (2008-2010)

Matériaux composites à base de nanotubes de carbone

Tailoring of active surface coatings for a better integration in the environment (MIRAGE) (2007-2011) – includes research on Organic Light Emitting Diodes and Organic Photovoltaic cells

Functional properties by mixed nanoorganic / metal oxide systems (FOMOS) (2007-2010)

Interface design of metal nanocluster-carbon nanotube hybrids via control of structural and chemical defects in a plasma discharge (NANO2HYBRIDS) (2006-2010)

**Interface-Control for Organic Devices (ICONTROL)** (2006-2009)

Nanoanalysis using finely focused ion and electron beams (NANOBEAMS) (NANOBEAMS) (2005-2008)

Intelligent coating for better cleaning of stainless steel (SMARTNET) (2005-2009)

Develop a continuous process to foam polymer nanocomposites in supercritical CO<sub>2</sub> (PROCOMO) (2004-2009)

Surface treatments. Development of innovative surfaces by means of optimized plasma techniques and technological transfer to industries (TRASU) (2005-2008)

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**David N. Ruzic** is the Director of the Center for Plasma Material Interactions at the University of Illinois at Urbana-Champaign. He is a professor in the Department of Nuclear, Plasma, and Radiological Engineering and affiliated with the Department of Electrical and Computer Engineering and the Department of Physics, having joined the faculty in 1984. His current research interests center on plasma processing for the microelectronics industry (deposition, etching, EUV lithography and particle removal), atmospheric-pressure plasmas for industrial applications, and on fusion energy research. Prof. Ruzic is a Fellow of the American Nuclear Society and of the American Vacuum Society (AVS). He is the author of the AVS monograph, *Electric Probes for Low Temperature Plasmas*, numerous book chapters, patents, and over 120 refereed journal articles. He obtained his PhD and MS in Physics from Princeton University, and his BS degree in Physics and Applied Math from Purdue University. He really enjoys teaching and tries to blow something up during every lecture.

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#### **Andrej Vincze**

International Laser Centre
Ilkovicova 3, 841 04 Bratislava

Telephone: +421 265421575; Mobile: +421 903 32845

E-mail: vincze@ilc.sk



#### **Employment**

2005 - International Laser Centre

SIMS laboratory, Analysis of inorganic/organic materials, depth profiling

1999 - 2005 FEI STU Bratislava

Assistant lecturer - Electronics/optoelectronics, Nanoelectronics, MBE, vacuum

technologies

#### **Education**

2010 - Researcher, assoc. prof. qualification

2006 - Researcher, SIMS laboratory

1999 - 2006

PhD student, FEI STU Bratislava

PhD Thesis: Epitaxial growth and characterization of GaAs and LT GaAs using MBE

2002 - 2003 TU Darmstadt, MBE growth and characterization of LT GaAs for high frequency

applications (THz antennas), research training

1993 – 1999 Slovak University of Technology (STU) Bratislava

Faculty of Electrical Engineering and Information Technology

Specialization: Electronics and Optoelectronics

Diploma thesis: Application of semiconductor lasers in the diagnostics

in medicine

#### **Personal Details**

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Date of Birth 8 April 1975

Place of Birth Bratislava

Citizenship Slovakia

Gender Male

#### **PUBLICATIONS**

50 CC publications with 65 citations

#### **PROFESSIONAL MEMBERSHIPS**

Slovak Vacuum Society 2007

IUVSTA member and councillor of Slovakia from 2009

Slovak chemical society 2006

Andrej Vincze, Bratislava 12/8/2013

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#### **CURRICULUM VITAE**

#### **Personal Data:**

Christoph Eisenmenger-Sittner, born on 21st July 1965 in Mödling, Austria

#### **Professional Background:**

2002 – now: Permanent position as Assistant Professor at the Vienna University of Technology, Institute of Solid State Physics

10/2001: Habilitation and achievement of the permission to teach "Applied Physics"

1991 - 2001: Assistant at the Institute of Applied and Technical Physics at the Vienna University of Technology

#### **Education:**

1990 – 1994 PhD student at the Vienna University of Technology, Institute of Applied and Technical Physics, supervisor Professor Peter Skalicky

subject: Roughness Induced Phase Separation in Multicomponent Systems

1989 – 1990 Physics (Diploma) Vienna University of Technology, Institute of Applied and Technical Physics; supervisor Professor Alfred Wagendristel; subject:

Gesputterte Gleitlagerbeschichtungen auf Cu-Basis

1984 - 1990 Study of "Technical Physics", Vienna University of Technology

#### Memberships:

Deutsche Physikalische Gesellschaft

Materials Research Society

**European Materials Research Society** 

Austrian Vacuum Society

International Union of Vacuum Science, Technique an Application (IUVSTA)

#### **Referee Activities:**

Deutsche Forschungsgemeinschaft

Croatian Ministry of Science

Institute for the promotion of Innovation by Science and Technology in Flanders (IWT Flanders)

**Applied Physics Letters** 

International Journal of Materials Research

Journal of Applied Physics

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Journal of Physics D

Journal of Testing and Evaluation

Langmuir

Materials Chemistry and Physics

Physica B

Surface and Coatings Technology

Surface and Interface Analysis

Thin Solid Films

Vacuum

#### **Meeting Activities:**

Co-organizer ECASIA 05

Co-Organizer E-MRS Spring Meeting 2007, Symposium Q "Protectice coatings and thin Films"

Membership Programme Committee JVC 12, 2008

Membership International Programme Committee IVC 18, 2010

Membership International Programme Committee ICTF 15, 2011

Membership International Organizing Committee JVC 14, 2012

Membership International Organizing Committee VASSCAA 6, 2012

Membership International Programme Committee IVC 19, 2013

#### **Functions in National and International Bodies:**

2004 Secretary General of Austrian Vacuum Society

2004 Austrian Councillor at IUVSTA

2005 Appointment to coordinator of "IUVSTA Technical Training Courses" (ITTC)

2007 Appointment to IUVSTA Scientific Secretary

Number of publications in refereed journals: 75

More details:

http://www.ifp.tuwien.ac.at/forschung/duenne\_schichten/

Vienna, December 2012

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François Reniers was born in Brussels, Belgium, in 1965.

He got his PhD in Sciences (Chemistry)) at the Université Libre de Bruxelles (ULB), Belgium, in 1990.

After a post-doctoral stay at the University of California Berkeley, he got a tenured track position at the ULB in the Faculty of Sciences. He is currently full professor of chemistry, and he served as Vice-Rector for academic policy from 2006 to 2008 and as Vice-Rector for Research from 2008 to 2010.

His main research topics are, on one hand, the chemical analysis of surfaces by spectroscopies, like Auger electron spectroscopy and X-ray photoelectron spectroscopy and, on the other hand and more recently, the design of new surfaces and the deposition of functionalized coatings by cold (atmospheric) plasma techniques.

François Reniers is the author of more than 50 papers, 4 book chapters, and the inventor of 8 patents in the field of atmospheric plasma. He gave more than 100 communications in international conferences. He was also the chairman of the ECASIA 2007 conference.

He was the president of the Belgian vacuum society (BELVAC) in 2004 and 2005, and served as Belgian councilor at the IUVSTA from 2004 to 2010. From 2007 to 2010 he was also secretary to the treasurer of the IUVSTA. He will be the scientific program chair of the IVC 19 conference that will be held in Paris in 2013.

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# National Committee Councillors & Alternates Triennium 2013-2016

Society	Councillor	Alternate
Argentina		
Australia	Prof Rod Boswell	Prof Bruce King
Austria	Manfred Leisch	Wolfgang Werner
Belgium	Diederik Depla	François Reniers
Brazil	Pedro A. P. Nascente	Evaldo J. Corat
Croatia	Dr. Slobodan Milolevic	Dr. Nikola Radic
Czech Republic	Stanislav Novak	Vladimir Matolin
Finland	Prof Antti Korhonen	Prof Jari Koskinen
France	Anouk Galtayries	Daniel Verniere
Germany	Prof. Dr. Frank Richter	Dr. Ute Bergner
Great Britain	David Sykes	Alex Shard
Hungary	Dr László Kövér	Dr András Berkó
India	Dr. S.K. Gupta	Dr. S.C. Gadkari
Iran		
Israel		
Italy	Espedito Vassalio	Paolo Manini
Japan	Prof. Kenjiro Oura	Prof. Katsuyuki Fukutani
Korea	Geun Young Yeom	Won Ho Choe
Mexico	Dr. Sandra Rodil	Dr. Stephen Muhl
Netherlands	A. F. Otte	W. M. M. Kessels
Pakistan	Dr. Javaid Ahsan Bhatti	Dr. Suleman Qaiser
P.R. China		
Poland	Prof. Leszek Markowski	Prof. Jacek Szuber
Portugal	Orlando Teodoro	Vasco Teixeira
Romania (in suspense)		
Russian Federation	Dmitriy V. Bykov	Gennady G.Bondarenko
Slovakia	Marian Veselý	Marian Vojs
Slovenia	A/Prof. Dr. Janez Kovac	Prof. Dr. Monika Jenko
Spain	Prof. J. A. Martí-Gago	Dra. E. Román
Sweden	Prof. Ulf Karlsson	Ulf Helmersson
Switzerland	Dr. Martin Wüest	Dr. Mike Seidel
Ukraine (in suspense)		
USA	Joe Greene	Gregory Exarhos

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# Certificates of Recognition Presented at GM-18 to

#### **Executive Council Members and Division Chairs who are demitting office**

Name	Latin	English
	praeses MMVII- MMX	President
J W Rogers, Jr	propraeses MMIV-MMVII MMX- MMXIII	Vice President
R J Reid	secretarius generalis MMIV-MMXIII	Secretary General
Phil Martin	consilarius	Councillor
Stephane Lucas	consilarius	Alternate Councillor
Tomas Sikola	consilarius	Councillor
Maria-Carmen Asensio	consilarius	Alternate Councillor
Martin R McCoustra	consilarius	Alternate Councillor
György Radnóczi	consilarius	Councillor
Tatsuo Okano	consilarius	Councillor
Yoshio Saito	consilarius	Alternate Councillor
Jihwa Lee	consilarius	Councillor
Jin-Hyo Boo	consilarius	Alternate Councillor
Alberto Herrera Gomez	consilarius	Councillor
Victor Hugo Méndez García	consilarius	Alternate Councillor
Joost W.M. Frenken	consilarius	Councillor
Akhtar Amin	consilarius	Alternate Councillor
Marek Szymonski	consilarius	Councillor
Miran Mozetic	consilarius	Councillor
tbc	praeses divisionis	Div Chairs

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GM-18-02-01 GM-18-02-01

#### IUVSTA Extraordinary General Meeting 2013 Paris, 11th September 2013

# Report of the Past President J.J. Pireaux

At this very special opportunity, it is a custom to look back to the recent past, and evaluate what are the accomplishments achieved during the triennium, since the last General Meeting in Beijing (2010).

