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Koninklijke Vlaamse Academie
van België
voor Wetenschappen en Kunsten

**Belgian National
Scientific
Committees**

Belgian Federal Science
Policy Office

NATIONAL SCIENTIFIC COMMITTEES

ANNUAL REPORTS 2011

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&INTRODUCTION

The National Scientific Committees' missions are the promotion and coordination of various scientific disciplines in Belgium, mainly seen in an international context. The creation of a national committee is subject to the existence of an international scientific union affiliated to ICSU or a scientific body of ICSU (scientific committees, special committees, etc.) concerning the same scientific discipline.

The National Scientific Committees work under the patronage of the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique and the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, which are gathered in RASAB.

The committees are subject to regulations adopted by the Belgian Academies of Sciences and Arts. (<http://bit.ly/Jx9RFt>).

The list of the members of the Belgian Scientific Committees can be found on the RASAB's website: www.rasab.be.

NATIONAL COMMITTEE FOR ANTARCTIC RESEARCH

1. Introduction, mission, goals

According to its Terms of Reference, the goals of BNCAR are defined as follows:

[a] General Terms of Reference:

- Forum to bring members together to share information, identify common problems and to seek collective vision and endeavours for Belgian Antarctic (and Arctic) research.
- Strategy to identify scientific and operational issues of strategic importance with respect to Belgian Antarctic (and Arctic) research and activities.
- Voice to express a collective vision for the future Belgian Antarctic (and Arctic) research and activities in relation to developments in Belgium, Europe and the World.

[b] Specific National Terms of Reference:

- Participate in the Belgian coordination bodies concerning Antarctic research.
- Establish by means of invited speakers or surveys an overview (State of the Art) of Belgian Antarctic (and Arctic) research and activities.
- Organize - whenever appropriate – manifestations, symposia, etc. – to promote Antarctic (and Arctic) research.
- Voice – whenever appropriate or necessary – our concerns about the state of the environment in Antarctica (and Arctic) within the framework of sustainable development.
- Promote Polar science in general within the Belgian context.

[c] Specific International Terms of Reference:

- BNCAR is the official representing body of Belgium within SCAR (Scientific Committee on Antarctic Research, ICSU). This implies that BNCAR members can participate in SCAR meetings, contribute to establish the Belgian annual report to SCAR and respond to particular information requests from SCAR.
- Give advice or respond on matters raised within international bodies such as the ATCM (Antarctic Treaty Consultative Meeting) and its CEP (Committee for Environmental Protection), CCAMLR (Convention for the Conservation of Antarctic Marine Resources), CCAS (Convention for the Conservation of Antarctic Seals), EPB (European Polar Board).
- Promote (Belgian) Polar science at an international level.

2. Meetings of the Committee

[a] Plenary meeting of 2 March 2011

The new members were welcomed.

The Committee got more information about the working of the Committee on Environmental Protection of the Antarctic Treaty and how it could contribute to the debate by giving expert advices. The members of the Committee will be contacted when needed. The BNCAR chairman will be invited to the Belgian preparatory meeting before each CEP.

New rules of procedures were discussed. Later on, they were voted by an Internet poll and accepted. However, it was questioned whether a higher attendance rate would be beneficial for a better functioning of the BNCAR. The rules of procedure as well as the updated membership list can be found on the website (<http://dev.ulb.ac.be/glaciol/BNCAR/>).

A letter has been written by the chair to ask for the participation of a representative from BNCAR at the Polar Secretariat meetings. Prof. F. Pattyn was invited to one of the meetings of the Polar Secretariat as an external observer. However, the BNCAR did not receive an official answer to the demand of a permanent representation.

The participation of Belgian scientists to the SCAR strategic plan was discussed.

The fate of the ship BELGICA was also discussed.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] Press and communication activities

A press conference was organized by BELSPO upon the return of the Belgian research teams after the Antarctic field season 2010-11. A large press coverage in Belgian media was given after this event (both TV and written press).

A new and updated website of the BNCAR was established: <http://dev.ulb.ac.be/glaciol/BNCAR/>. It overrules the previous website that was completely outdated.

Dr. Annick Wilmotte and Prof. André Berger have organized a special session of Collège Belgique (Royal Academy) on Antarctica, 'L'Antarctique dans tous ses états', in September- October 2011.

Eleven Belgian Antarctic scientists, often members of BNCAR, presented their research to a wide audience. (<http://bit.ly/IRSbCM>). The PowerPoint presentations are available on the website.

[b] Belgian SCAR representation and secretariat

As usual, BNCAR has pursued its role of SCAR representative in Belgium. The National Committee prepared the annual report to SCAR covering all Antarctic-related research done in Belgium. The report is distributed to the Antarctic researchers of SCAR country members through their SCAR National Committees.

BNCAR also forwarded to Belgian researchers all useful information from SCAR.

[c] Documentation and information

BNCAR has continued to represent the Belgian Antarctic research by answering to information requests at Belgian or at international level. The distribution of books related to Antarctica and Belgium has been pursued.

On the other hand, the National Committee has continued to manage its Antarctic documentation as well as the archives of the Belgica expedition held at the Royal Belgian Institute of Natural Sciences and part of the archives of the Belgian and Belgian-Dutch Antarctic Expeditions.

5. Future perspectives

Participation to the XXXII statutory meeting of the Scientific Committee on Antarctic Research (SCAR) in Portland (13 - 25 July 2012), to the meetings of the SCAR Standing Scientific Groups and to the SCAR Open Science Conference “Antarctic Science and Policy Advice in a Changing World”. Prof. F. Pattyn will attend as Belgian delegate and representative of the SSC Geosciences. He will also co-preside the ISMASS workshop prior to the SCAR meeting. Other delegates will be designated during the next meeting in 2012.

NATIONAL COMMITTEE FOR ASTRONOMY

1. Introduction, mission, goals

The formal basic goal of the committee is to coordinate the participation of Belgian astronomers in the activities of the International Astronomical Union (IAU), and in the triennial IAU General Assembly in particular. The committee also serves a role in the dissemination within the Belgian community of developments within other international organisations to which our country participates, such as ESA, ESO, and the journal *Astronomy and Astrophysics*. Finally, the meetings also offer opportunities to reflect together on matters affecting astronomical activities in Belgium.

2. Meetings of the Committee

The Committee gathered three times in 2011: on January 19, February 28 and October 18. The first meeting took place at AMOS in Liège, the other meetings at the Palace of the Royal Academies for Science and the Arts of Belgium in Brussels.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] Astronomy and Astrophysics (A & A)

C. Sterken is the Belgian delegate in the A&A editorial board and represents the BNCA. He reported that the Belgian annual contribution stays rather stable at 7500 euro. The editor-in-chief, C. Bertout, will retire in January 2012 and will become managing editor for one year.

[b] Belgian National ESO Committee (BNEC) matters

J. Surdej, the president of BNEC, presented summaries of two BNEC meetings preceding the BNCA meetings. Details and comments are regularly added by C. Waelkens, Belgian representative at the ESO Council, and S. Pireaux, BELSPO representative in charge of ESO matters. A particular cause of concern is the critical financial situation of the E-ELT. Since only one third of the estimated cost of 1.08 billion euro is available, the annual contributions of the ESO member states would need to increase, although this consequence could be mitigated by contributions from additional countries like Brazil, Australia, Canada, and Poland.

[c] ESA matters

W. Verschueren, in charge of ESA matters at BELSPO, reported about ESA matters (such as budget, missions and their evolution, delays or problems, the Belgian participations, the main political issues...) at each BNCA meeting.

[d] ARIES telescopes

The 3.6 meter diameter telescope DOT (Devasthal Optical Telescope) designed and built by AMOS is an Indian project of about 20 million Euros. The telescope is located at the Uttar Pradesh State Observatory (UPSO) in Devasthal (50 kilometres east of Nainital) and has been financed mainly by the Aryabhata Research Institute of Observational Sciences (ARIES), an autonomous research institute under the Department of Science and Technology (DST) of the Indian Government. Belgium contributes financial and scientific support and has 7% of guaranteed telescope time, for which a Belgian time allocation committee will be set up.

The International 4 meter Liquid Mirror Telescope (ILMT) will also be installed at Devasthal. It is presently on its way to India. First light is scheduled for the end of 2012.

5. Future perspectives

The BNCA decided to support thirteen candidates for individual IAU membership: O. Absil, M. De Becker, G. Gentile, M. Gillon, C. Jacobs, A. Libert, A. Lobel, J. Montalbán, T. Morel, Y. Nazé, B. Noyelles, S. Parenti, and T. Van Doorselaere. The IAU Executive Committee will take the decision for final admission to the IAU in August 2012 at the IAU XXVII General Assembly.

NATIONAL COMMITTEE BELQUA (QUATERNARY RESEARCH)

1. Introduction, missions, goals

The purpose of BELQUA is to encourage the Belgian research on various aspects of the Quaternary period, either research conducted in Belgium or by Belgian scientists abroad. It aims to encourage young researchers and to promote scientific communication. All fields related to Quaternary research are welcome, e.g. geology, climate, archaeology, etc.

2. Meetings of the Committee

Dates: 23/03/2011 and 2/12/2010, both in Brussels.

Main conclusions:

[a] Evaluation of Workshop 2011

[b] Discussion concerning:

- The forthcoming activities in 2012 – workshop and fieldtrip planning;
- The annual report;
- The INQUA Council meeting - G. Verstraeten and C. Baeteman (as deputy) have represented the national committee. André Berger was nominated to be Honorary Member. BELQUA nominated F. Antonioli (Italy) for INQUA vice-presidency.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] BELQUA annual workshop

Description: The 2011 BELQUA Workshop of 23 March 2011 was a one-day workshop in Brussels with 13 oral presentations. The workshop was convened by P. Degryse and G. Verstraeten (KULeuven). The keynote speaker was Dr. S. Blockley (Royal Holloway University of London, UK). He gave a talk about *“Quaternary Tephra Chronology”*. His lecture has been programmed after the lunch break as an attraction point to stimulate the participants to remain present all day. The remaining oral presentations covered a wide range of topics and disciplines. Many of this year’s

presenters are new faces, and predominantly younger scientists, confirming last year's assessment that there is a dynamic and larger than expected community working in Quaternary sciences in Belgium.

Goal: The workshop is an opportunity to meet colleagues working in Quaternary Sciences in Belgium and Belgians working in Quaternary Sciences abroad. It is also an opportunity for students to present their PhD research.

Attendance: The workshop was very well attended, with 37 participants. This is significantly more than last year.

[b] INQUA Congress

Several members of BELQUA have convened a session.

For instance:

- G. Verstraeten (convener): *Quantifying and modelling human and climatic impacts on hillslope and fluvial sediment dynamics during the Holocen*
- V. Heyvaert (co-convenor) *Geoarchaeology: Palaeoenvironments and Human Interactions*
- M.F. Loutre (co-convenor) *Climate changes over the last millennium.*

André Berger has been elected Honorary Member.

[c] Annual BELQUA fieldtrip

Description: 1-day fieldtrip in the Dijle catchment, guided by G. Verstraeten (KULeuven). The topic of the field trip was "Human and climate impacts on the hillslope and fluvial sediment dynamics of the Dijle since the late glacial period".

Goal: Discussion in the field of ongoing research. Each excursion point was focused on one particular topic of the Quaternary research

Attendance: 15 participants.

5. Future perspectives

[a] BELQUA annual workshop:

ULg, with N. Fagel and A. Hubert-Ferrari as convenors, would take care of the organisation of the 2012 BELQUA Workshop. Prof. B. Van Geel is invited as a keynote speaker. The lecture will be focused on climate forcing.

[b] BELQUA annual Fieldtrip:

Not determined yet.

