



ACADÉMIE ROYALE DES SCIENCES, DES LETTRES ET DES BEAUX-ARTS DE BELGIQUE



KONINKLIJKE VLAAMSE ACADEMIE VAN BELGIË VOOR WETENSCHAPPEN EN KUNSTEN

The ROYAL ACADEMIES FOR SCIENCE AND THE ARTS OF BELGIUM

RASAB vzw/asbl

The Royal Academies for Science and the Arts of Belgium - RASAB vzw/asbl

RASAB

ANNUAL REPORT 2016

www.rasab.be

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THE ROYAL ACADEMIES FOR SCIENCE AND THE ARTS OF BELGIUM

1. Introduction

The association 'The Royal Academies for Science and the Arts of Belgium' (vzw/asbl) was founded in 2001 by the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique (ARB)¹ and the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten (KVAB)². The association is located in the old royal stables of the Palace of Academies in Brussels.

The Royal Academies of Belgium work to promote science and art in Belgium. In order to meet this demand, the Academies organize scientific and cultural activities, they try to promote inter-university cooperation in Belgium, they provide representation in international and European organizations, they offer a platform for researchers to formulate recommendations to the government, industry, education and research.

RASAB is responsible for the coordination of the activities of the two Academies at a national and international level, as well as for the national scientific committees and the representation of Belgium in the federation of Academies such as EASAC, ALLEA, etc.

The statutes of RASAB were published in the *Moniteur Belge / Belgisch Staatsblad* of 19 April 2001.

In 2015 RASAB faced a strong reduction of its governmental support. Because of this, some strategic decisions were made:

- An analysis was made of the national committees and RASAB's memberships in international unions. The following memberships were discontinued: SCOPE, IGBP, WCRP, SCOSTEP, COSPAR.
- The liaison office has been phased out. From May 2016, this activity will be stopped completely.

2. Governance

The General Assembly is composed by the Chairmen, the Permanent Secretaries and one representative for each of the four classes of the academies, for a total of 12 members.

¹ www.academieroyale.be

² <u>www.kvab.be</u>

The annual presidency of RASAB is held alternately by the chairman of the academies. In 2016 RASAB was chaired by Charles Joachain, President of the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique.

Board of Directors 2016

ARB	KVAB	
Charles Joachain	Hubert Bocken	
Chair	Chair	
Hervé Hasquin	Freddy Dumortier	
Permanent Secretary	Permanent Secretary	
General Assembly 2016		
ARB	КVАВ	
Charles Joachain	Hubert Bocken	
Chair	Chair	
Hervé Hasquin	Freddy Dumortier	
Permanent Secretary	Permanent Secretary	
Jean Mawhin	Niceas Schamp	
Classe des Sciences	Klasse van de Natuurwetenschappen	
Monique Boussart Classe des Lettres et des Sciences morales et politiques	Els Witte Klasse van de Menswetenschappen	
Chevalier Philippe Samyn	André Laporte	
Classe des Arts	Klasse van de Kunsten	
Jean-Pierre Contzen	Dirk Frimout	
ClasseTechnologie et Société	Klasse van de Technische Wetenschappen	

NATIONAL SCIENTIFIC COMMITTEES

1. Introduction

The missions of the Belgian scientific committees are the promotion and coordination of various scientific disciplines in Belgium, mainly seen in an international context.

The conditions for the foundation of a National Committee is the existence of an international scientific union which is a member of ICSU or a member of a scientific institution of ICSU (scientific committees, special committees, etc.) in 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, gathered in RASAB which is responsible for the financial and logistic support of the National Committees, as well for its daily activities, as for the organisation of scientific events by the National Committees in the Palace of the Academies.

2. Annual Activity Reports

Each year, the Belgian scientific committees publish their annual activity reports with the help of RASAB. For clarity, these reports are not directly integrated into the RASAB annual report. They are available in a separate volume downloadable on our website³.

3. List of the National Scientific Committees

- 1) Antarctic Research
- 2) Astronomy
- 3) Biochemistry and Molecular Biology
- 4) Biological Sciences
- 5) Biomedical Engineering
- 6) Biophysics
- 7) Chemistry
- 8) Crystallography
- 9) Geography
- 10) Geodesy and Geophysics
- 11) Geological Sciences

³ www.rasab.be

- 12) Logics, History and Philosophy of Science
- 13) Mathematics
- 14) Mechanics
- 15) Microbiology
- 16) Oceanology
- 17) Psychological Sciences
- 18) Physiology and Pharmacology
- 19) Physics
- 20) Quaternary Research (BELQUA)
- 21) Radio-Electricity
- 22) Soil Science

4. List of the International Scientific Unions

The conditions for the foundation of a National Committee is the existence of an international scientific union which is a member of ICSU or a member of a scientific institution of ICSU (scientific committees, special committees, etc.) in the same scientific discipline. All Belgian national committees are members of one or more international organizations in which they represent Belgium.