The IUVSTA looks a complex machinery – with its Statutes and Bylaws, but hopefully rests on the generous involvment of very competent and devoted persons, investing time and efforts to stimulate, in many different ways, international collaborations in the fields of vacuum science, and its techniques and applications.

At IVC 18, Beijing, I looked to different ways to improve the momentum that drives the Union; I suggested that we should increase international collaboration, improve communication and team work, and I proposed a set of different small actions or behaviors, ... small actions but that should reveal efficient in the long term:

- better know each other. Our webstite has indeed been updated with a searchable directory giving a minimum of useful information; about half of the IUVSTA members have filled the form...
- work to increase the visibility of the Union. Many persons do now refer to the IUVSTA (and to the IVC conference) in their web signature
- increase team work, in between the formal Executive Council Meeting (ECM) meetings. Some groups of persons, some divisions did arrange for such discussions or meetings...
- know better the rules defining our possible actions, to optimize their results
- make an ethical use the IUVSTA resources.

Some progress has been made along these lines, but also in this spirit, the last three years have seen different larger actions aiming to further the goals of IUVSTA. This work has been accomplished within the different IUVSTA Committees and its Scientific Directorate. Some details will be given later, in the full reports of the Committees and of the Scientific Directorate. I like to briefly point out different items that have been of parrticular interest for me:

- -The IUVSTA Statutes change took place at ECM 111 in Namur, Belgium. On Sunday 13th March 2011, the long process to adapt the IUVSTA Statutes to the new Belgian law for international non-profit organizations (AiSBL) went to full completion during an Extraordinary General Meeting. The new Statutes had been agreed at the General Meeting in Beijing in August 2010. Many of us will remember for a long time the ceremony: in the presence of the Notary, Mr. Philippe Baltazar, the representatives of the member national societies did unanimously approve the new Statutes and signed the formal record of the meeting. This is now officially registered and published (Moniteur Belge) according to Belgian law.
- -The Publication Committee proposed to resume the IUVSTA News Bulletin (discontinued since 2008), to facilitate exchange of information within the Union. Issues 162 to 167 have been published at regular internal after our formal meetings.
- -I worked personnaly much for launching the World Transfer Program (WTP), a travel grant aiming to help scientists to transfer/relocate in another laboratory in another country for a few months. The launching of the project has been a failure as no grant has been awarded up to

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now, - a situation which will have to be evaluated in the near future, in the lights of the future budget of the Union, and of the future of the Welch award

- -The working group on BioInterfaces of this triennium will be receiving full Division credentials during the Paris General Meeting.
- -Personal Contacts with ECOSS chairperson and Elsevier Publ. Co. Have been established. Prof. Petra Rudolf (Groningen University) and the Congress Planning Committee will coordinate dates of conferences; for the Awards and Scholarship Committee, a memorandum of understanding signed with Dr. J.W. Wijnen (Elsevier, Amsterdam) states now precisely the aim of the award, and the rules for the competitors
- -Emerging countries: one of the objectives of IUVSTA is to promote vacuum science (in general) and offer educational and scientific services. The adhoc committee thought about what IUVSTA can offer to emerging countries, and encouraged personal contacts in different selected countries. Needless to say that these contacts will take time to mature, but there is good hope new national vacuum societies will join the Union in the near future: membership issues are indeed at the agenda of the Paris General Meeting.
- -International Vacuum Institute.

The councillor of Pakistan, Dr. Javaid Bhatti, proposed to establish an International Vacuum Institute, under the auspices of IUVSTA. This idea has been much discussed during many sessions of the Long Range Planning Committee, and a vote on the proposal is scheduled for ECM116 in Paris.

I'm more than ever convinced of the quality of the services IUVSTA is offering to the scientific community, and I hope I did help you, as a Captain, to contribute to the success of our Union... We have tried together in some way to « make something out of nothing (vacuum) », and I sincerely think we did collect some success.

I'm deeply honoured to have been able to serve as the IUVSTA President for three years; and I'm very grateful to all of you who gave to me the opportunity to do so.

To conclude, I like first to thank the IUVSTA crew in general- the Officers and the STD members, the Divisions and Committees Chairs, the Councillors and Alternate Councillors- who have brought, the IUVSTA to the present situation. Then, I'll have a few simple words for two persons:

for Ron Reid, IUVSTA Secretary General, from whom I did really learn a lot about the IUVSTA machinery,

and for François Reniers, Treasurer, who devoted much of his time, and took such good decisions for the finances of the Union.

It has been my pleasure to serve the Union, it has been a privilege to work with you. Jean-Jacques PIREAUX

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# Report of Secretary General to GM-18

on

# Triennium 2010-2013 Paris, France, 11<sup>th</sup> September 2013

#### 1 Period and activities

This report covers the period from Wednesday, 25<sup>th</sup> August 2010 till the official end of the triennium on 11<sup>th</sup> September 2013.

It should be noted that the Financial Triennium (on which the Treasurer will report) covers the three financial years 2011, 2012 and 2013.

The major activities of the Secretary General during this period were:

- general administration and correspondence
- organization of the Executive Committee Meetings with the assistance of the host National Societies
- organization of GM18 in conjunction with the organizing agents for the International Vacuum Congress
- updating and maintaining various parts of the web site
- interactions with UNESCO, ICSU, ISO, and other organizations

Some of the main points are presented below. More detailed and complete information is available in the reports to the various Executive Council Meetings, which are all available on the website.

# 2 Relations with other Bodies

#### 2.1 UNESCO

IUVSTA is a corresponding member of UNESCO, and an associate member of the NGO-UNESCO Liaison Committee.

I receive the agendas, decisions and minutes of the Executive Council and General Conference, mainly by email. A great deal of this is not particularly relevant to the work of the Union.

There are reports on many meetings and conferences but essentially none are of interest to the IUVSTA community.

We also receive invitations to meetings, which, when relevant, are passed to IUVSTA members, but as far as I am aware, none have been attended this triennium.

#### **2.2** ICSU

IUVSTA is an associate member of the International Council of Science (ICSU). Again, most material is now disseminated by email.

The ICSU Grants Programme aims at supporting relevant collaborative scientific initiatives of the ICSU "family" in order to promote international scientific and technological activities that contribute to the benefit and well-being of society but ICSU will not normally support travel grants to attend standard scientific meetings and conferences, nor support fellowship programmes.

## 2.3 ISO

IUVSTA has liaison status with ISO, and is represented on two Technical Committees: TC201 on surface analysis and TC112 on Vacuum Technology.

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TC201 is quite active, TC112 rather less so. The relevant IUVSTA Divisions maintain contact and contribute on behalf of the Union.

The weekly newsletter STADIST which lists information on newly issued, revised and withdrawn standards is distributed by email.

I receive the magazine "ISO Focus", which is published monthly. Each issue contains a special dossier on a specific sector and a supplement which lists new standards in progress.

I also received copies of Memento, which provides details of the responsibility, structure and secretariats of each of ISO's 188 technical bodies.

Members interested in the work of ISO are referred to the website www.iso.ch.

#### 2.4 Commercial Bodies

I receive copious quantities of literature and invitations from Congress Centres, meetings organizers and hotels around the world.

#### 3 National Vacuum Societies

I maintain correspondence with National Vacuum Societies. I am grateful to those Societies which promptly inform me of changes in Officers so that correspondence goes to the relevant persons.

It was with pleasure that we received an application for membership from Argentina. We also anticipate an application from Greece in the next Triennium.

#### 4 Communications and Documentation

#### 4.1 Communications

The vast bulk of communication is now by email, and this raises its own problems from time with mail boxes filling up and addresses changing. The web site is used for documentation and sharing of information.

#### 4.2 Procedures Manual, Statutes and By Laws

The Procedures Manual, Statutes and By-Laws are available on the website.

A new set of Statutes and By-Laws was adopted on 13<sup>th</sup> March 2011 at an Extraordinary General Meeting in Namur, Belgium. The main effect is that we are now constrained to annual financial budgeting and accounting, which requires Annual General Meetings to be held. However, some other operational matters are easier.

#### 4.3 Web Site

The web site was transferred to the University of Illinois which better meets our requirements. Thanks are due to Ivan Petrov, Chair of Publications and John Koudelka, the webmaster, for their hard work in effecting the transfer and in maintaining the site.

The ECM Minutes and Papers are placed in the Records Area of the Members' part of the web site by the Recording Secretary as soon after each ECM as the material is available.

#### **5** Executive Council Meetings

The following Executive Council Meetings have been held during the Triennium

ECM 110	Beijing, Peoples' Republic of China	27 August 2010
ECM 111	Namur, Belgium	13 March 2011
ECM 112	Strunjan, Slovenia	11 September 2011
ECM 113	Orlando, Florida, USA	4 March 2012
ECM 114	Bratislava, Slovakia	30 September 2012
ECM 115	Krakow, Poland	7 April 2013
ECM 116	Versailles, France	8 September 2013

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In each case (apart from ECM 110) the meeting was preceded by two days of Committee and other meetings

I would like to offer my personal thanks to all those who made arrangements for all these meetings; this requires considerable effort to coordinate travel and meetings information in a timely fashion. Thanks are also due to those societies which made offers to host the meetings and for their hospitality.

## 6 Conclusion

In conclusion, as I retire, I would like to thank all those who have helped to make my task easier over the past three Triennia, especially David Sykes for his invaluable work as Recording Secretary

Ron Reid August 2013

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# Awards and Scholarships Committee Report for the Triennium 2010-2013

Chairwoman: Chen Xu, Vice Chairman: Frank Richter,

Members: Jean-Jacques Pireaux, Mariano Anderle, Maria Carmen Asensio, Jin-Hyo Boo, Monika Jenko, Slobodan Milosevic, Ron Reid, Daniel Verniere, Martin Wüest.

The Awards and Scholarships Committee (ASC) is set up by the President and is responsible for administration and organization of international awards and prizes in the scientific and technical areas covered by the Union.

ASC meetings were held in conjunction with all ECM meetings between the International Vacuum Congresses in Beijing and Paris. Since the chairlady did not appear at any ECM, the committee meetings have been prepared and chaired by Maria-Carmen Asensio (no. 113), Mariano Anderle (no. 114) and Frank Richter (nos. 111, 112, 115).