[c] EGU 2012:

A session *about paleoclimate in lakes* is proposed for the climate division at the next European Geosciences Union (EGU) General Assembly in Vienna (22-27 April 2012) by Nathalie Fagel and Marie-France Loutre.

[d] Meeting of the INQUA Executive Committee in Brussels in 2012

NATIONAL COMMITTEE FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY

1. Introduction, mission, goals

The goal of the National Committee is to promote research in the field of Biochemistry and Molecular Biology, by organizing meetings and inviting outstanding internationally renowned scientists. Because of the increasingly interdisciplinary nature of the biological sciences, often symposia are organized together with other societies and National Committees.

Because of the common goals, the members of the National Committee on Biochemistry and Molecular Biology are also member of the board of the Belgian Society of Biochemistry and Molecular Biology and as such are involved in the preparation and organization of all the activities of this Society.

2. Meetings of the committee

The National Committee meets together with the board of the Belgian Society for Biochemistry and Molecular Biology. In 2011 a board meeting took place on the 30th of January at the ICP in Woluwe (Brussels), organized by Prof. Fred Opperdoes. In this board meeting the planning for the upcoming year was decided. Further organization was done by email. The actual organization of symposia is left to the local organizers.

3. General Assembly of the Scientific Union

No assembly of the Scientific Union in 2011.

4. Other activities

The Society/National Committee has organized in 2011 the following two scientific meetings:

[a] The 204th meeting “Redox Mechanisms” was organized at the Free University of Brussels on the 6th of May 2011 by Prof. Joris Messens. More than 80 participants attended the meeting.

[b] The 205th meeting was organized at the Royal Academies in Brussels together with the National Committee of Biochemistry and Molecular Biology on the 12th of December 2011. This

symposium entitled: "Synthetic Biology, the Future of (Bio)chemistry?" was attended by well over 50 scientists.

[c] Prof Stalmans (KUL) serves as publications officer of the International Union of Biochemistry and Molecular Biology, whereas Prof. Jason Perret is member of the education committee of FEBS (Federation of European Biochemical Societies).

[d] Most members of the National committee have participated in many international scientific events. However it would be impossible to provide an extensive list of all these activities.

5. Future perspectives

[a] The Biochemical Society plans a first meeting on the 25th of May organized by Prof. Christophe Ampe (VIB-UGent) on the topic of "Muscle biochemistry".

[b] Prof. Pierre Cornelis (VUB) will organize an international meeting "Biometals 2012" in Brussels from 15-19 July 2012. The society supports the organization of this meeting. A website has already been created (see: www.biometals2012.be).

[c] Prof. Thierry Arnould (FUNDP, Namur) organizes a symposium entitled "Metabolomics...to do what?" in Namur, on 9 November 2012.

NATIONAL COMMITTEE FOR BIOLOGICAL SCIENCES

1. Introduction, mission, goals

The national Committee of Biological Sciences is a collaboration between the International Union of Biological Sciences (IUBS) and Belgian scientists active on the field of biological sciences.

2. Meetings of the Committee

One meeting of the committee took place on 23/03/2011.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011

4. Other activities

There have been no activities organised by the Committee of Biological Sciences in 2011.

5. Future perspectives

In 2012, the committee would like to concretise one activity regarding the biodiversity in Belgium. This activity will concentrate on the occurrence of certain lichen species in the Belgium and their relationship with air quality. For this activity, several associations involved in nature conservation and nature study will be contacted.

NATIONAL COMMITTEE FOR BIOMEDICAL ENGINEERING

1. Introduction, missions, goals

Biomedical Engineering is the multidisciplinary field concerning engineering research, developments and applications in (bio)medicine.

The Belgian National Committee on Biomedical Engineering aims to bring together the Belgian academics, students, researchers and professionals, active in the broad field of biomedical engineering.

The aims of the National Committee are:

- Stimulating scientific and educational interactions
- Linking with international organizations and societies
- Representation of the Belgian academic point of view
- Setting up a forum for interested students and professionals.

2. Meetings of the committee

Dates: The Committee met on: March 16th, July 12th, October 13th, and December 2nd.

Place: the Contact Forum in the Academies.

Main conclusions:

- Continuing efforts for a yearly Contact Forum
- Involving young scientists and professionals, alumni of our master programs
- Streamlining communications (updated informative website)
- Contacts with industry: mostly via the association UNAMEC
- Continuing liaison efforts with European, world-wide associations
- Need for continuing efforts in promoting research and development and an awareness of the community

3. General Assembly of the Scientific Union

The International Union IUPESM will hold its General Assembly in May 2012 during the World Congress on Biomedical Engineering and Medical Physics in Beijing (May 25th – June 2nd, 2012).

The National Committee has nominated Marc Nyssen as officer to the Board of the International Federation IFMBE for the elections that will take place in May 2012 in Beijing, during the General Assembly.

4. Other activities

[a] Belgian Day on Biomedical Engineering (December 2nd 2011)

Description: Contact Forum with 5 invited speakers, a poster session presenting new research results and prizes for the 3 best posters by young researchers; collaboration with the IEEE Benelux Chapter and with European projects concerning Biomedical Education.

Goals:

- Bring Belgian researchers in contact with internationally recognized speakers (this year's theme: Bridging the gap between Engineering and Medicine) and allow them to present their work in a short presentation and poster (Belgian Day)
- Evaluate the future activities of EAMBES.

Attendance: 270 persons attended the "Contact Forum": 10th National Day on Biomedical Engineering on December 2nd 2011.

[b] Collaboration with UNAMEC:

Thanks to the collaboration with UNAMEC, an evaluation of the complete biomedical engineering sectorial presence: in education, in research, and in the professional context has been realized in 2011.

[c] Liaison with worldwide societies/activities:

- Contacts between the National Committee, the World Federation IFMBE, the Union (IUPESM) and ICSU via Marc Nyssen.
- Contacts between the National Committee and EAMBES (European level umbrella organisation) via Jos Vander Sloten.
- Contacts between the National Committee and ESEM (the European scientific society) via Pascal Verdonck.
- Contact between the National Committee and UNAMEC, the professional umbrella association, with industry members of the biomedical sector.

5. Future perspectives

The committee aims at expanding the involvement of students and of captains of industry in the Committee's future activities.

As there are now 5 “master in biomedical engineering” programs (UGent/VUB, KUL, ULB, UCL, Ulg) the Committee wants to become the meeting place for communication in between these programs (also for Phd's linked to the masters), in order to strive to a full recognition of the title “Master in biomedical engineering”.

Keeping in contact with the alumni.

A “Youngsters Board” was set up successfully in 2010 and was fully operational in 2011.

Contacts with the professional field, amongst others through UNAMEC will be consolidated.

The preparations for the next Contactforum have already started.

6. Clarification of abbreviations

- IFMBE: International Federation for Biomedical Engineering: the “World Federation”
- IUPESM “International Union for Physics and Engineering Sciences in Medicine”, the UNION of which the IFMBE is 1 of the 2 components.
- EAMBES: European umbrella association, regrouping societies and teaching/research departments
- ESEM: European Society for Biomedical Engineering
- ICSU: International council of scientific unions (links with national Academies)

NATIONAL COMMITTEE FOR BIOPHYSICS

1. Introduction, mission, goals

The goal of the National Committee is to promote research in the field of Biophysics, by organizing meetings and inviting outstanding internationally renowned scientists. Because of the increasingly interdisciplinary nature of the biological sciences, often symposia are organized together with other societies and National Committees. Because of the common goals, the members of the National Committee on Biophysics are also member of the board of the Belgian Biophysical Society and as such are involved in the preparation and organization of all the activities of this Society.

2. Meetings of the Committee

[a] May 31, 2011. Second “Young Scientist meeting”

(In collaboration with the Belgian Biophysical Society and the FWO-contactgroup on X-ray crystallography, ‘tPand, Gent)

The Young Scientist meeting aims at providing a platform for young PhD students and Postdocs to present their work to colleagues in the field. Indeed, this group of scientists rarely gets the opportunity to talk at international meetings. The meeting attracted approximately 40 attendees. 20 young scientists submitted a poster abstract, from which 8 scientists from different institutes were selected by the local organizers (Profs Devreese and Savvides) to present their work orally. The talks considered several biophysical methods such as X-ray crystallography, NMR, fluorescence microscopy and molecular modelling to reveal information on protein structure and interactions with small ligands, other proteins or on intracellular trafficking. The meeting was opened by a plenary lecture by Dr E. Mancini from the University of Oxford entitled: “Towards the structural dissection of a haematopoietic transcription factor complex”

[b] November 4, 2011. One day meeting on the use of “Mass spectrometry in structural Biology

(in collaboration with the Belgian Biophysical Society)

The meeting organized at Antwerp University (Prof. Frank Sobott, UA and Prof. Bart Devreese, Ugent were the local organizers) aimed to inform the biophysical community on the possibilities of the recent emerging mass spectrometric tools to study large protein complexes. The meeting was introduced by Prof Alain Van Dorsselaer (University of Strasbourg) who provided a historical

review on the use of electrospray ionization to study non-covalent interactions between biological macromolecules and ligands (both small molecules and macromolecules). Prof. Alison Ashcroft (univ. Of Leeds presented the use of ion mobility mass spectrometry to study amyloid aggregation. Dr. Valerie Gabelica (Ulg) showed that this technology, so far mainly used for protein interactions is also amenable to study nucleic acids and their self-assembly. Prof Sarah Cianferinin (Strasbourg) provided some nice examples on the study of protein complexes and Prof. Justin Benesch (Oxford) closed the lecture series with a talk on the use of MS to study polydisperse proteins that are traditionally not accessible to structural biology tools like X-ray crystallography. The meeting was closed with round table discussions to allow the audience to ask further questions on these rather new technologies. This discussion addressed clearly the pitfalls, basically dealing with sample preparation. The discussion sessions were highly appreciated, and recently, Prof Van Dorsselaer suggested making this meeting a yearly international event.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2010.

4. Other activities

[a] September 2, 2011: Ninth one-day symposium on *“Protein Folding and Stability”*,

(In collaboration with the Belgian Biophysical Society) Univ. De Liège.

5. Future perspectives

[a] May 30th and 31st and 1st of June: Biophysics school: *Bioimaging* at the KULeuven, Celestijnenlaan 200C, audit D.

[b] 10th one-day symposium on *“Protein Folding and Stability”*, end of September 2012, University of Liège. (Program under construction)

[c] A Contactforum at the Academy, Brussels, is being planned in December 2012 with the topic: *“Molecular crowding effects: from catalysis to cellular regulation”*. (Program under construction).

NATIONAL COMMITTEE FOR CHEMISTRY

1. Introduction, mission, goals

- Federate the messages of chemistry (Universities, Technical Colleges, Essenscia, CEFIC, SRC, KVCV, JSC...).
- Stimulate the public and improve the image of chemistry in Belgium in all the aspects.
- Make the bridgehead on IUPAC in Belgium (input and output).
- Make the promotion of chemistry and sciences to the young generations at the early age, high schools.

2. Meetings of the committee

In 2011 the meetings of the National Committee and sub committees were essentially focused on the preparation of the National and International activities dedicated to the International Year of Chemistry and more particularly to the Organization and budgeting of IUPAC Day and to the Closing Event in Brussels. (7 Regular Meetings and “extraordinary” meetings at the RASAB (Jan, 20th, Feb 24th, March, 30th, May 13th, June 10th, June 28th, Sept 14th).