#### **IUVSTA Prizes**

IUVSTA Prize for Science is awarded to recognize and encourage outstanding internationally acclaimed research in the fields of interest to the Union. IUVSTA Prize for Technology is awarded for outstanding experimental and/or theoretical research in vacuum science, technique or its applications.

Endowment for the Prizes is provided by generous donations from Canon Anelva Corp., Funai Electric, Intevac, Inc., Kratos Analytical, Oerlikon Balzers, Oerlikon Leybold Vacuum, Omikron nanotechnology, Osaka Vacuum, Physical Electronics, SAES Getters, TAV S.p.A., Ulvac Inc., VAT Vacuumvalves AG, IOP Publishing, and Varian Associates.

*The 2013 IUVSTA Prize for Science* was awarded to prof. Lars Samuelson from Lund University "for his groundbreaking and continuing scientific work on the mechanisms underlying epitaxial nanowire growth, enabling the bottom-up realization of radically new types of highly controlled nanostructures".

*The 2013 IUVSTA Prize for Technology* was awarded to dr. John T. Grant from Dayton University Research Institute "For Outstanding Achievements in Technology and Technique Development in Auger Electron Spectroscopy and X-Ray Photoelectron Spectroscopy, Enabling their Application to Many Practical Technological Problems".

The prizes will be presented at the International Vacuum Congress in Paris.

# Welch Scholarship

The M.W.Welch International Scholarship supports younger scientists working abroad in vacuum science and technology. The scholarship was made possible since the late 1960ies by support from M.W.Welch and the Welch family. Currently the financial support is being transformed from a yearly donation into a foundation. Therefore, the award for 2013 was suspended and next competition is for the scholarship period September 2014 - August 2015. The deadline for application is 30 April 2014

Administrator of the Welch Scholarship during this triennium was Frank R. Shepherd. The trustees of the Scholarship (elected by the IUVSTA ECM) have been Janez Setina (2007-2010), Ugo Valbusa (2008-2011), Ivan Petrov (since 2009), Lars Montelius (since 2010), Monika Jenko (since 2011) and Jin-Hyo Boo (since 2013). The terms of duty of the current trustees will be substantiated after it became clear how the award will be continued.

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The Welch Scholars of this triennium have been: Barbara Setina-Batic (2011), G. Palsson (2012) and E. Kalfon-Cohen (2013). [The year given indicates the begin of the scholarship - the price was awarded in the year before.]

## **IUVSTA-Elsevier Student Awards**

The aim of these awards is to give partial financial support to younger research students to help them to attend IUVSTA meetings and conferences at which they are presenting a paper. ("Young scientist" means that the date when the young scientist has received her/his first academic degree shall be within seven years before the start date of the conference.)

At the beginning of the triennium, a memorandum of understanding (MOU) was signed by the IUVSTA president and Dr. J.W. Wijnen from Elsevier which states more precisely the aim of the award and the rules to be maintained when the winners are selected.

3500 €have been provided every year by Elsevier B.V..

During the 2010-2013 triennium the following conferences have been supported: ICTF and ECOSS (2011), EVC and VASSCAA (2012), IVC (2013). A new MOU for 2013-16 is under preparation.

Frank Richter

F. Milw

Vice Chairman



2013-07-26

**IUVSTA** 

Department of Physics
Division of Solid State Physics
Nanometer Structure Group
Prof Lars Montelius

# **IUVSTA Congress Planning Committee Report for the 2011-2013 Triennium**

The officers of the Committee have been:

Chair Lars Montelius, <u>lars.montelius@ftf.lth.se</u>
Vice-chair: Tatsuo Okano <u>okano@iiis.u-tokyo.ac.jp</u>

Secretary: Vacant

The Ex officio Members of the Congress Planning Committe have been:

Jean-Jacques PireauxManfred LeischMariano AnderleSlobodan MilosevicMaria-CarmenAsensioPedro Augusto NascenteJose Angel Martin-GagoAlireza Z. MoshfeghJoe GreeneRon Reid

Monika Jenko Alex Shard
Laszlo Kover Daniel Verniere

Jihwa Lee

## **Objectives of the Congress Planning Committee:**

The congress planning committee has the primary objective to:

- ★ Monitor that dates and locations for "our" conferences are chosen in an optimal and sustainable way
- ★ Monitor conferences/congress ensuring quality and reporting is maintained
- ★ Activate and mentor bidding processes, especially IVC.

## Conferences supported by IUVSTA:

The following five conferences are supported by the IUVSTA

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- International Vacuum Congress (IVC), a tri-annual conference
- European Vacuum Conference (EVC), a bi-annual conference
- International Conference on Thin Films (ICTF), a tri-annual conference
- Vacuum and surface sciences conference of Asia and Australia (VASSCAA), a biannual conference.
- European Conference on Surface Science (ECOSS), a yearly conference\*.

#### Comments:

ECOSS is not a fully IUVSTA-endorsed conference. It is a joint conference between the European Physical Society/Surface Science Div of IUVSTA. IUVSTA is represented in the steering committee.

Further, IUVSTA is also engaged in the ICN+T conference series through it's NSD. So far, every third year the ICN+T has been organized jointly with the IVC. See note below. In the following we include ICN+T as a IUVSTA endorsed conference.

# Responsibilities for the IUVSTA Chairs with respect to the IUVSTA endorsed conferences:

In the table below we summarize the current situation versus the distribution of the various responsibilities for these venues:

	Responsible body	QC body	Reporting body		
IVC	Chair CPC	Chair STD	Chair IVC/CPC		
EVC	Vac Sci Tech	Chair VST	Chair EVC/VST		
ICTF	Thin Film	Chair TF	Chair ICTF/TF		
ECOSS	Surface Science	Chair SS	Chair ECOSS/SS		
VASSCAA	Surface Science	Chair SS	Chair VASSCA/SS		
ICN+T	Nano	Chair NSD	Chair ICN+T/NSD		

Table 1: A summary of IUVSTA conferences and the various bodies responsible for arranging, quality control and reporting activities.

# Planning of the various conferences

One of the important tasks for the congress Planning Committee is the interaction with the various congress proposing organizations and steering committees to ensure that the dates chosen for the various conferences are made in a sustainable and sensible way. Obviously, we strive to have the conference being distributed between various countries and over the years.

Especially, the representative of ECOSS have several times pointed out that this conference series always take place in the last week of August and first week of September. Hence, the arrangements of the last IVC, being held Aug 23-27, as well as the planning of the IVC 20 in Korea 2016 is not the most optimal choice from the view of ECOSS. The congress planning committee has a special monitoring role to avoid such problems.

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<sup>\*</sup> The ECOSS is not held when the IVC is arranged in Europe.

## Time schedules for the various meetings and conferences:

In the table below we summarize the venues and the dates for the forthcoming conferences:

	IVC	EVC	ICTF	ECOSS	VASSCAA	ECM	ICN+T
	(CPC)	(VST)	(TF)	(SS)	(SS)		(NSD)
Period	3 year	2 year	3 year	1 year	2 year		1,5 year
2011			Kyoto; Japan,	Wroclaw,			
			Nov 8-11	Poland			
				Aug 28-2 Sept			
2012		Dubrovnik		Edinburgh	Islamabad	113: USA	Paris,
		Croatia,		CD Aug Comb	Pakistan,	114: Slovakia	France,
		June 4-8		GB, Aug-Sept	Oct 9-12	114: Slovakia	July, 23
							-27
2013	Paris,			None		115: Krakow	Joint
	France					116: Paris	with IVC -
	Trance					110. Faris	contacts
	9-13 Sept					117.1 a115	
2014		Portugal,	Croatia+	Turkey	Taiwan	118	USA,
		Alveiro	Slovenia+ Hungary	Aug-Sept		119	July 19-26
		June 22-27	ictf.16 com				Sutter/
		,					Stroscio
2015				Aug-Sept			?
				(France?)			
2016	Busnan,	X		Aug-Sept	Joint		Joint
	Korea, 22-26 Au			(France?)	with IVC		with IVC

Table 2: A summary of planned conferences being supported by the IUVSTA.

#### Comment on the relation between IVC and ICN+T conference series.

In conjunction with the last IVC in China 2010, there was a steering committee meeting for the ICN+T conference series. The committee decided to runt the ICN+T in an 18 month period, having every second ICN+T to be jointly organized with the IVC and every second conference as a standalone conference. It was decided to have a bit different scopes of the two periodical conferences where the standalone ones are supposed to focus more on the SPMtool oriented nanoscience activities and where the one being run together with IVC should have a more general nanoscience focus. However, these points are only to be interpreted as to give a flavor of the scope of the periodical ICN+T conferences. The main scope is always Nanoscience and technology. This aspect is important to remember when the IVC's are planned so that the ICN+T is not reduced to become just a small part of the IVC. It is important to remember that the scope of the ICN+T is much larger than just the scope of the NSD-division of IUVSTA. Since the ICN+T conferences have a participation level of around 1000 delegates, it is a vital and extremely important part of the IVC-congress. If the IVCorganizers do not include the ICN+T steering committee in an appropriate way, conveying a feeling of that their interest are not being considered and nurtured, we may not only face the loss of the ICN+T community in the IVC but also a fierce competition with that conference series, being run outside of the IUVSTA. Further, at the last SC meeting of ICN+T 2012, held in Paris, one could note that there is a polarization in the SC with regards to whether ICN+T shall sustain a Nanoscience in general flavor or whether it should be a more STMoriented event. Depending on the outcome, the inclusion of ICN+T in future IVCs are jeopardized.

In summary, it is of great importance that IVC-organizers establish close contact with IPC of the ICN+T conference series. The chairman of the IPC of ICN+T is presently Prof Roland Wiesendanger. Further, IUVSTA members, especially from the NSD, have to stay in close contact with the SC of ICN+T preferentially as members of it.

# IVC 21 (to be held 2019) bidding procedure:

The Chairman of the IPC sent out invitation to all national associations in January 2013 asking to receive bids in accordance with the statutes (encl 1). The guide lines for bids are clear and can be found on the IUVSTA website (encl 2). The bids were received and discussed at the subsequent ECM-meeting in spring 2013. To allow a good oversight of the details in the various bids, a table was compiled having the most important elements of consideration. An exempt of the table is shown below (Table 3).

At the spring CPM it was concluded that the bids were not fully comparable and therefore it was decided to ask for updated bids to be delivered before summer. When comparing these bids, it was further found that two bids were lacking enough details in some aspects (marked with red in Table 3 below. Therefore, the Chairman, after consultation of the CPC, asked the bidders once again for updated bids that are due Aug 10, 2013, leaving some time for final checks before the CPC meeting, to be held in conjunction with the ECM before the IVC 19 starts, that will make the decision of the venue for the IVC 21 in 2019.