- Debriefing of the Opening event in Paris at the request of the IUPAC Presidency: May 10.
- 7 Meetings with sponsors and “Event company”: preparation for IYC closing organisation, budgets, planning (Jan 31st, Feb 7th, March 23rd, June 21st, Sept, 5th, Oct, 27th, and 31st as Chairman of the Organizing Committee P.Baekelmans)
- As Project Manager and as Committee President in charge of the preparation of the debate of the “Young Leaders “ at the Closing Event. Introduction and background of IYCYL project “How chemistry will contribute to the resolve the world issues in 2050
- 2 days in Feb in Brussels, (Project Basis), options /structures/ external UN adviser in Geneva 3 days in May. In September, 3 days in Brussels to finalize the project organization. Rehearsals and fine tuning 5 days in November.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

- Opening Event of the International Year of Chemistry in Belgium in collaboration with Essenscia: Presentation of the National Committee Chemistry and Introduction of the IUPAC (with Press Interviews) 200 guests.
- Official Release of the BePost Stamp dedicated to IYC 2011 and 100yr celebration of The Solvay Councils
- Attendance of 5 members of the Committee at the Opening Ceremony of the International Year of Chemistry in Paris at the UNESCO Headquarters. (27th and 28th of January 2011). An International Event (750 attendants) launching the global activities in Chemistry in 2011)
- Kekulé Jeugde Namiddag organized by KVCV and Committee support (Feb, 8th)
- Creativiteit Marathon/Marathon de la Créativité: organized simultaneously in Brussels and Vilvoorde addressing the Students of high schools (March 2nd/3rd) organized by Essenscia
- Participation at the “Youth Week” in Flanders and in Brussels organized by Essenscia (Feb 28- March 4) Het grootste labo van Vlaanderen and spectacular show of Prof. Shakhshiri (also in Gent, Brussels, Frameries)
- Printemps des Sciences organized by University of Brussels, Liège, UCL, Mons and Namur and contribution of Memoscience (March 28th to April 3rd)
- Participation of Committee members (3) as representatives of Belgium at the General Assembly of the IUPAC at San Juan /Puerto Rico (July 30th –August 7th). Election of new officers of the IUPAC (secretary, and vice President).
- IUPAC Day on September 14 organized by the National Committee Chemistry in Brussels (RASAB) with the financial support of Contact Fora. Successful and exciting programme (120 attendants)
- Lecture open to Public: in Brussels May 22nd “De Marie Curie à l’Avion Solaire, la chimie, une science et une industrie au service des problèmes de notre temps » (Paul Baekelmans/PB)
- Same lecture to open Public in Virton: on November 18th, 2011 (PB)
- Lecture to the Belgian Chamber of Commerce: in Warsaw Poland “From Marie Curie to Solar Impulse: chemistry, a science and an industry serving and contributing to the resolution of global problems” on November 17th, 2011. (PB)
- Participation at the exhibition organized by “Les Jeunesses Scientifiques de Belgique” with dedication for IYC 2011 April 29/30th. Committee as jury members.
- Haute Ecole Lucia de Brouckère: November 9th Journée des jeunes.

- Haute Ecole Lucia de Brouckère and in collaboration with SRC Journée Scientifique de la Société Royale de Chimie October, 13th
- KVCV Antwerp November 15 Kekulé XIV “Chemistry is a part of your life”
- Inauguration of the Experimentarium in ULB (Nov 17) (Michel Herman)
- Closing Event of the International Year of Chemistry. Nov 29 and Dec 1st. The Square. International Event in presence of Prince Philippe with the sponsorship and participation of major Chemical, Lifesciences Industries and CEFIC. 1020 attendants from the academies, political, officials and industry. A very successful event for Chemistry for Belgium.

Many other events were organized locally in the schools, institutes and industries, which are not mentioned here. They contributed to the success of IYC and the promotion of chemistry and also articles, interviews etc. with the participation of our committee members or organization.

Main Conclusions of the Actions of the Committee:

[a] The opportunity to have the support of the UNESCO and the UN with the IUPAC to organize an International Year dedicated to chemistry is a once in a lifetime worldwide event. IYC 2011 is a success with participation of 170 countries and 1400 activities recorded on the IUPAC website.

[b] As the “ Ambassadors” of the IUPAC the “Committee Members have contributed to the success in Belgium which was even beyond the expectations. All the “stakeholders” in chemistry have dedicated time, efforts, enthusiasm and money to make it happen and to create a momentum in the public, schools, industries.

Regarding specific networks, each member of the Committee and the organization they belong to contributed to give a positive message of chemistry. This report is an opportunity to thank everyone for his or her efforts, time and dedication.

More particularly the organization of the IUPAC Day would not have been possible without the support of RASAB, (Mr. Hasquin, L. Hansen, Sofie Vantourhnout, Christian Vandercammen JSC) and the financial support of RASAB.

[c] In this report we wish also to thank the Sponsor Companies of the Closing Event and to the CEFIC to have made it possible. (BASF, DOW, DuPont, GSK, UCB, McKinsey, Total and SOLVAY.

5. Future Perspectives

The IYC 2011 success is not an end but a leverage to continue the action of promotion of chemistry.

The committee will start a reflection to keep the momentum and keep the focus of the committee on the motivation of young generation for science.

NATIONAL COMMITTEE FOR CRYSTALLOGRAPHY

1. Introduction, mission, goals

Crystallography is the study of the atomic and molecular structure of diverse substances using microscopy and diffraction techniques in order to understand the relationship between atomic structure and properties of these materials.

The objectives of the National Committee of Crystallography are to promote cooperation in crystallography, to contribute to all aspects of crystallographic research, to catalyze the relations of crystallography to other sciences, to promote crystallography for the general public, and to represent Belgian crystallographers in international associations.

The committee has its own *web site* (sites.google.com/site/xallobe), which is administered by Johan Wouters, and organizes a yearly crystal growing competition for pupils at secondary schools.

2. Meetings of the Committee

[a] The first meeting took place on 16 March 2011. During this meeting the Sixth Belgian Crystallography Symposium BCS-6 (Brussels, 13 October 2010) has been evaluated. Furthermore an overview of the inscriptions and preparations of the Belgian Crystal Growing Competition was given and the date of the prize awarding ceremony in the Academy Palace was fixed at 25 May 2011. A first brainstorming for possible activities in Belgium related to the International Year of Crystallography (planned in 2013) took place. Finally, the Belgian representation for the Council Meeting of the European Crystallographic Association (ECA) and the General Assembly of the International Union of Crystallography (IUCr) in Madrid has been discussed.

[b] During the second meeting on 12 October 2011 the Belgian representatives reported on the Council Meeting of the European Crystallographic Association and the General Assembly of the International Union of Crystallography held in Madrid. The preparations for the twelfth edition of the Belgian Crystal Growing Competition 2012 were initiated,

and the initiatives of the National Committee of Crystallography related to the International Year of Crystallography have been refined further.

3. General Assembly of the Scientific Union

Three general Assemblies were held during the IUCr Meeting in Madrid in the evenings of August 23rd, 24th, and 27th.

The main topics and decisions are summarized below:

- The ninth Ewald Prize had been awarded to Professor E. Dodson, Professor C. Giacovazzo and Professor G.M. Sheldrick who gave lectures at the opening ceremony.
- Applications for membership of the Union of two countries (Bulgaria and Republic of Ireland) were received and accepted.
- Small amendments to status have been proposed and approved (details in annex). Among those it has been proposed that “The six ordinary members of the EC should always include at least one member from each of the three geographical regions: (i) Europe and Africa; (ii) the Americas; and (iii) Asia and Oceania”. It has also been proposed that “The Statutes and By-Laws should be revised to allow electronic means of communication”, in particular to allow electronic voting.
- Financial report has been given by the General Secretary and Treasurer and was approved.
- IUCr has obtained the support of many scientific associations to promote the International Year on Crystallography in 2013 (IYCr2013). IUCr is prone to favor any initiative in this context. The results of the logo competition for IYCr2013 have been announced at the Congress.
- Commission of journals
 - [a] The citation impact of IUCr journals continued to be high, with the journals occupying two or three of the top six ranking positions in crystallography.
 - [b] The move of Section E to full open-access publication from 2008 has been a success.
 - [c] Ethics in science publication has been a topic of general concern.
 - [d] Obtaining competent reviews within a reasonable time is getting more and more difficult.

- Reports of the non-publishing commission have been provided.
- Formation of a new Commission on Magnetic Structures has been approved.
- The General Assembly has determined the number of elected members of each Commission set up by the General Assembly (appendix 23 to agenda).
- Regional and Scientific associates (ACA, ECA, AsCa) have presented their reports.
- Date and place of Twenty-Third General Assembly (2014) have been confirmed: Montreal.
- Date and place of Twenty-Fourth General Assembly (2017) have been determined after voting. Two bids were received: Prague (Europe) and Hyderabad (India, Asia). After voting Hyderabad was selected.
- Budget for the coming triennium has been presented and accepted. The Executive Committee recommended to the General Assembly that the Unit Contribution should remain at its present level of CHF 1,000 (set at the Beijing Congress in 1993) for the years 2012–2014. This was accepted.
- Initial appointments and re-appointments of the Editors of the publications of the Union were made by the Executive Committee and confirmed by the General Assembly. L. Van Meervelt was elected Co-editors of *Acta E*.
- Chairs and members of commissions were elected (list in appendix 33.1 on annex). In particular, J. Hadermann (Antwerp) was elected member of the Commission on Aperiodic Crystals and the Commission on Electron Crystallography. F. Hatert (Liege) was elected member of the Commission on Inorganic and Mineral Structures.
- New officers of the Union were elected leading to the following membership of the Executive committee:
 - President: G.R. Desiraju (India)
 - Vice-President: C. Lecomte (France)
 - General Secretary and Treasurer: L. Van Meervelt (Belgium)
 - Immediate Past President: S. Larsen (Denmark)
 - Ordinary members: E. Boldyreva (Russia), J.M. Perez-Mato (Spain), W. Depmeier (Germany), M.L. Hackert (USA), H.A. Dabkovska (Canada), M.J. Guss (Australia)

4. Other activities

[a] The National Committee of Crystallography has organised in 2011 with support of both academies and sponsor Chem-Lab a successful eleventh edition of the Crystal Growing Competition for pupils of the secondary schools (see web site <http://www.chem.kuleuven.be/bcc/>). For this edition Mohrs salt $((\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O})$ has been chosen as crystallising compound. The *judging* of the submitted crystals took place on 14 May 2011 in Namur. During the proclamation on 25 May 2011 in the Academy Palace the film Giant Crystals (Granada) has been projected (introduced by Dominique Maes).

[b] Joke Hadermann has represented the Committee at the Council Meetings of the European Crystallographic Association ECA. Luc Van Meervelt has also participated as member of the Executive Committee of the European Crystallographic Association to these meetings. Frederique Hatert (ULiège) has been elected member of the IUCr Commission Inorganic and Mineral Structures. Joke Hadermann is active member of IUCr commissions Aperiodic Crystals and Electron Crystallography. Luc Van Meervelt has been elected General Secretary and Treasurer of the IUCr.

5. Future perspectives

Organisation of the seventh Belgian Crystallography Symposium (contact forum October 2012).

Participation in the International Year of Crystallography IYCr.

NATIONAL COMMITTEE FOR GEODESY AND GEOPHYSICS

1. Introduction, mission, goals

The BNCGG serves as a link between IUGG and the Belgian scientists working in the fields of Geodesy and Geophysics. This activity reaches a climax every four years at the IUGG general assembly. The BNCGG is then charged to propose to the Academy the national delegates to IUGG and to its eight Associations:

- International Association of Cryospheric Sciences (IACS);
- International Association of Geodesy (IAG);
- International Association of Geomagnetism and Aeronomy (IAGA);
- International Association of Meteorology and Atmospheric Sciences (IAMAS);
- International Association of Hydrological Sciences (IAHS);
- International Association of the Physical Sciences of the Ocean (IAPSO);
- International Association of Seismology and Physics of the Earth Interior (IASPEI);
- International Association of Volcanology and Chemistry of the Earth Interior (IAVCEI).