Evaluation Criteria:		
Scientific qualified scientists for helping in organizing the event		
National institutions that can assist in attracting sponsors		
Date (conflict w other events, low airfare season		
Accessibility, nearest airport		
# of international connections		
Public transportation- airport to venue		
Time and cost		
Adequate facilities		
(conf rooms etc)		
Parallell sessions, how many?		
Who will underwrite the conference?		
Who will run the congress		
How many papers can be accepted?		
Registration fees (incl VAT) Euro		
Regular: Early (Standard) (On-site)		
Students: Early (Standard) (On-site)		
What is included in reg fee? Meals etc?		
What costs for invited speakers will be covered?		
Hotel price range: w or without bkfst?		
Donations to IUVSTA		
Plans for the exhibition (location, size, opening times)		
Plans for associated short courses		
Plans for Social Programs, what is free of charge?		
Plans for Companions program		
Extra		
Budget		
Break even		

Table 3: A list of the most important elements of consideration for bid evaluation.

Lund as above

Lars Montelius

Professor

Chair Congress Planning Committee

Enclosure 1: The invitation letter to national Vacuum Scoieties

Enclusure 2: The Guidelines for submission bids for IVC.

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Dear National Vacuum Societies of IUVSTA,

it is time to start the procedure for selecting the host of the IVC21 congress to be held in 2019.

Therefore, as Chair of the CongressPlanning Committee I am delighted to ask you to prepare your bids to the most important event of IUVSTA, the Triennial Congress IVC. Your bids are due January 31, 2013. You should send your bids by email to the Chair of Congress Planning and to the IUVSTA secretary general.

Mark the mails "Bids for Hosting IVC21" and send to e-mails: Lars Montelius <a href="mailto:lars.montelius@ftf.lth.se">lars.montelius@ftf.lth.se</a> Ron Reid <a href="mailto:lars.montelius@ftf.lth.se">lars.montelius@ftf.lth.se</a>

The procedure in short is the following:

- 1. Bids are due by January 31 2013.
- 2. Pre-screening of bids will be done before ECM 115 in Krakow in April 2013.
- Serious screening of best bids will be done during ECM 115.
- 4. Final selection of bids will be done at ECM 116 (just before IVC 19 in Paris September 2013).

In the attached file "Guidelines...." you find more detailed information as well as suggestions how your bids are to be organized and which questions should be answered in your bid.

If you like further information about the procedure, you can find that in the procedures manual (IUVSTA website, private section (member services, meantime section, procedures manual (2005)), pages 55 to 64.).

Attached: Guidelines for Making a Proposal to Host the IUVSTA Triennial Congress

Yours Sincerely

Prof Lars Montelius Chair of Congress Planning Committee

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# Guidelines for Making a Proposal to Host the IUVSTA Triennial Congress

- 1. General
  - 1. 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.
  - 2. 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.
  - 3. In all instances the participants (attendees) in the Congress must be treated equally with respect to race, sex, colour and national origin.
  - 4. 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.
  - 5. A completed questionnaire and check list which the Congress Planning Committee (CPC) and the Executive Council will use for judging the applications of national vacuum organizations is attached (Annex 1).
  - 6. 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
- g. There are three specific goals of each Triennial Congress:
  - i. To provide a forum where individuals from different countries can meet to discuss scientific and technical matters of interest to IUVSTA.
  - ii. To provide an opportunity for cross-fertilization among the various scientific interests of the IUVSTA Divisions.
- iii. To provide access to an exhibition of the latest vacuum related equipment.
- 3. Organization
  - 8. 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!
  - 9. 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

—59— Procedures Manual v2.0 Dec 2005

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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.

- 10. 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).
- 11. 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

- l. 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.
  - 13. 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.
  - 14. The chair of the Program Committee will determine who has primary responsibility for organizing joint inter-divisional sessions, initiation of invited speaker selection, etc.
  - 15. The chair of the Program Committee makes all formal invitations to speakers and plenary lecturers.
  - 16. IPC's make suggestions of plenary lectures and their topics. These should be of potential interest for a large cross section of attendees.
  - 17. The suitability of having a manufacturer's "new products seminar" is determined by the Program Committee at an early date.
  - 18. 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.
  - 19. The exhibition of vacuum related equipment should be well integrated with the scientific part of the Congress.
- —60— Procedures Manual v2.0 Dec 2005
  - 5. Finance
    - 20. 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

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- if the Congress is a financial failure. In this case, the host national organization has to assume all debts.
- 21. A preliminary budget must be submitted with the proposal to host the Congress.
- 22. 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 SFr based on 1986 costs. It must be assured that this donation is voluntary, i.e., it is not a prerequisite for hosting the Congress.
- 23. 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.
- 24. 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 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.

—61— Procedures Manual v2.0 Dec 2005

#### Annex 1

# 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

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# PLANS FOR SOCIAL PROGRAM PLANS FOR COMPANION'S PROGRAM

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#### **EDUCATION COMMITTEE**

#### Report for the triennium 2010 – 2013

Chair: Miran Mozetic

Vice-chair: Andrej Vincze

Members: Jean Jaques Pireaux (president), Mariano Anderle (president-elect), Christoph Eisenmenger (scientific secretary), David Ruzic (STD director), Ron Reid (secretary general), David Sykes (recording secretary), Francois Renoirs (treasurer), Mark Kushner, Slobodan Milosevic, Alireza Moshfegh, Pedro Nascente, Yoshio Saito, Morteza Zargar, Martin Wuest, Maria Asensio, Joe Greene, Laszlo Kover, Manfred Leisch, Alberto Tagliaferro, Daniel Verniere.

The following briefly reports on the activities of the IUVSTA Education Committee during the triennium 2010 - 2013.

#### Committee activities:

- 1 Visual aids
- 2. Technical training courses
- 3. Short courses
- 4. Schools
- 5. Review papers
- 1. Visual aids. The visual aids have been prepared in past triennia (before 2010) but not completed. According to the rules adopted in previous triennia the aids were offered for selling: the price of one module was set to 70 EUR, whole package 300 EUR. There was little demand; only 6 packages were sold over many years, only one in 2010, none thereafter. At ECM 111 in Namur, Belgium, the IUVSTA President also reported unfinished modules. An idea about making the modules free of charge has been launched. At ECM 112 in Strunjan, Slovenia, the members of the Committee agreed to send a questionnaire suggesting free distribution. The vast majority of national societies agreed. The Executive council members confirmed free distribution at ECM 113 in Orlando, USA. The Chair of Education committee examined the aids carefully and found numerous deficiencies, especially incompatibility with current software. The ECM 114 in Bratislava, Slovakia, brought the decision to authorize Wolfgang Werner from the Austrian vacuum society to make a good deficiency of the aids. Extensive work has been performed but currently not all the aids have a uniform impression. As soon as the job is finished the aids will be available at the IUVSTA

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webpage. The executive council members agreed that each user should register before downloading the aids so that IUVSTA could keep track of the users.

2. **Technical training courses (TTCs).** At the IUVSTA General Meeting held in Beijing, August 25<sup>th</sup>, 2010, it was decided that in the 2010 - 2013 triennium a sum of 20.000 EUR was allocated to support Technical Training Courses with a grant of 2.500 EUR per TTC. With this budget it is possible to support 8 Technical Training courses within a triennium. The following courses have been organized and reports received:

IUVSTA TTC #13 organized by the Czech Vacuum Society, held in Pyramida – Panský dům hotel, Jizerské hory mountains, Jizerka 20, 46850 Polubný, Czech Republic, 21-24 May, 2012. The TTC was attended by 51 persons – students, young researchers and technicians from the whole country working in the field of vacuum deposition techniques and related branches.

IUVSTA TTC #14 was organized by the Slovak Vacuum Society and held in Štrbske Pleso, 8-12 November, 2012. The participants of the TTC were 17 persons in total, mainly students of the universities from Bratislava and Žilina, but also students from Institutes of the Slovak Academy of Sciences, technicians from an Institute of the Czech Academy of Sciences and company employees.

Only 2 out of available 8 grants have been allocated. The members of the Committee found the regulations too restrictive. According to the rules adopted at the IUVSTA General Meeting held in Beijing, August 25<sup>th</sup>, 2010, the eligibility criterion for a TTC is that the gross domestic product (GDP) at purchasing power parity (PPP) of the respective country is below the average value of the GDP PPP of all IUVSTA members. At the ECM 115 in Krakow it was decided to loosen the regulations by dropping this criterion in order to attract more bids.

3. **Short courses.** A 2-Day Short Course on Vacuum Science & Technology was organized by the Pakistan vacuum society 3-4 November 2010 as a satellite meeting of the International symposium on vacuum science and technology at the National centre of physics, Islamabad. An extensive report was presented at ECM 111 in Namur. Over 150 participants attended the short courses on Plasma in industry, Surfaces of materials, Vacuum in renewable energy technology and Vacuum science and technology. An IUVSTA grant of 10.500 USD was allocated.

Another set of short courses was organized also in Pakistan as a satellite meeting of the VASSCAA conference, October 9-12, 2012, Islamabad, Pakistan. The subjects of the courses were Chemical cleaning techniques for vacuum systems, Modern trends in vacuum technology, Techniques for surface analysis and Vacuum Techniques in Renewable Energy Technologies. This set of short courses was approved by ECM 113 in Orlando. Although the requested IUVSTA support was 20.000 USD the ECM

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members approved 7.500 EUR only. The courses were attended by hundreds of participants who also attended the VASSCAA conference.

No proposal has been received for organization of a technical short course from other national societies. The members of Education committee agreed that the rules for bids submissions are not clear so they should be amended for the next triennium. At ECM 114 the members of Executive council authorized the current Scientific Secretary, Christoph Eisenmenger-Sittner to prepare amendments by the ECM 116 in Paris in September 2013.

4. **Schools.** 10<sup>th</sup> IUVSTA summer school on Physics at nanoscale was organized by Czech vacuum society at Devet Skal from 30<sup>th</sup> May to 4<sup>th</sup> June 2011. The school brought together 166 attendees (15 speakers, 128 participants and 23 company representatives) from 15 countries. The IUVSTA grant of 6.000 EUR as well as support of companies enabled keeping a very low school registration fee thus attracting numerous attendees.

11<sup>th</sup> IUVSTA International School on Lasers in Materials Science (SLIMS2012) was held on Isola di San Servolo, Venice, Italy, 8-15 July, 2012. The School was organized in the framework of the IUVSTA activities within the Surface Engineering Division (SED) and in cooperation with the Venice International University (VIU), NSF, Politecnico di Milano, Laserlab Europe and the AIV - Associazione Italiana di Scienza e Tecnologia. The school was attended by 25 students from 13 countries. IUVSTA grant of 6.000 EUR was allocated.

5. Review papers. IUVSTA visibility in the international scientific community should be enhanced. To this end, the Committee chair launched a suggestion to write review papers at ECM 114. As a first attempt the Committee chair suggested a review paper entitled Recent advances in vacuum sciences and applications. The invitation for submission of such a review paper was received from the Editorial Board of Journal of Physics D: Applied Physics on March 2013. Reviews in Journal of Physics D: Applied Physics should be about 12-18000 words long, including space for figures, graphs and so on. Authors are paid an honorarium of £300GBP for the article on publication. All authors and members of the Educational committee agreed the honorarium will be granted to IUVSTA. The corresponding author of the paper will be M. Mozetič and M. Kushner kindly agreed to perform the final editing. The deadline for paper submission is August 2013. The paper will be based on advances presented at ECM 114 in Bratislava.

Committee chair: Committee vice-chair:

Miran Mozetič Andrej Vincze

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# Frederick Seitz Materials Research Laboratory

and

Center for Microanalysis of Materials (DOE National User Facility)

University of Illinois College of Engineering 2015 MRL, MC 230 104 South Goodwin Ave. Urbana, IL 61801-2985 J.E. Greene D.B. Willett Professor of Materials Science and Physics jegreene@uiuc.edu

# **IUVSTA Emerging Society Committee Report for the 2011-2013 Triennium**

This was a very active triennium for the IUVSTA Emerging Society Committee with considerable progress. Participating committee members during this triennium include Mariano Anderle, Maria Ascensio, Alberto Herrera Gómez, Monica Jenko, Miran Mozetic, Tatsuo Okana, Jean-Jacques Pireaux, Ron Reid, and Daniel Verniere. In addition, important contributions were made by observers in attendance including Cristoph Eisenmenger-Sittner, Laszlo Kover, Mark Kushner, M.G. Barthes-Labrousse, Manfred Leisch, Paolo Manini, Leszek Markowski, Slobodan Milosevic, Lars Montelius, Miran Mozetic, Jean-Jacques Pireaux, Francois Reniers, David Ruzic, David Sykes, Peter Varga, and Martin Wuest.

Primary topics of discussion and areas of progress are summarized below.

1. The triennium began with a broad discussion of approaches for enhancing the visibility of IUVSTA in worldwide scientific and technological communities and increasing the membership in our union. It was clearly recognized that this is not a job for a single individual, but requires the active participation of a broad cross-section of IUVSTA members (officers, committee chairs, councilors of member countries, and other active participants). That is, it is up to all of us to discuss the benefits of IUVSTA membership with our colleagues.

In fact, IUVSTA offers a wide range of professional services appropriate for interested persons across all educational levels: graduate students, post-doctoral students, scientists, technologists, managers, etc. Joe Greene developed the following (incomplete) list of activities as points for discussion with colleagues:

- Triennial IUVSTA congresses
- Co-sponsored conferences (ICTF, ECOSS, EVC, VASSCAA)
- Short courses
- Workshops (designed for experts in the field)
- Schools (designed primarily for students and those moving into a new field)
- Technical Training Courses
- Visual aids
- Technical material available on the IUVSTA website
- News Bulletins
- Welch Scholarship Awards
- IUVSTA is a member of ICSU and UNESCO
- IUVSTA participates in setting ISO standards
- IUVSTA provides multiple opportunities for interacting with international colleagues.

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- 2. Another important mechanism for familiarizing colleagues with IUVSTA is the use of a few powerpoint slides, describing the benefits and functions of IUVSTA, shown as introductory information at meetings and workshops or at the beginning of lectures and invited talks at conferences and other venues. Ron Reid has prepared information which can be used to construct appropriate slides. It is available on the IUVSTA website under: Member services/Meantime/Wiki/A simple guide to IUVSTA. Several ESC members and observers have reported using such slides and successfully generating new interactions.
- 3.Many committee members expressed concern that, like many national vacuum societies, we are constrained by the term vacuum in our name. While vacuum-based research and technology is still very important to the union, many of our members do not use vacuum at all and are more interested in, for example, solution-based synthesis and processing. Perhaps more importantly, there is a worry that our name may be inhibiting groups from joining our union. A suggestion was made by Ron Reid that we consider adding a tag line to IUVSTA which better expresses the breadth of our union in dealing with the science and technology of materials, interfaces, nano/bio, etc. The issue was passed to the Long-Range Planning Committee for consideration.

This led, in turn, to a continuing discussion of how we best communicate to potential members the breath of IUVSTA science and technology. Simply listing our divisions (Applied Surface Science, Biointerfaces Steering Group, Electronic Materials and Processing, Nanometer Structures, Plasma Science and Techniques, Surface Engineering, Surface Science, Thin Films, and Vacuum Science and Technology) establishes to colleagues that we are very much broader than vacuum technology; we also encompass most of materials and interface science.

- 4. Emerging Society Committee members as well as interested IUVSTA officers, committee chairs, and councilors agreed to develop a network of contacts in non-member countries. This program has been extremely successful in raising the visibility of IUVSTA and has already led to several countries expressing interest in joining or rejoining, after having allowed membership to lapse, our union. The evolving list of counties in which IUVSTA members have established contacts and initiated dialog, with the corresponding IUVSTA member names, include the following.
  - · Argentina: Monica Jenko, Maria Asensio, Mariano Anderle
  - Algeria: Daniel Verriere
  - · Baltic Countries: Laszlo Kover and Lars Montelius
  - · Bosnia: Monica Jenko
  - Chile: M.G. Barthes-Labrousse
  - Denmark: Lars Montelius
  - Greece: Ron Reid, Miran MozeticMalaysia: Jean-Jacques Pireaux
  - · Nepal: Mark Kushner
  - Norway: Lars Montelius, Laszlo Kover
  - Philippines: David Ruzic
  - Saudia Arabia:

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Singapore: Joe GreeneSerbia: Miran Mozetic

South Africa: Jean-Jacques Pireaux
 Turkey: Laggle Keyer, Martin Wuset

Turkey: Laszlo Kover, Martin Wuest

· Vietnam: David Ruzic.

Counties expressing immediate interest to join IUVSTA include Greece, Argentina, and Vietnam; they are presently following the required procedures leading to membership. Other countries which have expressed interest in establishing, or reestablishing, a closer relationship with IUVSTA, but are not yet ready to join, include Norway, Serbia, and Turkey.

5. The Emerging Societies Committee discussed and enthusiastically agreed to promote the new IUVSTA "Global Development Conference Series" proposed by Maria Asensio and Monika Jenko. The concept is to hold international scientific conferences, preferably in countries not yet members of IUVSTA, which also contain sessions and/or events such as panel discussions, focused on important social issues which are common to most emerging societies.

Asensio and Jenko proposed Argentina, where they have developed strong contacts over a long period, as a test case for developing procedural and logistic aspects. Joe Greene suggested that, based upon recent discussions with Orlando Auciello (current MRS President), we consider partnering with MRS for this initial conference. Auciello has identified a source of funding to establish an international conference in Argentina, while Ascencio and Jenko have the contacts to supply a venue. Moreover, IUVSTA could consider providing some start-up funds for an IUVSTA Workshop or School that could be a satellite to an international Global Development Conference in Argentina. Greene agreed to get Auciello in contact with Asensio and Jenko.

In summary, this triennium has been a very lively and exciting one due to the active volunteer participation of many IUVSTA members who believe in, and have worked hard to, further the goals of the Emerging Society Committee. It was a privilege to work with such an enthusiastic group.

Respectfully submitted,

J.E. Greene

D.B. Willett Professor of Materials Science and Physics, University of Illinois Tage Erlander Professor of Physics, Linköping University, Sweden University Professor of Materials Science, National Taiwan Univ. Science & Technology

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# Long Range Planning Committee Report to the 18th General Meeting for Triennium 2010-2013

Chairperson: Mariano Anderle (President-elect)

Secretary: Nikola Radic (Alternate Councillor of Croatia)

Committee members: JJ Pireaux (ex-officio, President), MC Asensio, J-H Boo, C Eisenmenger-Sittner, L Kover, L Montellius, R. Reid (Secretary General), F Richter, A Shard, D Verniere, T Okano.

The Committee met five times during the triennium, at ECM111, ECM112, ECM113, ECM114, and ECM115, in Namur, Strunjan, Orlando, Bratislava and Krakow respectively. All the very participated meetings focused the attention on some items LRPC Chairperson does consider strategic for the future of the Union, i.e. give visibility and structures to new scientific topics and communities; understand needs and return solutions to emerging countries; improve scientific and educational offer; dedicate more attention to IUVSTA web site.

All these discussions contributed to establish some important actions which will positively influence the medium and long term scenario of the Union:

- 1) The birth at the GM18 of the Biointerface Division and the set-up by ECM of the Working Group on "Future Directions on Science and Technology", chaired by Ulf Karlsson, will enlarge the IUVSTA portfolio towards new scientific directions and people.
- 2) The International Vacuum Institute initiative proposed by the Pakistan Vacuum Society and the "soft" endorsement, IUVSTA is proposing in regards of it, could be an effective procedure on how "return solutions" to all the member and not member countries interested in the IUVSTA activities.

Long Range Planning Committee considered very important for the IUVSTA future the fact that the IUVSTA Committees should work all together in a coordinated way. From this point of view, LRPC appreciated very much the cooperative work done by the Emerging Societies Committee in enlarging the interaction with new countries, the effort done by the Publication Committee for creating a web site very useful to all the IUVSTA members and the document prepared by Martin Wüest regarding all the private and public initiatives around the world about training courses and educational proposals on vacuum science and technology.

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# Report of the IUVSTA Publications Committee September 2013

Chair Ivan Petrov petrov@illinois.edu

Ex officio Jean-Jacques Pireaux jean-jacques.pireaux@fundp.ac.be

Mariano Anderle mariano.anderle@provincia.tn.it

Maria-Carmen Asensio maria-carmen.asensio@synchrotron-soleil.fr Christoph Eisenmenger-Sittner christoph.eisenmenger@ifp.tuwien.ac.at

Ron Reid iuvsta.secretary.general@ronreid.me.uk Alberto Tagliaferro alberto.tagliaferro@polito.it

Daniel Verniere daniel.verniere@wanadoo.fr

Web-master John Koudelka john.koudelka@gmail.com

#### 1. IUVSTA Newsbulettin

The publication of the Newsletter resumed in 2011 with five issues thus far #162-166: March 2011, July 2011, January 2012, July 2012, December 2012, and July 2013.