In the mean time the BNCGG organises regularly conferences by known Belgian or foreign scientists.

The BNCGG tries also to encourage the participation of young scientists to the IUGG General Assemblies by attributing grants.

Belgium was among the 9 countries that established the International Union of Geodesy and Geophysics (IUGG) on July 28, 1919 in Brussels. The Belgian National Committee for Geodesy and Geophysics (BNCGG) was created shortly after in 1921. The running expenses were covered until 1950 by the National Cartographic Institute and later on by Royal Academy of Belgium, now split into "Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten" and "Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique".

In parallel with the BNCGG there exists since 1955 an "Association sans buts lucratifs de droit belge" called "Comité National Belge de Géodésie et de Géophysique, Bruxelles". It is charged to administrate the finances of the Committee.

2. Meetings of the Committee

Dates and main conclusions:

During 2011, the CNBGG had one General Assembly (27/01/2011) and two other meetings (23/05/11 and 07/11/11) with several talks.

The following talks were given to the Committee:

[a] 27/01/11 at 15h00: Dr. Romain Maggiolo, (Belgian Institute for Space Aeronomy) presented in English at the RMI a talk entitled:

Ionospheric outflow: influence of the Earth magnetic environment: One of the most remarkable features of the solar system is the variety of planetary atmospheres. Venus, Earth, and Mars are approximately at the same distance from the Sun. This means they formed out of the same material and had approximately the same initial temperatures. However, they have evolved differently. The atmosphere is now dense and hot on Venus, cold and tenuous on Mars and in-between on Earth. This is partly because the atmospheric erosion differs from one planet to another. Among the mechanisms that control atmospheric erosion, the interaction between the solar wind -a flow of charged particles continuously emitted by the Sun- and the planetary ionospheres -the ionized portion of the upper atmosphere- is believed to play a significant role. Contrary to Mars and Venus, the Earth has a strong magnetic field. It acts like a shield creating a bubble, the magnetosphere, which separates its ionosphere from the solar wind. However, this shielding is only partial. The magnetosphere is actually a complex and dynamic environment coupling the solar wind and the ionosphere via plasma and energy exchange. After a brief introduction on atmospheric evolution, I'll go through the main mechanism that controls ionospheric outflow on unmagnetized (Venus and Mars) and magnetized planets (Earth). We'll see how the presence of a magnetosphere influences ionospheric particles escape on Earth and to what extent the Earth magnetic shield is protective.

[b] 23/05/11 at 13h00: Pr. Michel Crucifix, du Georges Lemaître Centre for Earth and Climate Research de l'UCL, presented in English a talk entitled:

"Probabilities, Dynamical Systems, and Climate Sciences: how do we put this together?"

[c] After the coffee break, the meeting continued at 14h10 with Dr. Michel Van Camp (Département des Systèmes de référence et géodynamique, Royal Observatory of Belgium) who presented in English a talk entitled:

"An unexpected earthquake but an expected tsunami in Northern Honshu (Japan) on March 11, 2011."

[d] 07/11/2011 at 14h00: Dr. Gaetan Le Chat (LESIA, Observatoire de Paris-Meudon)

Large-scale variation of the high latitude fast solar wind properties: Since the first measurements of the solar wind in 1960, the properties of this plasma outflow from the Sun has been intensively studied, theoretically and by in situ measurements. However, some features still remain not understood, as the transport of the energy in collisionless plasmas like the solar wind. Measuring the temperature of the electrons and their nonthermal properties can give important clues to understand the transport properties. Quasi-thermal noise spectroscopy is a reliable tool for measuring accurately the electron density and temperature since it is less sensitive to the spacecraft perturbations than particle detectors.

This noise is produced by the quasi-thermal fluctuations of the particles and allows measuring the moments of their velocity distributions. We apply this method to Ulysses radio data obtained during the first pole-to-pole fast latitude scan in the high-speed solar wind, using a kappa function to describe the electron velocity distribution. We deduce the variations with heliocentric distance between 1.5 and 2.3 AU in the fast solar wind at high latitude in terms of three fitting parameters: the electron density varies as $n_e = 26.8 R^{(-1.96 \pm 0.08)}$, the electron temperature as $T_e = 2.3 R^{(-0.53 \pm 0.15)}$, and the kappa index of the distribution remains constant at $\kappa = 2.0 R^{(-0.02)}$. These observations agree with the predictions of the exospheric theory.

[e] 15h00-15h45: Dr. Norma Crosby (BISA).

Welcome to the World of Solar Energetic Particles: Solar energetic particles [SEPs] are charged particles (mainly protons, electrons, and α -particles with small admixtures of ^3He -nuclei and heavier ions up to iron) that follow the interplanetary magnetic field lines that are embedded in the solar wind. SEP events are sporadic and difficult to predict, lasting from minutes to days with energies from a dozen keV to a few GeV. They are associated with solar flares and/or the shock waves generated by coronal mass ejections. SEP events are a serious radiation hazard for spacecraft as well as a severe health risk to humans travelling in space. Strong SEP events can also produce intense ionization in the D-region ionosphere over the polar caps; such polar cap absorption events can be devastating to radio communications. In summary, SEP events are of interest in regard to basic research (sources, acceleration, propagation), as well as from the practical side (the damage they may cause). This talk will present our current understanding of SEP events and how one can study them (individually or statistically). Various statistical and

physical modelling techniques will be presented (e.g. ESA SEPEM project, EU FP7 COMESEP project).

3. General Assembly of the Scientific Union

Dates:

The XXV General Assembly of IUGG was held on June 27 - July 8, 2011 in MELBOURNE Australia (<http://www.iugg.org/assemblies/2011melbourne/>)

- The President of our committee Johan De Keyser attended the IUGG General Assembly as Belgian National Representative for the IUGG Council.
- Resolutions adopted by the council can be found at <http://www.iugg.org/resolutions/>.
- He voted also for IAGA2011 (International Association of Geomagnetism and Aeronomy) scientific Assembly as Belgian delegate
- Prof. Philippe Huybrechts attended International Association of Cryospheric Sciences (IACS2011) scientific Assembly.
- Prof. Véronique Dehant attended International Association of Geodesy (IAG2011) as Belgian delegate

The other Belgian representative delegates were also present or provided a procuration to another delegate:

- Prof. Niko Verhoest was represented by Sander Vandenberghe for the International Association hydrological Sciences (IAHS2011)
- Dr. De MAZIERE, Martine for the International Association of Meteorology and Atmospheric Sciences (IAMAS2011).
- Prof. Thierry Fichet was represented for the International Association of the Physical Sciences of the Ocean (IAPSO).
- Prof. Thierry Camelbeeck was represented for the International Association of Seismology and Physics of the Earth Interior (IASPEI).
- Prof. Alain Bernard for the International Association of Volcanology and Chemistry of the Earth Interior (IAVCEI).

Main conclusions:

Inside the International Union of Geodesy and Geophysics (IUGG) there are seven associations (see Goals of CNBGG).

For each of them, the National Representative can vote for Belgium during the General Assembly of the Association.

Each National Committee for Geodesy and Geophysics, which functions as a non-governmental entity in its relations with IUGG, is represented at General Assemblies of the Union by Delegates appointed by its Adhering Body. During these assemblies, policies governing the Union are agreed on, research programmes requiring international participation are formulated and coordinated and plans are drawn for their execution. The scientific results of programmes in progress are discussed at the numerous Scientific Symposia, Commission and Working Group meetings and other gatherings of scientists that are held during these assemblies. General Assemblies have been held since 1922 and, since 1963, at 4 years intervals. The last General Assembly was held in Melbourne, Australia in 2011.

4. Other activities

[a] Closing Ceremony of the International Year of Chemistry on 2011 December 1

On behalf of IUGG President H. Gupta and Secretary-General A. Ismail-Zadeh, the Closing Ceremony of the International Year of Chemistry 2011 (IYC2011, <http://www.chemistry2011.org/>) was attended by J. De Keyser (IUGG representative in Belgium).

The afternoon-filling program kicked off with opening words of HRH Prince Philippe of Belgium, M. Geoghegan-Quinn, EU Commissioner for Research, Innovation and Science, and by Prof. Nicole Moreau, President of IUPAC (International Union of Pure and Applied Chemistry). All speakers highlighted the importance of chemistry in our society and reviewed some of the accomplishments of IYC2011, mainly in the area of education and public outreach. Then followed a very lively programme in which a group of young chemists in research and industry visually put forward their vision of the future by telling the stories of three accomplished chemical scientists in 2050 ... In doing so, they highlighted the potential role of chemistry in addressing society's biggest challenges: to guarantee pure water, food, energy, and healthcare for all. They advocated concerted efforts involving industry, academia, government, and the general public. The program continued with lectures on antibiotics by A. Yovath (Nobel Prize in Chemistry 2009) and on organic LEDs and photovoltaics by J.L. Brédas (Francqui Prize 1997). There was an interesting panel discussion with scientists and industry leaders on various aspects of the future of chemistry, research, public-private partnership, the role of women in chemistry, and education. The IYC2011 was formally closed by M. Nalecz, Director, Division of Basic and Engineering Sciences at UNESCO, under whose auspices this International Year was organized.

The geophysics community might be interested in two particular achievements of IYC2011:

[b] A set of 9 lessons has been created for communicating climate change science, targeted at age 16-19 (<http://www.explainingclimatechange.com/>).

[c] A worldwide chemistry experiment “Water: A Chemical Solution” has been conducted during IYC2011. It actually consisted of running a set of four adaptable experiments focusing on water, aimed at a range of ages from primary school to high school. The experiments include determining the pH and salinity of water, which are parameters of geophysical relevance. The results are reported on the experiment’s website (<http://water.chemistry2011.org/>).

This IYC2011 event was quite illuminating for a geophysicist, as it leads one to realize that there are very close ties between chemistry and geophysics. Some of the big challenges that were identified relate directly to geophysical problems. Hydrology plays a major role in addressing the challenge for access to pure water, for instance. The quest for sustainable energy sources involves studies of solar irradiance, greenhouse gas emissions and atmospheric chemistry, carbon capture and sequestration and geologic storage.

5. Future perspectives

The mandates of our effective and associated members have to be renewed every 4 years. The last time was in 2008, so it will be the case again in 2012. Letters for renewal have been sent in November 2011.

The next IUGG General Assembly will be held in Prague, Czech Republic in 2015.

The next BNCGG General Assembly is planned on Thursday 26-1-2012.

NATIONAL COMMITTEE FOR GEOGRAPHY

1. Introduction, mission, goals

The National Committee for Geography represents Belgian scientists working in the field of Geography in the work of IGU. This Committee is a forum for exchanging views on the landscape of Geography in Belgium.

2. Meetings of the committee

The National Committee for Geography met four times in 2011, on the 22nd of January, on the 11th of June, on October the first and the 10th of December. This last meeting was dedicated to the preparation of a publication on the occasion of the *International Geographical Union Conference* in Cologne (26-30 August 2012).

Themes discussed at the various meetings:

- The organization of the Belgian Geographers Days;
- Future of Bevas and BELGEO;
- Belgian participation in the International Geographical Union conference.

3. General Assembly of the Scientific Union

The *International Geographical Union conference* will be held in Cologne on 26-30 August 2012. The national representative for Belgium will be Prof. Vandermotten. Two trips were proposed by the NCG to the organisers of the ICU:

- Dutch and Belgian port cities, gateways to the heart of Europe, under the direction of Prof. Charlier;
- Metropolisation, gentrification and social housing in the old Belgian historical cities, under the direction of Prof. Vandermotten.

The NC investigates the possibility to have a booth at the conference. With this they would consult with map and atlas publishers in Belgium in order to be able to bear the costs.