The issues are archived at <a href="http://iuvsta-us.org/iuvsta2/index.php?id=35">http://iuvsta-us.org/iuvsta2/index.php?id=35</a>

As a rule Newsbulletins follow ECMs and contain updates on the Divisions,' Committees', and Union's activities. The newsletter is distributed through email to all people active in IUVSTA and posted on the web-site. The feedback is positive and the newsletter seems to play a useful role in keeping everyone informed. The committee intend to continue the tradition into the next triennium.

#### 2. Directory

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A web-based data entry form was developed in 2012, which served to update the IUVSTA active directory.

# http://iuvsta-us.org/iuvsta2/index.php?id=2043

The form has the following fields: first name, last name, email, country, institution, IUVSTA position, expertise.

About half of the ~280 IUVSTA members (officers, councilors, division representatives), active the current triennium, have filled in the form. The rest the people have been entered with names, email, and country. Only two-three emails are not valid.

The directory is current and can be search by any of the fields in the form. Please give it a try. Note that the directory is accessible in the "members-only-area", i.e. protected by a password. The committee intends to maintain an updated directory with the new names in the next triennium.

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# 3. Events calendar

At the request of the President Jean-Jaques Pireaux a special attention was paid to make the events calendar easily assessable:

- future events are listed on the left panel of the main page under "Meetings and Conferences" and "Workshops and Schools"
- Recent and future events are listed at the "events calendar" with a link on the right panel of the main page.

http://iuvsta-us.org/iuvsta2/index.php?id=508

• In addition the all workshops and schools are listed with detailed information and reports at dedicated pages:

http://iuvsta-us.org/iuvsta2/index.php?id=22 http://iuvsta.org/iuvsta2/index.php?id=640

## 4. General

The main purpose of the IUVSTA web-site is to facilitate communication between the active IUVTSA members. It houses official minutes and records (in the members only area) dating back to 2001, informs about past and future events, including workshop and school reports.

Division and Committees are encouraged to provide content and to keep their pages current.

The publication committee will provide assistance in posting material on the web.

Comments are welcome.

Ivan Petrov

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# IUVSTA Statutes Committee Report to GM 18, 2013

The Statutes Committee has met regularly at the meetings of the Executive Council throughout the Triennium.

Following the intensive work of the Committee in Triennium 2007-2010 leading to the adoption of a new set of Statutes and By-Laws, approved initially at GM 17 in Beijing, China in August 2010 and formally at an Extraordinary General Meeting in Namur, Belgium on 13<sup>th</sup> March 2011, the work of the Committee this Triennium has been light.

Three pieces of work have been undertaken

- 1. Working out the implications of the new Statutes to generate a new set of Annual Meetings
- 2. Consulting with the STD to amend the By-Laws to make the formal structure of the Divisions simpler
- 3. Agreeing changes in the share structure for three member Societies

At a late stage, the Committee, through the Chair, agreed that a membership application by a new Society in Argentina be approved

I want to thank the members of the committee for their diligence.

Ron Reid Chair August 2013

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Report of the Scientific Director 2010 – 2013 Triennium David N. Ruzic August 13, 2013

#### I. Introduction

This was a very productive three years. For the first time since my tenure at Scientific Director we had at least one meeting with all of the scientific division chairs present. Generally the chairs were very responsive and responsive to their members. This report will describe the initiatives undertaken and their results.

#### II. Workshops and Schools

Workshops and Schools are the bread and butter of the STD. We had many excellent proposals over the last three years, and managed to spend our entire budget on high-quality scientific offerings. The following 10 workshops and 2 schools were (or will be) held:

# **Workshops:**

#### 2010:

• **63rd IUVSTA Workshop** (Vacuum Science and Technology) "Surface Phenomena Limiting Ultimate Pressures in Vacuum Systems" Avila, Spain

14-19 September 2010

Web: <a href="http://www.icmm.csic.es/aseva/ws60.html">http://www.icmm.csic.es/aseva/ws60.html</a> Final Report (pdf Format, 714kB): Workshop 63

#### 2011:

**64th IUVSTA Workshop** (Vacuum Science and Technology Division) "Practical Applications and Methods of Gas Dynamics for Vacuum Science & Technology"

Leinsweiler, Germany May 16 - 19 2011

Web: <a href="http://www.itep.kit.edu/VGD-2011.php">http://www.itep.kit.edu/VGD-2011.php</a> Final Report (pdf Format, 156kB): Workshop 64

# 2012:

• **65th IUVSTA Workshop** (Applied Surface Science Division and Biointerfaces Division)

"Measuring Molecular Adsorption at the Solid Liquid Interface" Peckforton Castle, Cheshire, UK

May 14 - 18 2012

Web: <a href="http://www.iuvsta65.org/">http://www.iuvsta65.org/</a>

Final Report (pdf Format, 2.8MB): Workshop 65

<u>66th IUVSTA Workshop</u> (Applied Surface Science Division)

"Friction Under Controlled Environments"

Hotel Reina Isabel, Avila, Spain

July 9 - 12 2012

Web: <a href="http://www.icmm.csic.es/aseva/ws26.html">http://www.icmm.csic.es/aseva/ws26.html</a> Final Report (pdf Format, 695kB): <a href="https://www.icmm.csic.es/aseva/ws26.html">Workshop 66</a>

<u>67th IUVSTA Workshop</u> (Surface Engineering and Thin Film Division)

"High Temperature amorphous and nanostructured ceramic coatings: challenges and opportunities"

STFC Daresbury, UK

September 23 - 27 2012

Web: <a href="http://www.cockcroft.ac.uk/events/IUVSTA">http://www.cockcroft.ac.uk/events/IUVSTA</a> 67/index.html

Final Report (pdf format, 120 KB): Workshop 67

<u>68th IUVSTA Workshop</u> (Surface Engineering and Thin Film Division)

"Multifunctional Surface Engineering for Advanced Energy Applications"

City University of Hong, Hong Kong, PRC

December 09 - 13 2012

Web: http://www.cityu.edu.hk/cosdaf/MSEAEA2012/Index.htmlbr

Final Report (pdf format, 200 KB): Workshop 68

• **69th IUVSTA Workshop** (Plasma Science and Technique Division)

"Oxidation of Organic Materials by Excited Radicals Created in Non- Equilibrium Gaseous Plasma"

Hotel Raj Krvavec, Cerklje na Gorenjskem, Slovenia

December 09 - 13 2012

Web: http://plazma.ijs.si/IUVSTA2012/IUVSTA69.html

Final Report (pdf format, 323 KB): Workshop 69

#### 2013:

70th IUVSTA Workshop (Applied Surface Science Division)

"International Workshop for Surface Analysis and Standardization 2013 (iSAS-13)" Okinawa-Jichikaikan, Okinawa, Japan

January 15 - 19, 2013

Web: <a href="http://www.sasj.jp/iSAS/iSAS13/index.html">http://www.sasj.jp/iSAS/iSAS13/index.html</a>

Final Report (pdf Format, 156 kB): Workshop 70

71st IUVSTA Workshop (Applied Surface Science Division)

"Electron beam based characterization of nanostructures"

Herrnstein Castle (near Vienna) Austria

June 24 - 28, 2013

Web: <a href="http://www.iap.tuwien.ac.at/www/iuvsta71/index">http://www.iap.tuwien.ac.at/www/iuvsta71/index</a>

Final Report

# 2014:

• <u>72nd IUVSTA Workshop</u> (Surface Engineering Division, Thin Film Division, Plasma Science and Technology Division)

"Plasma-assisted vapour deposition of oxide based thin films and coatings" Schloss Seggau, Austria

April 06 - 11, 2014

Web: <a href="http://iuvsta72.unileoben.ac.at">http://iuvsta72.unileoben.ac.at</a>

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# **Schools:**

# 2011

10<sup>th</sup> IUVSTA School on

Physics at Nanoscale May 30 - June 04, 2011 Devet Skal, Czech Republic

Final Report (pdf Format, 259kB): School 10

#### 2012

11<sup>th</sup> IUVSTA School on

SLIMS-International School on Lasers in Material Science – Tailoring Film Structure and Properties

July 08 - 15, 2012

San Servolo Island, Venice, Italy

Final Report (pdf Format, 1.61 MB): School 11

#### III. Other Activities

During this triennia, a few new initiatives were started:

1. The first was a member directory which allows us to have a searchable data base of the scientific interests and affiliations of the members of the organization. In the next triennia we will "require" every one appointed as a representative of a division to sign up for the directory. This should help fully populate the directory and make it a more useful tool.

- 2. A World Transfer Program was also created to allow a young scientist to work in another country for many months. Work is still needed to make this program more attractive and will also be taken on in the next time period.
- 3. The Biointerfaces group which operated as a division this last three years was approved to become a full-fledged division for the next three-year period.
- 4. As usual, much work was done on the scientific program for the IVC meeting, which appears to be headed toward considerable success.
- 5. It was proposed by the Secretary General, Ron Reid to remove the body of the divisional committee from the divisional structure. During division elections therefore chair, vice chair and secretary would be directly voted by the whole divisional college. As a means to ensure that the divisional officers are willing to serve the secretary general would explicitly ask the national vacuum societies whether these persons would be willing to do this work. Only persons explicitly willing to serve would be candidate to a vote as divisional officer. This proposal was unanimously approved and has come into effect for the present divisional elections.
- 6. The President Elect, Mariano Anderle, initiated the creation of a working group "Future Directions of Science and Technology" for STD to persue. Ulf Karlsson will act as chair of this group

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# **Applied Surface Science Division**

# **Triennial Report (2010-2013)**

László Kövér - Chair, Vladimir Matolin – Vice chair, Alberto Herrera Gómez – Secretary Committee Members: John T. Grant, Florence Mercier-Bion, Dae-Won Moon, Wolfgang Werner

Co-opted Members: Birgit Hagenhoff, Alexander Shard, Shigeo Tanuma

**IUVSTA Workshops:** During the 2010-2013 triennium the Division sponsored three

successful IUVSTA Workshops and one in addition was co-sponsored

by the Biointerfaces Steering Group. The Final Reports of the

Workshops are available at the IUVSTA webpage:

http://www.iuvsta.org

*65<sup>th</sup> IUVSTA Workshop* (Sponsors: Applied Surface Science Division, Biointerfaces Steering Group)

"Measuring molecular adsorption at the solid-liquid interface", Peckforton Castle, Cheshire, UK.