As a third element of the visibility of Belgium, there is an investigation about offering a publication from about 40 pages where Belgium is presented in. This publication would

conceptually consistent with the ongoing publication series of the National Atlas. Prof. Van Hecke observes the coordination of this.

4. Other activities

[a] The organization of the Belgian Geographers Days

The Belgian Geographers Days 2012 will be organized by the UCL on 9 and 10 November 2012. The first day will be devoted to research, the second day to education. A visit to Louvain-la-Neuve is also planned.

[b] Subcommittee National Atlas

Thanks to the program 'ATLAS' of the Federal Science Policy, the third ATLAS of Belgium will be realized. Part 2, 'Landscapes, rural and agriculture' was published in October 2010 and Part 4 'Housing' was published in Spring 2011 in both national languages. Both parts were presented in a press conference in the presence of Minister Delaruelle. This gave ATLAS many press- and media interest. The parts 'Economic Geography' and 'Population' will appear in the second half of the year 2012. Because of the budget the part of the towns would also appear in 2012 but the authors have not yet submitted their final text. Parallel there is, thanks to funding from another Federal Science Policy, the first phase of a project 'Web-ATLAS', carried out by professors J.P. Donnay (ULg) and P. De Maeyer (Ugent). This was also presented on the occasion of the press conference. The Federal Science Policy allocated a separate funding to Professor Donnay to elaborate 'WEB-Atlas'.

[c] Subcommittee for Cartography and SIG

Belgium participated in the International Cartographic Conference (ICC 2011), organized by the International Cartographic Association (ICA), and was represented at the general meeting of ICA in Paris. Belgium also took part in the cartographic drawing contest for children (3 categories) and was well represented with maps and atlases, which were produced in Belgium, at the international exhibition of cartography. Some members of the subcommittee were present at the congress.

[d] Subcommittee for Geomorphology

For the activities, please consult the report of the Belgian Association of Geomorphologists.

5. Future perspectives

[a] Future of BELVAS and BELGEO

The Belgian Association for Geographical Studies (Bevas) has a decreasing number of members and the last two presidents resigned because of healthy reasons. Bevas, in partnership with the Société royale Belge de Géographie (SRBG), takes care of the BELGEO magazine. Bevas was founded in the 1930s to unite the Belgian academic geography. BELGEO was created by the merger of the magazine of Bevas and the Revue Belge de Géographie, with the intention to realize a national academic journal. From 2012 on, the magazine will only be distributed electronically. The prospects are that Bevas will be shut down.

The NC emphasizes the usefulness of geographical journals that are grounded in Belgium. The NC wants to support the federal nature of BELGEO and proposes - like what happens in the UK – to publish BELGEO with the indication Belgian National Committee for Geography with Royal Belgian Geographical Society. The Committee will also agree that the Bulletin de la Société Géographique de Liège bears the indication "sous le patronage du Comité National Belge de Géographie".

NATIONAL COMMITTEE FOR GEOLOGICAL SCIENCES

1. Introduction, mission goals

The mission of the committee is to promote geology and to co-ordinate at a national and international level, the activities of the geological departments that are present in the different Belgian academic and scientific institutions. Members of the committee also act as representatives of Belgium in the International Council of Scientific Unions (ICSU). At present, the national committee co-ordinates the activity of a number of commissions and working groups such as the National Commission on Stratigraphy (sub-divided in specific subcommissions) and the Working group on Structural Geology. The National Committee of Geological Sciences of Belgium has close relationships with the International Union of Geological Sciences (IUGS), which is also a member of ICSU. The IUGS is a non-governmental organization that promotes and encourages the study of geological problems, especially those of world-wide significance.

2. Meetings of the Committee

The Committee held two ordinary meetings on May 15th and November 10th.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

The annual meeting of the National Stratigraphic Committee has taken place under the presidency of N. Vandenberghe on December 7th in the building of the Belgian Geological Service in Brussels. The webpage of NCGW/CNGS has been updated and moved to the new URL: <http://www.ncgwcnsng.ugent.be/>.

5. Future perspectives

Organization and preparation of a symposium devoted to our national geological heritage and to geotourism planned to take place in November 2012.

NATIONAL COMMITTEE FOR LOGIC, HISTORY AND PHILOSOPHY OF SCIENCES

1. Introduction, mission, goals

According to the mission of the National Committees, as stipulated in the Royal Decree of 2 April 1979, the National Committee aims to promote and coordinate research activities on Logic, History and Philosophy of Science in Belgium, primarily with regard to the international representation of Belgian scholarship in the International Council of Scientific Unions.

The National Committee is the Belgian member of the International Union of History and Philosophy of Science (IUHPS), both of its Division for History of Science and Technology (DHST) and its Division of Logic, Methodology and Philosophy of Science (DLMPS).

In practice the National Committee acts along three axes:

- To represent Belgian scholarship on the international level by being present as a member or spokesperson with international organizations (IUHPS, European Society of History of Science).
- To coordinate Belgian scholarship by setting up collaborations and joint projects with other institutions (National Centre for the History of Science [KBR], Gewina [Belgian- Dutch Society for the History of Universities and Science], BSLPS [Belgian Society for Logic and Philosophy of Science]).
- To promote the integration of historical and philosophical studies of science.

2. Meetings of the Committee

During 2011, the Committee held two general meetings, on April 27 and on November 25. Apart from deliberations on administrative matters and correspondence, several scientific papers were presented.

On April 27, presentations were held by:

- M.C. Claes (KIK/IRPA), *Marcellin Jobard (1792-1861), vulgarisateur méconnu des progrès scientifiques en Belgique sous la période hollandaise et le règne de Léopold Ier.*
The text of this presentation was afterwards distributed to the members.

- Kristel Wautier (UGent), *Een greep uit het onderzoek in het Museum voor de Geschiedenis van de Wetenschappen: over de geschiedenis van de biologie te Gent*. The slides of this presentation are available on request.

On November 25, one scientific paper was read:

- Dr. Sophie Glansdorff (NCGW), *Du coq à l'âne. Pour une première approche de l'usage des animaux dans la médecine médiévale*.

At its meeting of 25 November, the National Committee adopted a logo, for use on its website and publications.

3. General Assembly of the Scientific Union

After some confused correspondence, the National Committee was finally able to confirm its right as the Belgian representative to the General Assembly of the IUHPS/DLMPS.

The National Committee appointed Prof. dr. Joke Meheus as its representative at the 14th General Assembly of the IUHPS/DLMPS, during its International Conference at Nancy (France), on 19-26 July 2011. Due to illness, however, Prof. Meheus was not able to attend the conference.

The next General Assembly will take place in 2015 at Helsinki (Finland). The minutes of the General Assembly are available at <http://www.dlmps.org/agenda11.html>. The main points in the minutes concern the inclusion of technology in its subject domain, and the collaboration between DLMPS and its sister organization DHST. Both developments reflect similar efforts by the National Committee.

4. Other activities

[a] Bestor:

BESTOR stands for Belgian Science and Technology Online Resources. It is the aim of the project to establish a wiki-website on Belgian scientists, in order to enhance the public image of the Belgian science with different target audiences (schools, journalists, citizens, etc.). Also the project aims to offer to researchers a much needed online tool to investigate the wider scientific community in Belgium, in particular for twentieth century science. The first stage of the project focuses on biographical pages of members of the Science Class of the Royal Academies of Science, Letters and Arts. In many cases, related online resources (biographical notices, publications, images, etc.) are provided. Funding for the project is provided by BELSPO, which grants an annual subsidy.

During 2011, the project was carried out by Alix Badot (until 31 August) and Wendy Van de Camp, working in an office of the KVAB. The National Committee collaborates with the National Centre for History of Science (KBR), which provides entries on scientific societies. The project is counseled by a steering group, with delegates from the National Committee (Geert Vanpaemel, Carmélia Opsomer), RASAB (repr. by Sofie Vanthournout), BELSPO (repr. by Bertha Depoorter), universities (Isabelle Rothier [UGent] and Didier Devriese [ULB]) and other scientific institutions (Brigitte Van Tiggelen [National Centre for the History of Science, KBR]). Geert Vanpaemel assures supervision of the project.

The website of BESTOR can be accessed from <http://www.bestor.be>. Technical management and maintenance is carried out by the ICT Desk of the Faculty of Arts of the KU Leuven, where the physical storage of BESTOR is also located.

By 1st February 2012, BESTOR contained 484 French entries and 486 Dutch. More than half of these pages are biographical notices on scientists, with others relating to scientific institutions, journals, societies, universities, prizes, etc. The project on the members of the Academy will be completed by the end of February.

As a result of the large number of entries, it has become necessary that a larger group of historians should be involved in reading, supplementing and correcting their content. Also BESTOR should be extended with thematic entries, which guide the reader through relevant historical themes (e.g. the history of chemistry, the reception of Darwinism, etc.) Members of the National Committee are invited to contribute, although the pages will not be made accessible to contributors outside the National Committee.

[b] International Workshop:

The National Committee organized, in collaboration with Memosciences and the Division d'histoire de la chimie de la Société Royale de Chimie an international workshop on "Atomes, molécules et éléments : l'impact de l'hypothèse d'Avogadro". The venue of the workshop was the Academy building. 65 participants attended the workshop. The program was:

- 10h15 – Registration
- 10h40 – Dr Brigitte Van Tiggelen (UCL, Memosciences, B) "Introduction à la journée"
- 10h45 – Dr Catherine Kounélis (ESPCI, F) "D'Avogadro à Cannizzaro : une hypothèse ignorée ?"
- 11h30 – Prof. Marika Blondel-Mégrelis (CNRS, Université Paul Sabatier –Toulouse, F) "L'hypothèse en chimie"

- 12h15 – Lunch
- 14h00 – Prof. Alain Dumon (IUFM d'Aquitaine, Pau, F) “Des lois des combinaisons aux formules représentatives des substances chimiques”
- 14h45 – Pieter Thyssen (Katholieke Universiteit te Leuven, B) “Mendeleev’s Periodic Law and the 19th Century Debates on Atomism”
- 15h30 – Coffee break
- 15h45 – Thérèse Mayer (Professeur retraité, Mémosciences, B) “Jean Perrin et son plaidoyer décisif : Les Atomes (1913)”
- 16h30 – Discussion

5. Future perspectives

- BESTOR will remain the top priority of the National Committee. The pilot project will be extended towards other federal institutions (observatory, botanical garden, etc.) and contacts will be established with similar databases at universities. Furthermore, the National Committee will make efforts to present BESTOR to the wider public.
- The National Committee will organize in 2012 two general meetings with scientific presentations.
- In September 2012, the Young Researchers Days III will be organized in collaboration with the BSLPS.

NATIONAL COMMITTEE FOR MATHEMATICS

1. Introduction, mission, goals

The National Committee aims at stimulating and coordinating in Belgium research in mathematics, both in pure mathematics and applied mathematics, including education in mathematics. In fact the distinction in pure and applied mathematics is not always easy to make. In pure mathematics we think of algebra, geometry and analysis, but also these areas overlap and do not cover the whole domain. One can think of logic, combinatorics, topology, set theory, etc. Applied mathematics, consisting among others of numerical analysis, statistics, mathematics related to physics, is currently expanding and covers areas such as econometry and finance, informatics, bio-mathematics, etc.

One of the main goals of the committee is to form a bridge between the International Mathematical Union (IMU) and the Belgian scientists who work in the area of Mathematics. As such we choose the delegates that could represent Belgium at the General Assemblies of the IMU and propose their names to both Academies. Together with the Belgian Mathematical Society we take care of informing the Belgian mathematical community by means of the “Newsletter of the Belgian Mathematical Society and the National Committee for Mathematics”.

We aim at having 16 members, respecting linguistic parity, taking care of a good gender representation and having a well balanced participation of the different universities and important mathematical domains.

2. Meetings of the Committee

During 2011 the National Committee for Mathematics only had electronic meetings. Informal discussions took place during the special meeting on November 19, organized at the Academy (see below). The members of the Committee have regularly been informed, by e-mail, about initiatives of the IMU or about the proposals of the IMU for which the opinion of the NCM was requested. All members and honorary members of the NCM received the Electronic IMU-Newsletter and the IMU-Bulletin. They received all final documents concerning the IMU- General Assembly of 2010.

Main decisions:

- Approval of the new IMU-budget structure, developed in accordance with Resolution 14 of the 16th GA.
- Approval of the application of Algeria for a full membership of the IMU.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] On November 19, the meeting “Mathematics in secondary schools: now... and afterwards” has been organized at the Palace of the Academies. It was a joint initiative of NCM, BMS (Belgian Mathematical Society), VVWL (Vlaamse Vereniging voor WiskundeLeraren) and SBPMef (Société Belge des Professeurs de Mathématique d’expression française). There were about 90 participants. The program started with talks by Gilles Godefroy (Paris) and Frans Keune (Nijmegen) on respectively the French and the Dutch school system and mathematics curriculum. It was followed by a panel discussion, chaired by Alain Verschoren, rector of the UAntwerpen, and member of the NCM. Also the audience participated in an active way at the discussion.

[b] The Newsletter appeared five times in 2011 and was distributed both electronically and in a paper version. F.Bastin (vice-secretary of the NCM) is in charge of the Newsletter.

5. Future perspectives

A meeting of the NCM is planned for May 23, 2012, on which, among other items, we will discuss the organization of a PhD day at the Academy on September 9, 2013, as well as the possibility of organizing in 2013 activities related to the ambitious program “Mathematics of Planet Earth”.

NATIONAL COMMITTEE FOR MECHANICS

1. Introduction, mission, goals

The Committee aims to promote the Mechanical Engineering through inter-university Students and Staff exchanges, organisation of a bi-annual National Congress of Theoretical and Applied Mechanics, organisation of a Doctoral School (GrasMech), development of relationships with European and International Mechanical Engineering Institutions or Initiatives (ECCOMAS, EURASEM, IUTAM, a.o.)

2. Meetings of the Committee

Dates: 31st March 2011 and 27th October 2011

Main conclusions: Preparation of Congress 2012, DEGROOTE Joris (UGent) for his thesis 'Development of Algorithms for the Partitioned Simulation of Strongly coupled fluid Structure Interaction Problems' has been proposed as PhD candidate for ECCOMAS, continuous evolution of PhD GrasMech School.

3. General Assembly of the Scientific Union

[a] EURASEM:

- ICEM'15 (International Conference on Experimental Mechanics), foreseen in Porto, 22-27 Jul 2012.
- Prof D. Van Hemelrijck (VUB): permanent Secretary and delegate of Belgian Committee.
- Prof J. Degrieck (UGent): Delegate of Belgian Committee, chairman of Technical committee 'High strain rate and impact testing'.
- The EURASEM evolves towards a European Non-Profit Organization with possible seat in Belgium.

[b] ECCOMAS Conferences: Thematic Conference on Multi-body Dynamics at UCL (4-7 July 2011). The next VI European Congress on Computational Methods in Applied Sciences and Engineering will take place in Vienna, Austria on September 10-12, 2012.

[c] IUTAM: IUTAM General Assembly August 2012, Beijing): the committee will delegate a participant (decision in March 2012).

4. Other activities

GrasMech Courses

Goals: education PhD in: www.grasmech.org

Attendance: about 10 students/course

5. Future perspectives

GrasMech courses 2011-2012, currently adapted

[a] Advanced continuum mechanics:

- Teachers: F. Dupret (UCLouvain), J.P. Ponthot (ULg)
- Dates: Wednesdays 19 and 26 October, and 9, 16, 23 and 30 November 2011
- place : Université catholique de Louvain (UCL), Bâtiment Euler (building 3a in box D9 on the [map](#)), 4 avenue G. Lemaître, 1348 Louvain-la-Neuve (room a.207)

[b] Nonlinear finite elements:

- Teachers: A.M. Habraken (ULg)
- Dates: Thursdays 2, 9, 16 and 23 February 2012, and 1, 8 and 15 March 2012
- place : Université de Liège (ULg), Sart Tilman, 4000 Liège, [building B52-3](#) (room 0/413)

[c] Computational Fluid Dynamics 1: basic discretisation and time stepping methods:

- Dates: spring 2012

[d] Advanced turbulence modelling

- Dates: spring 2012

GrasMech POSTER session 2012, combined with the NCTAM May 9-11, 2012 at the Royal Military Academy, Brussels.

NATIONAL COMMITTEE FOR MICROBIOLOGY

1. Introduction, mission goals

The Committee for Microbiology represents Belgian scientists conducting research in the field of biological sciences in the work of the International Union of Microbiological Societies (IUMS).

2. Meetings of the Committee

The meetings of the NCM were joint meetings with the board of the Belgian Society for Microbiology (BSM), of which some members are also member of NCM and all members of NCM are involved in the advisory board of BSM.

[a] First administrative meeting of 2011 (see also report of 2010):

Joint meeting of the BSM and NCM took place on the 13th of January 2011 in the building of the SCK headquarters (H. Debroux avenue 40 Brussels) (see also report of 2010 for this first administrative meeting).

Agenda:

- Excused (already excused Isabelle George)
- Evaluation Symposium Molecular Dialogue
- Membership BSM
- BSM website
- Topic and date next symposium
- FEMS related business
- AOB

Report of the meeting:

- Evaluation of Symposium on Molecular Dialogue: The symposium was organised by the BSM, NCM and the Belgian Society for Biochemistry. About 180 persons attended the symposium on 18 and 19th November 2010 at the Academy house in Brussels. This initiative to organise a joint meeting was a great success. Interesting discussions occurred because of the high level international lectures.
- Membership of BSM: will be organised via the renewed website.

- BSM Website: proposal for the content of the new website has been approved and the website is supposed to go live in May 2011.
- Topic and, date & program of the next symposium (2011).
Title: Life and survival of microorganisms
Date & venue: 16th November Academy Palace- Brussels
Program: although not completely formalised the program is as follows

[b] Second administrative meeting:

Joint meeting of the BSM and NCM took place in the building of the SCK headquarters (H. Debroux avenue 40 Brussels) on the 12th of April 2011.

Agenda and invitation:

- Symposium 2011
- The start of the new provisional website prepared by Fred Opperdoes - see <http://www.icp.ucl.ac.be/bsm/BSM/Home.html>. Please give your comments and input.
Further input to be discussed during board meeting.
- Symposium 2010: financial overview.
- BSM newsletter – issue 2.
- BSM membership
- Sponsoring: how to attract more sponsors?

Final program of the symposium and date was adapted to the availability of speakers and venue and can be found in addendum.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

Symposium.

NATIONAL COMMITTEE FOR OCEANOLOGY

1. Introduction, mission, goals

The Committee deals with all topics related to research and education in the field of Oceanography. It is an interdisciplinary community involving hydrodynamicists, chemists, geologists, and biologists working in estuarine and coastal systems as well as in open oceans in cold, temperate and tropical environments.

2. Meetings of the Committee

Unspecified.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] 2011 was a hinge year in the activities of the Committee of Oceanology, with the further exploitation of the "Ocean School 010" initiative and the preparation of a 2012 action focused on the expected impact of the Integrated maritime policy for the EU and of the JPI Oceans on Belgian research and education in oceanology, framed in a European perspective. The international workshop Ocean School 010 "Education at sea - Education for the sea" jointly organized by the Committee of Oceanology of the Royal Belgian Academy and VLIZ in Ostend had a lasting impact. Its outcome had been presented at the IOC50 - International Conference 50 Years of Education and Awareness Raising for Shaping the Future of the Oceans and Coasts, IOC-UNESCO, St. Petersburg 27-30 April 2010 and in an invited keynote at the EurOcean 2010 "Grand Challenges for Marine Research in the Next Decade", Ostend, Belgium, 12-13 October 2010. In 2011, Prof. J.P. Henriët, Secretary, was invited to prepare a contribution on Ocean education for the "Navigating the Future 4" document of the Marine Board: "Forging marine and maritime careers". Next, he was invited to prepare a talk on the future of marine education in Europe at the First Conference on European Ocean Literacy (Bruges, October 2012).

[b] The ocean science community in Belgium is strongly involved in the networks created by Belspo (Marine Science Research Programme). In 2011 the ongoing projects came to their end

and a new call for projects starting in 2012 was launched. Hence, final reports had to be written as well as new proposals that were submitted.

5. Future perspectives

For strengthening its involvement in ocean research and education, the Belgian community of researchers in oceanology needs to keep abreast of major developments in European Ocean Governance and Science Policy. Two major and not unrelated developments may heavily impact on research and education in the forthcoming decade: (1) at the level of ocean governance, the implementation of the Integrated maritime policy for the EU and of the Marine Strategy Framework Directive, which should lead to the achievement of good environmental status, and (2) the implementation of the Joint Programming Initiative "Healthy and Productive Seas and Oceans" (JPI Oceans). A study day in 2012 implying stakeholders should allow the Committee of Oceanology to contribute to communication and information about these initiatives in the Belgian research community, involved in ocean science and education.

NATIONAL COMMITTEE FOR PHYSICS

1. Introduction, mission, goals

The Belgian National Committee on Pure and Applied Physics has been created by the Royal Academies for Science and the Arts of Belgium (RASAB). It contributes to the promotion and coordination of Belgian activities concerning Pure and Applied Physics. At the international level it ensures Belgium's representation in IUPAP, the International Union for Pure and Applied Physics. Its activities can be followed on the website <http://www.bncphys.be>.

2. Meetings of the Committee

- Meetings were held on the 7th of February, the 26th of May and the 13th of October. The main interest points of these meetings were:
- Updating of the composition of the NCPAP. One new member was nominated to and approved by RASAB: Dr. Tom Krekels of Umicore, representative of Industry (N).
- The committee accepted the resignation of Prof. Ch. Leclercq-Willain (ULB) and nominated her honorary member.
- The committee started the search for the replacement as ordinary members of Prof. HP Garnir (ULiège, deceased) and Prof. Ch. Willain (retired).
- Preparation of the General Assembly of IUPAP (see 3)
- Preparation and debriefing of the Colloquium 2011 (see 4).
- Updating of the publication "Research in Physics in Belgium" (see 4).

3. General Assembly of the Scientific Union

A general Assembly of IUPAP took place from October 31 till November 4 2011 at the Institute of Physics in London (UK). The chairman, Prof. Weynants, attended the meeting with financial help from RASAB. The NCPAP actively prepared the submission of Belgian representatives in the various IUPAP commissions, resulting in the election of the following persons:

- C4: Cosmic Rays: D. Bertrand (ULB)
- C8: Semiconductors: G. Borghs (IMEC)
- C10: Condensed Matter: Ph. Lambin (FUNDP)
- C12: Nuclear Physics: P. Van Duppen (KULeuven)
- C16: Plasma Physics: D. Carati (ULB)

- C17: Quantum Electronics: N. Cerf (ULB)
- C19: Astrophysics: C. Waelkens (KULeuven)

4. Other activities

[a]The 2011 colloquium of the NCPAP

The NCPAP organized, with the help of RASAB, its bi-annual 2011 colloquium in the Palace of the Academies on March 19, 2011. The title was “Cosmology: The Science of the Universe” and featured the following speakers:

- Prof. Carlos Frenk (Durham University, UK): Recreating the cosmos in a supercomputer: the evolution of galaxies and larger scale structures.
- Prof. Ariel Goobar (Univ. Stockholm): Observational Cosmology and Supernovae.
- Prof. Paolo De Bernardis (Univ. Roma Sapienza): Cosmic Microwave Background Radiation and the Big Bang.
- Prof. Joseph Silk (Univ. Oxford): Particle cosmology, dark matter and dark energy.