14-18 May, 2012

66th IUVSTA Workshop (Sponsor: Applied Surface Science Division)

"Friction under controlled environments", Ávila, Spain 9-12 July, 2012

70<sup>th</sup> IUVSTA Workshop (Sponsor: Applied Surface Science Division)

"International Workshop for Surface Analysis and Standardization 2013 (iSAS-13)", Okinawa-Jichikaikan, Japan

15-19 January, 2013

71<sup>st</sup> IUVSTA Workshop (Sponsor: Applied Surface Science Division)

"Characterisation of Nanostructures by means of Electron Beam Techniques", Hernstein Castle, Austria

24-28 June, 2013

## **IUVSTA Prize for Technology**

The 2013 year IUVSTA Prize for Technology will be given at the IVC-19 conference in Paris to John T. Grant, a member of the ASSD Divisional Committee.

# IVC-19/ICSS- 15 and ICN+T 2013 - Paris, September 9-13, 2013

The International Scientific Committee of the Applied Surface Science part of the IVC-19 (with the ASSD Chair and further 10 Members of the ISC from the ASSD) was working together and cooperating with the Program Committee of IVC-19 successfully and put together an attractive program. The Applied Surface Science part of IVC-19 has 1 Keynote and 9 Invited speakers, 10 oral sessions plus 4 joint oral sessions (with 5 Invited speakers) together with the Surface Engineering, Bio-Interfaces and Energy and Sustainable Development parts of the IVC-19 and in addition, 3 poster sessions and 3 joint poster sessions

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with the Bio-Interfaces, Nanoscience and Technology, Surface Engineering and Energy and Sustainable Development parts of the IVC-19.

# Elections of the ASSD officers for the triennium 2010-2013

The ballot is being conducted by the Scientific Secretary through E-mail, the results will be available after the submission of the present Triennial Report.

# Proposed goals for the Applied Surface Science Division for the next triennium

- 1., to sponsor a IUVSTA School in a non-member country (preferably with intention to be a member country)
- 2. to sponsor a Workshop on fundamental problems and applications of electron transport e. g. in carbon based surface and interface structures (including graphene and nanotubes)
- 3., to enhance the Applied Surface Science related information available at the IUVSTA website (e. g. to make accessible the ISO Vocabulary on Surface Chemical Analysis).

# Acknowledgements

I would like to express my thanks to the members of the ASSD Divisional Committee and ASSD Divisional College, as well as to the officers of IUVSTA for their continuous support over the past triennium.

Respectfully submitted, August 2013.

László Kövér ASSD Chair

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# Surface Engineering Division Report September, 2013

Member Society Representatives:

Christian Mitterer, Christian.Mitterer@unileoben.ac.at, Austria, Secretary

M. Van Stappen, Marc. Van Stappen @sirris.be, Belgium

Clodomiro Alves Junior, clodomiro@dem.ufrn.br, Brazil

Hrvoje Zorc, zorc@rudjer.irb.hr, Croatia

Jaroslav Vlček, vlcek@kfy.zcu.cz, Czech Republic

Antti Korhonen, Antii Korhonen@tkk.fi, Finland

Constantin VAHLAS, constantin.vahlas@ensiacet.fr, France

Peter Schaaf, peter.schaaf@tu-ilmenau.de, Germany, Vice-Chair

Dr Arutiun Ehiasarian, A.Ehiasarian@shu.ac.uk, UK

Miklós Menyhárd, menyhard@mfa.kfki.hu, Hungary

R.K. Bhandari, bhandari@vecc.gov.in, India

Yaron Paz, paz@tx.technion.ac.ilm, Israel

Paolo M. Ossi, paolo. ossi @polimi.it, Italy

Toyonobu Yoshida, <u>yoshida@plasma.t.u-tokyo.ac.jp</u>, Japan

Jeon Geon Han, hanjg@skku.edu, Korea

Victor Hugo Mendez Garcia, victor.mendez@uaslp.mx, Mexico

Saadat A. Siddiqi, saadat@khwarizmi.org, Pakistan

Dechun BA, dechunba@yahoo.com, China

Witold Precht, wprecht@interia.eu, Poland

Vasco Teixeira, vasco@fisica.uminho.pt, Portugal

G.L. Saxagansky, saxsag@niiefa.spb.su, Russia

Jan Jakabovic, jan.jakabovic@stuba.sk, Slovakia

Matjaz Godec, matjaz.godec@imt.si, Slovenia

J. Barriga, jbarriga@tekniker.es, Spain

Ulf Helmersson, ulfhe@ifm.liu.se, Sweden

Ivan G. Petrov, ivan petrov@avs.org, USA, Chair

1. During the triennium the Surface Engineering Division co-organized three workshops and one school as follows:

67th IUVSTA Workshop (Surface Engineering and Thin Film Division)

"High Temperature amorphous and nanostructured ceramic coatings: challenges and opportunities"

STFC Daresbury, UK

September 23 - 27, 2012

Web: http://www.cockcroft.ac.uk/events/IUVSTA 67/index.html

Final Report http://iuvsta.org/iuvsta2/assets/docs/pdf/Final Report IUVSTA67.pdf

SED Chair: Peter Schaaf

68th IUVSTA Workshop (Surface Engineering and Thin Film Division)

"Multifunctional Surface Engineering for Advanced Energy Applications"

City University of Hong, Hong Kong, PRC

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December 09 - 13, 2012

Web: http://www.cityu.edu.hk/cosdaf/MSEAEA2012/Index.html

SED Chair: Ivan Petrov

72nd IUVSTA Workshop (Surface Engineering Division, Thin Film Division, Plasma Science and Technology Division)

"Plasma-assisted vapour deposition of oxide based thin films and coatings"

Schloss Seggau, Austria

April 06 – 11, 2014

Web: http://iuvsta72.unileoben.ac.at

SED Chair: Christian Mitterer

11th IUVSTA School (Surface Engineering)

SLIMS-International School on Lasers in Material Science – Tailoring Film Structure and Properties

July 08 - 15, 2012

San Servolo Island, Venice, Italy

Final Report (pdf Format, 1.61 MB): School 11

SED Chairs: Peter Schaaf and Paolo Ossi

- 2. The Surface Engineering highlights review was presented by Professor Christian Mitterer at the Highlights seminar in Bratislava, Slovakia, September, 2012.
- 3. Surface Engineering program at IVC19 was prepared by a committee with the following members:

Ivan Petrov, USA (chair)

Roger de Gryse, Belgium (vice-chair)

Mariana Braic, Romania

Diederik Depla, Belgium

Arutiun Ehiasarian, United Kingdom

Jeon Geon Han, Korea

Ulf Helmersson, Sweden

Jan Jakabovic, Slovakia

Monika Jenko, Slovenia

Gàbor Langer, Hungary

Tibériu Minea, France

Peter Schaaf, Germany

Vasco Teixera, Portugal

The Surface Engineering program consists of the following session:

- SE 1 : Pulsed plasmas/HIPIMS in surface engineering, (Miatec Session), room 12. Mo2-6pm
- SE 2 : Nanostructured protective coatings, (ITFPC Session) room 12, Tu4-6pm,
- PST/SE/TF-1: Surface Engineering and Multifunctional Coatings, room 14, Tu4-6pm
- SE-TF1: Protective Coatings in Severe Environments, (ITFPC Session) room 10, Tu4-6pm

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• SE-TF2: Advanced Surface Treatments and Protective Coatings, (ITFPC Session) room 12, We8-12am

- SE/ASS-1 Tribology, adhesion, room 8, We8-12am
- SE-TF3: Protective Coatings, (ITFPC Session) room 12, We4-6pm
- SE/BI/TF/PST-1 Surface engineering for biomedical application, room 13, Th8-12am
- SE-TF4: Protective Coatings, (ITFPC Session) room 9, Th4-6pm
- SE/BI/TF/PST-2 Surface engineering for biomedical application, Room 13, Th4-6pm
- PST/SE/TF-1: Surface Engineering and Multifunctional Coatings, room 14, Th4-6pm
- SE/PST /TF/BI-3: Thin films and surfaces in biological applications, room 13, Fr8-12am
- TF/SE11 Reactive Sputter Deposition 2013 (RSD2013)/Reactive Processes
- 4. In April 2013 at the ICMCTF conference in San Diego the Surface Engineering Division representatives had a meeting and discussed future plans for the next triennium. It was decided to aim to organize three workshops on hot topics.

Jeon Han proposed to organize the SED workshop supported by IUVSTA in Korea.

The tentative agenda was discussed and agreed by all as follows;

Topics: Functional films and low temperature plasma processes on polymer foils

- nano structure films, bio functional films, TCO films, optical films etc.

Location: Suwon, South Korea (Natural Science Campus of Sungkyunkwan University)

- Suwon is the city of Samsung major companies and centered by many SME companies in 1 hr distance by drive

Hosting organization : CAPST (Excellency Center for Advanced Plasma Surface Technology) and Sungkyunkwan University

Period: 3 days at late September in 2014 / one day program in east mountain area for invited speakers

Financial support: IUVSTA, Korea Research Foundation, others (SKKU etc.)

- support for conference room, local accommodation, workshop banquet and some meals
- wave of workshop fee for all invited speakers

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# REPORT FOR THE ESTABLISHMENT OF A NEW IUVSTA DIVISION: BIOINTERFACES

Chair: Dr Anouk GALTAYRIES (Chimie ParisTech, SFV, France)

The surface of materials presenting biological and/or biochemical interfaces are of great interest for both academia and industry. Indeed, biomedical or diagnostic devices, bioimplants, design of materials for biological environments, but also biotechnology, personal care, food production, biodegradation, biocorrosion and anti-fouling properties are some of the emerging technologies and applications which need fundamental understanding and knowledge.

UHV-based surface analytical tools are used extensively for research, development and quality control of such biointerfaces, as powerful and reference tools. In addition to the use of the UHV-based techniques, even more challenging aspects in probing biointerfaces lay in *in situ* characterizations at the solid-liquid interface at in atmospheric conditions: existing analytical methods are then coupled to improved or dedicated new techniques, resulting in new approaches and methodologies. In that frame, the objectives are to determine what relationships exist between surface chemistry and biological responses.

The research which is displayed in this division would be highly interdisciplinary, involving collaborators from a wide variety of fields including regenerative medicine, neuroscience, developmental biology, pharmaceutics, materials processing, plasma physics and nanofabrication, metallurgy and corrosion.