The event was very successful. The excellent presentations were beautifully complemented by the continuous projection of a 3-D movie “Cosmic Origins”, produced by Durham University. There was also a Poster Session with 13 contributions from the Belgian research groups working in Cosmology and Particle Astrophysics at UGent, VUB, ULB, UMons, UCL, FUNDP, UA and Durham. The colloquium attendance numbered 101.

[b]Update of Research in Physics in Belgium:

The NCPAP initiated for the first time in 2005 the compilation of short reports on the main physical research topics in Belgium, both theoretical and experimental. Fifteen of these were written by prominent Belgian researchers, actively involved in the IUPAP Commissions, and were published in 2006 in Physicalia Magazine and posted on the websites of the NCPAP (<http://www.bncphys.be/>) and of the Belgian Physical Society (<http://sites.google.com/site/belgianphysicalsociety/>).

The NCPAP considered that the time was ripe for an update as in the meantime new research topics have emerged, people have retired and new talents have joined the various fields. The first five updated reports were published on-line in issue BPhy_2011_4, of BPhy-Magazine, the successor of Physicalia Magazine, and will be incorporated with the remaining reports at the stated websites.

5. Future perspectives

An important preoccupation in 2012 will be the replacements as ordinary members of Prof. H-P Garnir and Prof. Ch. Willain. Another significant item will be the preparation of the 2013 Colloquium.

NATIONAL COMMITTEE FOR PHYSIOLOGY AND PHARMACOLOGY

1. Introduction, mission, goals

The goal of the Committee is to organize national and international scientific meetings in which Belgian Physiologists and Pharmacologists (and eventually their guests) can present and bring up for discussion the results of their recent research in the fields of Physiology and Pharmacology.

2. Meetings of the Committee

Date and place: Wilrijk-Antwerpen (Universiteit Antwerpen), October 22th 2011

[a] The administrative and accounting reports for 2011 are discussed and approved.

[b] Prof. Dr. J. Van de Voorde attended the FEPS Council Meeting during FEPS Meeting in Istanbul, which was organized with the National Turkish Physiological Society. He commented the proposal of FEPS to organize a pan European meeting every three years and every year a joined meeting with a national society. The request to the national societies not to organize a national meeting in the year of a FEPS-meeting was not found appropriate by the Society members. Our national meetings give the opportunity to young researchers to present their results orally or in a guided poster session. It is our experience that this opportunity is not always available in international congresses.

The Assembly is also asked to decide on a proposed amendment to the IUPS constitution about the establishment of a new entity "Board of the General Assembly". Prof. Dr. J. Van de Voorde, the representative of our Society in IUPS, explains that the aim is to create this entity as a liaison between the General Assembly and the Executive Committee and Council during the years where there is not IUPS congress. The members approve the creation of the IUPS Board of the General Assembly.

[b] The annual membership fee for our Society remains 40 €. The Assembly urges the members to pay their dues on time. The Assembly decides to give a honorary membership to retired Society members who have been member during several years. Their membership will be maintained free of charge. Honorary members can vote on the general assembly when there are present. The Royal Academy of Sciences and Arts of Belgium (RASAB) will be asked to pay the membership dues to IUPS and IUPHAR.

[e] Elections

Prof. Dr. Hidde Bult (Universiteit Antwerpen) was elected as Second Vice-Chairman.

For 2011 the board will be as follows:

Chairman	Prof. Dr. Dirk Snyders (UAntwerpen)
First Vice-Chairman	Prof. Dr. Bruno Flamion (FUNDPNamur)
Second Vice-Chairman	Prof. Dr. Hidde Bult (UAntwerpen)
Secretary General	Prof. Dr. Vincent Seutin (ULiège)
Session Secretary - Treasurer	Prof. Dr. Johan Van de Voorde (UGent)
Advisors	Prof. em. Dr. Eric Lacroix (UGent)
	Prof. em. Dr. Théophile Godfraind (UCLouvain)

[e] Membership in the National Committee of Physiology and Pharmacology: Prof. Dr. T. Godfraind reports on the proposal of the National Academy to enlarge the National Committee of Physiology and Pharmacology. Four active members of the Society, Philippe Gailly (UCLouvain), Philippe Lebrun (ULBruxelles), Ilse Smolders (VUBrussel) and Dirk Snyders (UAntwerpen) have been proposed. The Assembly approves these proposals.

[f] The candidatures of two new members are approved: Abdullah Sener (ULBruxelles) and Xavier Florence (ULBruxelles), both sponsored by Philippe Lebrun and Sylvain Meuris

[g] Calendar of the national meetings:

March 16 2012, UHasselt (Prof. Dr. Jean-Michel Rigo)

The Assembly decides to organize this meeting on a weekday (Friday) in a central location. The proposal is the Academy Building, Hertogsstraat in Brussels, near the Central Station. J.M. Rigo will organize the meeting. T. Godfraind volunteers to find an auditorium.

Autumn 2012, FUNDPNamur, (Prof. Dr. Bruno Flamion)

2013

The Board of our Society is invited to a meeting in Maastricht with the Dutch Colleagues concerning the opportunity to organise a second Benelux Congress on Physiology and Pharmacology.

[h] International Meetings

July 17-20/2012

Granada (Spain)

6th European Congress of Pharmacology (EPHAR)

www.ephar2012.org

September 21-26/2012

Santiago de Compostela (Spain)

Joint FEPS and the Spanish Physiological Society

(website will be launched soon)

July 21-26/2013

Birmingham (U.K.)

IUPS – 37th Congress of the International Union of Physiological Sciences

www.iups2013.org

July 13-18/2014

Cape Town (South Africa)

XVIIth Word Congress of Basic and Clinical Pharmacology

www.iuphar2014.org

[i] Miscellaneous - Points to discuss

- Publication of abstracts on line in Acta Physiologica. “Acta Physiologica” has decided to stop publishing the on line abstracts without costs and requires abstract submission several weeks before the meeting. An amount of 300 EUR was paid for the publication of the abstracts of the 1st Benelux Meeting of Physiology and Pharmacology in Liège (March 2011). However it is decided to publish in the future the abstracts of our future meetings on our Society website, as “Proceedings of the Belgian Society of Physiology and Pharmacology”.
- Further strategy of the Society. An adaptation of the number of yearly meetings is discussed considering the often limited abstract submission rate after the first meeting announcement. One problem could be the fact that our meetings are organized on Saturdays. Therefore, the next meeting is scheduled in Brussels at the Academy Building (cfr. 7 Calendar of the National Meetings) on a Friday. This central location in Brussels can be easily reached by railway, thus avoiding traffic problems.

- The next point of discussion is to examine how our Society Meetings can be involved in Ph.D. post-graduate courses. This could increase the impact of the Society. No formal decision is made.
- It is generally felt that the official name of the Society, namely “Belgian Society of Fundamental and Clinical Society of Physiology and Pharmacology” is rather long. As both the fundamental and the clinical aspects are included in our Society, it is decided to rather use the shortened Society name, namely “Belgian Society of Physiology and Pharmacology”.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other Activities

[a] Organization of the First Benelux Congress on Physiology and Pharmacology in Liège 18-19 March 2011 aiming to bring together all physiologists and pharmacologists from Benelux and with guest lectures from renowned experts from abroad. About 150 scientists attended the meeting. See: <http://www.physpharbenelux.org/>

[b] Organization of the National Autumn meeting of the Belgian Society of Physiology and Pharmacology, October 2nd in Antwerp aiming to bring together the physiologists and pharmacologists from Belgian laboratories. About 60 scientists attended the meeting. See: http://users.ugent.be/~jvdvoord/physiology&pharmacology/october_22,_2011.htm

5. Future perspectives

Organization of 2 national meetings in 2012 and the Second Benelux Congress on Physiology and Pharmacology in Maastricht in 2013.

NATIONAL COMMITTEE FOR PSYCHOLOGICAL SCIENCES

1. Introduction, mission, goals

The statutes of the National Committee for Psychological Science state the following:

Article 2: The goal of the Committee being:

To undertake, promote and coordinate psychological scientific research, focusing in particular on long term, intercollegiate or interdisciplinary projects and to serve psychological scientific interests in Belgium from a national as well as an international point of view

2. Meetings of the Committee

The Committee held two meetings in 2011: The first took place on April 30th; the second on November 14th.

[a] Meeting April 30th

- Philippe Peigneux is a new member of the committee.
- Eric Soetens (president of the exam jury) reports on the procedure and winner of the best thesis award.
- Next Assembly meeting of the UPsyS will be held on July 2012 at Cape Town. Belgium can send two delegates. One delegate from BAPS and one from the National Committee. The fees are financially supported by the Academy.
- The new symposium on the Social Brain will be held on Monday the 14th of November and is organized by F. Van Overwalle, M. Brass, D. Samson and A. D'Argembeau.
- Two initiatives to establish closer links between Psychology Faculties in Belgium. Organizing some sort of course/training for PhD students at all universities in Belgium. Start a Young Academy consisting mainly of post docs and membership would only last 4 years at the most.

[b] Meeting of November 14th, 2011:

- Marc Brysbaert and Steven Majerus have been invited as associate members of the committee in their functions of President and Past-President of the Belgian Association for Psychological Science. Both have accepted in the invitation.

- “Social Brain” symposium (follow-up) and new symposia. The meeting is a great success, with about 80 participants and many excellent international speakers. The committee congratulates F. Van Overwalle. Concerning the next symposium, to be organized in 2013, proposals are solicited from committee members and should be sent to the secretary by February 29th, 2012 so that they can be discussed during our next meeting. In general, the symposia should be co-organized by a representative from the French-speaking community and from Flanders, so that funding can be solicited from as many institutions as possible. The committee discusses the possibility of organizing a symposium next year to celebrate the retirement of G. d'Ydewalle.
- Initiative to establish closer links between Psychology Faculties in Belgium. The proposals discussed during the last meeting have not been forwarded to the committee so far. G d'Ydewalle will forward the proposal. The proposal by A. Vandierendonck will also be forwarded as soon as possible. One possibility is to organize a training session on writing scientific articles and on submission procedures. Another possibility is to organize something on statistics. In both cases, the idea is to get the program approved by all psychology departments.

3. General Assembly of the Scientific Union

The Scientific Union will meet in 2012 in Cape Town, South Africa. Pr. Bernard Rimé will act as representative of the National Committee on this occasion.

4. Other activities in 2011

The committee organizes bi-annual symposia. The last symposium was organized by Committee member Pr. Van Overwalle and was titled “The Social Brain”. The event took place on November 14th, 2011, at the Academy. It attracted about 80 participants and was generally considered to be a success. Additionally, the committee also assists, every year, the Belgian Association for Psychological Science in selecting the recipient of its “Best Thesis Award”.

5. Future Perspectives

The next symposium will be organized in 2013. Possible themes will be considered during 2012. The Committee is additionally considering launching further initiatives to establish closer links between Faculties of Psychology and Educational Sciences in Belgium. Finally, it continues to collaborate with the International Union for Psychological Science.

NATIONAL COMMITTEE FOR RADIO-ELECTRICITY (URSI)

1. Introduction, mission, goals

The activities of the Belgian URSI Committee are related to the domain of radio-electricity. The main goal of the committee is to promote and in some extend to coordinate for Belgium the scientific activities of its members in this field of interest. The committee meets regularly at the Academy and organizes yearly, in collaboration with the URSI committee of Netherlands a 'URSI Forum' where young doctorandi have the opportunity to present their researches and to exchange their scientific and technical experience. Effective members of the committee are representing Belgium in the different scientific commissions of URSI.

2. Meetings of the Committee

The Belgian URSI Committee has met four times in the facility of the Academy: on 01/02/2011, 09/06/2011, 28/09/2011 and 08/12/2012.

[a] 1 February 2011:

Dr. LAMY (Belgian Space Institute for Space Aeronomy) gave a lecture entitled "*BRAMS: a new facility to detect and characterize meteors*". After his presentation the administrative part of the meeting went on with as main issue the GASS 2011 Election of URSI officers & vice-chairmen of URSI commissions.

[b] 9 June 2011:

Dr DRUYTS (RMA) gave a lecture entitled "*Analysing the Effect of the Environment on Electromagnetic Induction Sensors*". After his presentation, some communications were done by the board about GASS 2011 in Istanbul, the country is a candidate for the organization of the next edition of the GASS and at last the nomination of Prof Daubechies, proposed by the committee, for the Booker Gold medal.

Then the vice-president gave a short debriefing about the 2011 edition of the Benelux URSI forum that took place on 27 April in Noordwijk, The Netherlands. Finally, some ideas were exchanged in view of the election of a new board for the Belgian URSI committee at the coming fall meeting.

[c] 28 September 2011:

Exceptionally, there was no scientific part during this meeting, by lack of time to handle the points at the agenda for the administrative part. An extended reporting on GASS 2011 in Istanbul was made by the president, E. SCHWEICHER and P. VAN DAELE, assistant secretary of URSI, made also some communications about a few resolutions taken by URSI during this international event. Then the election of new effective, associate and the president and vice-president took place.

[d] 8 December 2011

The scientific part was given by prof. Yves Rolain. He explained how to simplify rather intensive computation on nonlinear devices in his talk: *"Using the Best Linear Approximation to characterize nonlinear RF and microwave systems"*. A final series of elections, including the new secretary and vice secretary, a new effective and a new associate member took place, as well as 2 honorary members, Prof. Erik Stijns (VUB) and Antoine Van de Capelle (KU Leuven).

3. General Assembly of the Scientific Union

Belgium is supporting the candidature of China for the organization of the GASS 2014.

4. Other activities

The Dutch committee organized the fifth edition of the Benelux URSI forum on 27 April at Noordwijk. There were about fifty participants among which M. LEFEUVRE, president of URSI and M. LAGASSE, secretary general of URSI. It is worthwhile to note that the laureate of the best paper contest was J.W. DEBLESER (KUL). The presentation by Dr LAMY about BRAMS was received very positively by Dutch colleagues who made a proposal for collaboration on that topic.

5. Future perspectives

This year, the BENELUX URSI forum will be organized by the team of the University of Gent, more in particular the URSI members Hendrik Rogier, Peter Van Daele and Ann Franchois and their respective teams.

NATIONAL COMMITTEE SCOPE-IGBP

1. Introduction, mission, goals

The committee represents Belgium in SCOPE (Scientific Committee on Problems of the Environment) and IGBP (International Geosphere/Biosphere Program of ICSU). General information on these international programs is annexed. The national committee stimulates the participation of Belgian scientists in SCOPE and IGBP projects. It also organizes activities (workshops, conferences, preparation of research plans, etc.) in Belgium in the domains covered by these programs.

2. Meetings of the Committee

Unspecified.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011.

4. Other activities

[a] Participation to meetings of BEES (Belgian Ecosystem Services), a BELSPO research program, which originated from workshops organized by the committee in previous years?

[b] Organization of a scientific meeting on the future of the Soignes/Zonien Forest, in cooperation with the forest services of the three Regions; the meeting took place on 29 November 2011, with over 200 persons in attendance; Belgian, Danish, French and German scientists presented the latest research on the state and management of beech forests and discussed recommendations for the future management of the Soignes/Zonien Forest, taking account of environmental and societal changes; the proceedings of the meeting will be published in 2012.

[c] On a request from the RDC (Congo/ Kinshasa) national committee for IGBP, it was agreed that the committee would pay the membership fee of the RDC to IGBP for year 2012

5. Future perspectives

[a] A final conference for the BEES program is planned for 27 April 2012 with the aim of bringing together the results of the seven work packages, drawing conclusions and identifying future

research priorities for the evaluation of services rendered to society by nature, biodiversity and ecosystems, as an input to policy making in the context of sustainable development.

[b] Participation in the “Planet under Pressure” scientific conference organized by ICSU/IGBP on 26-29 March 2012 in London, in preparation of the RIO+20 UN Conference on Sustainable Development.

NATIONAL COMMITTEE FOR SOIL SCIENCES

1. Introduction, mission, goals

The NCSS was set up in 2002, following long lasting activities of the Soil Science Society of Belgium (started in 1924) and with the purpose to bring soil science to the attention of the broader public with particular focus on the young people. This original mission of SSSB/NCSS is more relevant now than it has even been - soil and soil suitability comes daily in the media and in the public debate: trade-offs between food production versus agro-fuels, the preservation of our pristine soils, the conservation of our soil heritage, the rehabilitation of marginal lands and the remediation of polluted soils. The NCSS is the representative organization for all soil scientists active in Belgium and is the official Belgian representative into the International Union of Soil Sciences (IUSS)

2. Meetings of the committee

- 23/02: NCSS board – RASAB; new president: Bas van Wesemael, new deputy president: Martine Swerts; new board member: Karen Vancampenhout
- 23/02: Day of the Young Soil Scientists + IUSS laudatio Guy Smith award for Rudi Dudal, at RASAB
- 12/10: excursion to West Vlaanderen Moeren polders, Blankaart (Organization: Carole Ampe)
- 14/06: excursion to Bosvoorde Zonien – Soignes forest, visit to soil profiles for geo-archeological reconstruction (Organization: Roger Langohr)
- 17/06: BAG excursion to Schelde Polders (Organization: Toon Smets)
- 07/12: NCSS board - RASAB
- 07/12: Thematic Day: Saving our soil information in the digital era, RASAB

Main conclusions:

The NCSS uses to organize 5 activities per year:

- 1) Day of the Young Scientists in February
- 2) A field excursion in May or September
- 3) a Thematic Day in December
- 4 & 5) two boards (one in February, together with the young scientists, one in December, together with the Thematic Day).

In 2011, an international excursion to Italian Piemonte had to be cancelled, and has been replaced by two short excursions in Belgium; organizing excursions far from Belgium seems more complicated, since the number of participants has to be large enough to reduce the costs.

The Day of the Young Scientists was attended by 40 people and the Thematic Day by 32 people, which is a low record, compared to previous years, maybe due to the railroad general strike.

3. General Assembly of the Scientific Union

Dates: IUSS mid-term meeting, Jeju Korea, June 3 - 8

Main conclusions: J. Deckers is member of the IUSS standing committee, and in the Executive Committee of the IUSS Working Group WRB on international soil classification. He is also chairing the Ad-Hoc Selection Committee of the bi-annual IUSS-Guy Smith Prize; J. Chapelle is member of the IUSS structure and statutes standing committee.

4. Other activities

[a] Guy Smith award for Prof. Rudi Dudal

Goal: during his long and fruitful career, Prof. Dudal has served the global soil science community as prominent soil scientist, recognized KU Leuven Prof, high rank FAO officer and IUSS general secretary; he has been awarded the prestigious IUSS Guy Smith medal from the IUSS board; the ceremony took place in RASAB in presence of the IUSS representatives.

Attendance: 40

Building up of the SSSB/NCSS website through UGent

5. Future perspectives

As each year, NCSS will organize 5 core activities:

- 2 board meetings (February & December)
- Day of the Young Scientists (22/02/2012)
- Field excursion to GD Luxemburg (09/05/2012)
- Thematic Day in December: theme to be determined at the board in February

In addition, other activities will be under the NCSS umbrella:

- IUSS Midterm meeting – Jeju – Korea, (3 – 8/06/2012); J. Chapelle will represent the NCSS

- Global Soil Partnership: initiative by FAO to harmonize global soil data: E. Van Ranst will be the official contact point.
- Eurosoils conference, Bari, Italy, July 2012: several members will attend. S. Deckers will be the NCSS official representative for EU meetings.
- EGU conference, Vienna, April 2012: will be attended by many SSSB members

NATIONAL COMMITTEE FOR SPACE RESEARCH

1. Introduction, mission, goals

The National Committee of Space Research represents the Belgian scientists who work in the domain of space research in the Committee on Space Research (COSPAR).

2. Meetings of the Committee

The committee met on September 13, 2011, with as main agenda item to organize its restructuration. The plan is to ask the directors and research responsables for the various Belgian universities and research institutes to designate candidates for membership, taking into account the various fields covered by COSPAR and the necessity to involve younger scientists. In addition to the tasks related with the COSPAR meetings, the committee sees it as its task to reflect on and give advice about the different scientific disciplines of the space sector and to foster coordination of the diverse activities.

3. General Assembly of the Scientific Union

No Assembly of the Scientific Union in 2011

4. Other activities

The main task of the committee is to organize the Belgian participation in COSPAR, which will hold its 39th Scientific Assembly in Mysore, India, from 14 to 22 July 2012. The COSPAR Council meetings will take place on 14 and 22 July. Dr. Valentina Shetsova (ULB) is a member of the Scientific Committee of the Scientific Assembly and is mains scientific organizer of a session, Prof. C. Waelkens and dr. B. Vandenbussche (KU Leuven) are main scientific organizers of two other sessions.

INTERNATIONAL UNIONS

The existence of a national committee is subject to the existence of an International Scientific Union or scientific body affiliated to ICSU (scientific committees, special committees, etc.) concerning the same scientific subject.

1. Scientific Committee on Antarctic Research (SCAR): www.scar.org
2. International Astronomical Union (IAU): www.iau.org
3. International Union for Quaternary Research (INQUA): www.inqua.org
4. International Union of Biochemistry and Molecular Biology (IUBMB): www.iubmb.org
5. International Union of Biological Sciences (IUBS): www.iubs.org
6. International Union for Physical and Engineering Sciences in Medicine (IUPESM): www.iupesm.org
7. International Union of Pure and Applied Biophysics (IUPAB): www.iupab.org
8. International Union of Pure and Applied Chemistry (IUPAC): www.iupac.org
9. International Union of Crystallography (IUCr): www.iucr.org
10. International Union of Geodesy and Geophysics (IUGG): www.iugg.org
11. International Geographical Union (IGU): www.igu-net.org
12. International Union of Geological Sciences (IUGS): www.iugs.org
13. International Union of History and Philosophy of Science (IUHPS), Division of History of Science and Technology (IUHPS-DHST) & Division of Logic, Methodology and Philosophy of Science (IUHPS-DLMPS): <https://sites.google.com/a/dhstweb.org/www/> & <http://www.dlmps.org>
14. International Mathematical Union (IMU): <http://www.mathunion.org>
15. International Union of Theoretical and Applied Mechanics (IUTA): www.iutam.net
16. International Union of Microbiological Societies (IUMS): www.iums.org
17. Scientific Committee on Oceanic Research (SCOR): www.scor-int.org
18. International Union of Pharmacology (IUPHAR): www.iuphar.org
19. International Union of Physiological Sciences (IUPS): www.iups.org
20. International Union of Psychological Science (IUPsyS): www.iupsys.net
21. International Union of Pure and Applied Physics (IUPAP): www.iupap.org
22. International Union of Radio Science (URSI): www.ursi.org
23. Scientific Committee on Problems of the Environment (SCOPE): www.scopenvironment.org/

- 24. International Geosphere-Biosphere Programme (IGBP): www.igbp.net
- 25. International Union of Soil Sciences (IUSS): www.iuss.org
- 26. Committee on Space Research (COSPAR): www.cosparhq.cnes.fr