As regards the impact of the Biointerfaces steering group that I was chairing since March 2011 (Namur ECM meeting), 2 important scientific facts in the triennium:

- 65<sup>th</sup> IUVSTA meeting in Peckforton Castle (UK), in May 2012: co-organised with the Applied Surface Science Division (Chair **A. Shard (IUVSTA/ASS member)**, Vice-Chairs: S. Ray, W. Unger, **A. Galtayries (IUVSTA/BIO member)**, 43 participants (including **F. Höök (IUVSTA/BIO Member)** from 12 countries, with representatives from academia, national laboratories and industry.
- IVC-19 and associated conferences, Paris (F), in Septembre 2013: one symposium for Biointerfaces, chaired by Pr. **Michael Grunze** (AVS), Editor in Chief of the Biointerphases Journal.
  - 34 abstracts (27 oral communication + 7 posters), 1 keynote Pr M. Textor (ETH Zürich), 3 or 4 invited speakers (additional contacts are taken as a special effort from the organisers for this symposium), 4 sessions entitled The future of biosensors, Quantifying and predicting protein/surface interactions, *In situ* and *in vivo* studies of biointerfaces, Biointerfaces probed by Synchrotron Light and Neutron beams.
  - 4 co-chaired sessions with Thin Films (+17 oral comm.), Applied Surface Science (+6 oral comm.), Plasma Science & Technology (+18 oral. comm.), Nanoscience & Technology (+8 oral comm.), for an equivalent of 4-day program dealing with Biointerfaces.

To improve the visibility of this multidisciplinary division, I would suggest to discuss the redesign the bio sub-topics in the some of our divisions (*i.e.* **Pietro Favia**, member of the IUVSTA/BIO group is an invited speaker in the ASS Symposium), as well as the nomination of a greater number of members, that I could recommend to the National Vacuum Societies.

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# President's Inaugural Statement

I am deeply honored to be allowed to serve as President of the International Union for Vacuum Science Technique and Application (IUVSTA) for the triennium 2013-2016. Let me thank all of you for entrusting me with this great responsibility.

My first contact with the IUVSTA organization, was, as Councilor for Italy, at the ECM 83 Meeting in Saillon les Bains (CH), February 20-22,1999.

In all these years I saw enthusiasm, cooperation, a continuous flourishing of initiatives and major advances in the positive strength of the Union. Today I want to assure you that I will do my best to give continuity to this process and to bring IUVSTA to its full potential.

"IUVSTA is a Union of national member societies whose role is to stimulate international collaboration in the fields of vacuum science, techniques and applications and related multi-disciplinary topics including solid-vacuum and other interfaces.

Examples of activities reflecting these objectives range:

**From** the creation of relevant international meetings, conferences and workshops **to** the coordination of existing international meetings within relevant scientific areas;

**From** providing educational opportunities **to** being able to transfer expertise from the international community into a local community or into scientifically less-developed countries;

**From** the administration and organization of international awards and prizes in the scientific and technical areas covered by the Union **to** making it possible for national societies to influence decisions on any of IUVSTA matters which might impinge on them directly or indirectly;

**From** providing an opportunity for national societies to discuss common problems of organization and infrastructure with other societies with common problems through both full executive council meetings and through the co-ordination of regional forums **to** extending the representation of the community covered by IUVSTA at an international level, for example by being an active participant in the International Council of Scientific Unions (ICSU), by serving on appropriate committees such as ISO, UNESCO and non-governmental organizations, and to act as a conduit for interaction with other national and international organizations, such as ICTP;

**From** organizing, in collaboration with the major international and regional conferences, exhibitions of manufacturers goods and related services for the benefit of both users and providers with the scientific and technical interests covered by the Union **to** assisting and advising in the creation of new national and regional societies and to encourage them, at the appropriate time, to apply to become members of IUVSTA"

I intend to work and operate to realize *this IUVSTA mission* using the experience I have acquired in these fifteen years as Councilor for Italy (1998-2004), Vice-chair of the Applied Surface Science Division (2001-2004), Alternate Councilor (2004-2007), Chair of the Congress Planning Committee (2006-2007), Chair of the Biomaterials Interface Steering Committee (2008-2010), Technical and Scientific Director (2007-2010) and, as President Elect, Chair of the Long Range Planning Committee.

I will focus my efforts on different aspects of scientific and organizing issues. In particular I will:

1. Give visibility and structure to new and emerging scientific topics and communities. Noteworthy among them are those at the edge of a division or several divisions e.g. biotech, energy, bio/nanophotonics, etc, or those dealing with large infrastructures such as synchrotrons, FEL, Fusion, NSS, etc. The key will be to properly select the tools (working group, interdivisional group or new division) and the rules to give the opportunity for these initiatives to grow within our Union. We have just ended the triennium with two important results: the establishment of the ninth IUVSTA Division, The Biointerfaces Division, and the set-up by the ECM of a Working Group on "Future Directions on Science and

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- Technology". I will closely work with the LRPC Chair and the Scientific and Technical Director and support them in enlarging IUVSTA representation in new scientific fields.
- 2. Continue in the direction of focusing needs and offering solutions to Non Member and Lesser Developed Countries through strong action in establishing contacts and organizing events (workshops, schools, TTCs, etc.). I will carefully consider, together with the Emerging Societies Committee chair, new forms of interaction and agreement to facilitate the relationship with non-member or lesser developed countries. The path we began and the experience we will gain in the International Vacuum Institute initiative with the Pakistan Vacuum Society can be a good reference point!
- 3. Improve our scientific and educational offering by investing more money and encouraging better quality. Workshops and schools on one hand and training courses on the other are of vital importance for every national vacuum society! The Scientific and Technical Directorate and the Education Committee will be the right bodies in which discuss, exchange experiences and promote good scientific, technical and education events and meetings.
- 4. Dedicate still more effort to our website, finally transforming it in a portal with proper tools for enlarging our visibility and relationships (connection to social networks such as Facebook, Twitter, LinkedIn; opened to multimedia standard web 2, etc.). In this last triennium a great improvement has already been made in this direction. I will strongly support the Publication Committee and its chair to complete this path.
- 5. Promote actions for awards and scholarship policy. The IUVSTA Prizes, both in Science and in Technology, are well recognized awards, milestones at every International Vacuum Conference. The Welch Scholarship is a tradition in promoting education by the Union and the World Transfer Program is a new promising education initiative launched in this last triennium. To maintain them and possibly to establish new others we need to find new donors. I will work in close cooperation with the ASC and its chair to fulfill this commitment.

All these "intentions" and the consequent actions have to face financial considerations. The difficulties of the world economy and the stock market limit our trajectory to a conservative budget. Nevertheless the Finance Committee and the Treasurer will try to give sufficient flexibility to the annual budget to satisfy possible new opportunities.

Let me take the opportunity to thank Prof. Jean Jacques Pireaux, my predecessor, for his dedication to the IUSTA aim and for his untiring activity for making IUVSTA more interactive and effective. Thanks to all the officers, councilors, divisions and committee chairs. Thanks to Ron Reid who today, after nine years, pass the testimony of Secretary General to Christoph Eisenmenger-Sittner. I have very much benefited from his experience! All I know about IUVSTA rules, procedures and organization, I learned from him.

I would like also to express my deep thankfulness to Bill Rogers, IUVSTA Past President. He asked me to substitute for Massimo Sancrotti as chair of the Congress Planning Committee when Massimo had to step back because of his illness and he appointed me Scientific and Technical Director. Thanks for offering to me all these fascinating opportunities.

And now we have to focus attention on the work for the new triennium. As a music conductor needs the coordinated contribution of each performer, I am kindly asking all of you to actively join me in this challenging adventure. On my side I can promise that IUVSTA will be, for the next three years, my top priority!

Mariano Anderle Paris, France September 2013

#### A short introduction to IUVSTA

This short introduction aims to give a brief survey of the IUVSTA background, particularly for those delegates who have little knowledge of the functioning mechanisms of the Union.

**IUVSTA** (International Union for Vacuum Science, Technique and Applications) is a Union of national member vacuum societies whose role is to stimulate international collaboration in the fields of vacuum science, techniques and applications and related multi-disciplinary topics including solid-vacuum and other interfaces.

General operational decisions and the associated discussions take place at meetings of the **Executive Council**, typically every 6 months, The Executive Council comprises the Officers (President, Past President, President Elect, Scientific Secretary, Scientific and Technical Director, Treasurer and Secretary General) and one representative of each member society, either the Councillor or the Alternative Councillor.

Associated with the Executive Council meeting there are meetings of several **Committees** where much of the debate takes place and a meeting of the **Scientific and Technical Directorate** (STD).

The Scientific and Technical Directorate has it own Director and Secretary, provides a forum of discussion for the general scientific and technical activities of the Union and is responsible for the programme of IUVSTA Scientific Workshop and Schools, selecting topics and venues from the proposals made by the Divisions. STD also makes decisions on endorsement and sponsorship of Conferences and supervises the scientific organization of the IUVSTA Vacuum Congress. The STD comprises eight Divisions: Applied Surface Science, Electronic Materials & Processing, Nanometer Structures, Plasma Science & Technique, Surface Engineering, Surface Science, Thin Film, Vacuum Science and Technology. Each Division has a representative for all the national member societies. A Steering Committee on BioInterfaces has operated during the last Triennium.

The Awards and Scholarships Committee is responsible for overseeing the award of the M.W. Welch International Scholarship which was established in 1965 to support younger scientists working abroad in vacuum science and technology. The Committee selects also the conferences at which Elsevier Student Awards will be made and is responsible for the organisation and for the selection, through and ad hoc panel, of the winners of the triennial IUVSTA Prize for Science and of the triennial IUVSTA Prize for Technology. A new development is the World Transfer Program to encourage young researchers to work in another laboratory for short periods.

The **Congress Planning Committee** oversees the arrangements for the organization of the forthcoming triennial International Vacuum Congress and at the same time seeks and evaluates bids for the future IVC making recommendation to the Executive Council meeting.

The **Education Committee** oversees the activities of education. This includes visual aids programme, short courses associated with scientific meetings sponsored by IUVSTA and the Technical Training Course Programme.

The **Emerging Societies Committee** is responsible for liaising with the scientific community in countries where IUVSTA is not represented and encouraging there interactions and activities which might lead to the creation of a society which could apply for membership of the Union.

The **Finance Committee** is chaired by the Treasurer and monitors the investments of the financial resources of the IUVSTA and prepares the triennial budget.

The Long-Range Planning Committee is chaired by the President Elect and provides a forum of wide –ranging discussions in structure and news activities for IUVSTA,

The **Publications Committee** oversees IUVSTA publications, and the web page <a href="http://www.iuvsta.org">http://www.iuvsta.org</a>

The **Statutes Committee** oversees the Statutes, By-Laws and working practices of the Union and ensures that they are modified to take account of changing situations.

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