•	International Astronomical Union (IAU)	www.iau.org
•	International Geographical Union (IGU)	www.igu-net.org
•	International Federation for Medical and Biological	
	Engineering (IFMBE)	www.ifmbe.org
•	International Mathematical Union (IMU)	www.mathunion.org
•	International Union for Physical and Engineering Sciences	
	in Medicine (IUPESM)	www.iupesm.org
•	International Union for Quaternary Research (INQUA)	www.inqua.org
•	International Union of Biochemistry and Molecular	
	Biology (IUBMB)	www.iubmb.org
•	International Union of Biological Sciences (IUBS)	www.iubs.org
•	International Union of Crystallography (IUCr):	www.iucr.org
•	International Union of Geodesy and Geophysics (IUGG)	www.iugg.org
•	International Union of Geological Sciences (IUGS)	www.iugs.org
•	International Union of History and Philosophy of Science (IUHPS),	
	 Division of History of Science and Technology (IUHPS-DHST) 	

- Division of History of Science and Technology (IUHPS-DHST)
- \circ $\;$ Division of Logic, Methodology and Philosophy of

	Science (IUHPS-DLMPS)	www.dlmps.org
•	International Union of Microbiological Societies (IUMS)	www.iums.org
•	International Union of Pharmacology (IUPHAR)	www.iuphar.org
•	International Union of Physiological Sciences (IUPS)	www.iups.org
•	International Union of Psychological Science (IUPsyS)	www.iupsys.net
•	International Union of Pure and Applied Biophysics (IUPAB)	www.iupab.org
•	International Union of Pure and Applied Chemistry (IUPAC)	www.iupac.org
•	International Union of Pure and Applied Physics (IUPAP)	www.iupap.org
•	International Union of Radio Science (URSI)	www.ursi.org
•	International Union of Soil Sciences (IUSS)	www.iuss.org

International Union of Theoretical and Applied Mechanics (IUTAM) <u>www.iutam.net</u>

INTERNATIONAL RELATIONS

1. ALL European Academies – ALLEA⁴

a. Introduction

ALLEA, the federation of All European Academies, was founded in 1994 and currently brings together 55 Academies in more than 40 countries from the Council of Europe region. Member Academies operate as learned societies, think tanks and research performing organisations. They are self-governing communities of leaders of scholarly enquiry across all fields of the natural sciences, the social sciences and the humanities. ALLEA therefore provides access to an unparalleled human resource of intellectual excellence, experience and expertise.

Independent from political, commercial and ideological interests, ALLEA's policy work seeks to contribute to improving the framework conditions under which science and scholarship can excel. Jointly with its Member Academies, ALLEA is in a position to address the full range of structural and policy issues facing Europe in science, research and innovation. In doing so, it is guided by a common understanding of Europe bound together by historical, social and political factors as well as for scientific and economic reasons.

b. Belgian representation

General Assembly

Hubert Bocken (KVAB) attended the General Assembly 2016 of ALLEA (18 and 19 May, Vienna). He was elected as a member of the ALLEA Board for the period 2016-2018.

Working Groups

Els Van Damme (KVAB) is the Belgian representative in the Permanent Working Group *Science and Ethics*. This working group held meetings in February 2016 in Stockholm, in October 2016 in Oslo and in December 2016 in Amsterdam.

Didier Viviers (ARB) has been chosen to be the Belgian representative in 9th EU RTD Framework Programme Working group. The work of this committee will start in 2017.

⁴ <u>http://www.allea.org</u>

C. Miscellaneous

ALLEA published or supported 2 statements in 2016:

- ALLEA new statement: Patent-Related Aspects of CRISPR-Cas Technology (July 2016)⁵;
- ALLEA supported the European Academies' Statement: Science is Global⁶ published at the occasion of the ESOF conference in Manchester 2016 in which Europe's Academies celebrate the value of science and research

On 13 December 2016, Presidents of the five European academy networks that make up the SAPEA project consortium joined the Director-General for Research and Innovation, Dr Robert-Jan Smits, for the official launch of SAPEA in Brussels. More than 100 academies across Europe will contribute to the European Scientific Advice Mechanism (SAM), which provides independent, transdisciplinary and evidence-based scientific advice to the European Commission.

2. European Academies Science Advisory Council – EASAC⁷

a. Introduction

EASAC - the European Academies Science Advisory Council - is formed by the national science academies of the EU Member States to enable them to collaborate with each other in providing advice to European policy-makers. It thus provides a means for the collective voice of European science to be heard. Its mission reflects the view of academies that science is central to many aspects of modern life and that an appreciation of the scientific dimension is a pre-requisite to wise policy-making. This view already underpins the work of many academies at national level. With the growing importance of the European Union as an arena for policy, academies recognise that the scope of their advisory functions needs to extend beyond the national to cover also the European level. Here it is often the case that a trans-European grouping can be more effective than a body from a single country.

The academies of Europe have therefore formed EASAC so that they can speak with a common voice with the goal of building science into policy at EU level. Through EASAC, the academies work together to provide independent, expert, evidence-based advice about

⁵ http://www.allea.org/european-academies-statement-science-global/

⁶ http://www.allea.org/wp-content/uploads/2016/08/Joint-statement-Science-is-Global-25-July-2016.pdf

⁷ http://www.easac.eu

the scientific aspects of public policy to those who make or influence policy within the European institutions. Drawing on the memberships and networks of the academies, EASAC accesses the best of European science in carrying out its work. Its views are vigorously independent of commercial or political bias, and it is open and transparent in its processes. EASAC aims to deliver advice that is comprehensible, relevant and timely. EASAC covers all scientific and technical disciplines, and its experts are drawn from all the countries of the European Union. It is funded by the member academies and by contracts with interested bodies. The expert members of project groups give their time free of charge. EASAC has no commercial or business sponsors. EASAC's activities include substantive studies of the scientific aspects of policy issues, reviews and advice about policy documents, workshops aimed at identifying current scientific thinking about major policy issues or at briefing policymakers, and short, timely statements on topical subjects. The EASAC Council has 28 individual members - highly experienced scientists nominated one each by the national science academies of every EU Member State that has one, the Academia Europaea and ALLEA. It is supported by a professional secretariat based at the German Academy of Sciences Leopoldina. The Council agrees the initiation of projects, appoints members of project groups, reviews drafts and approves reports for publication.

b. Belgian representation

Council

Freddy Dumorty (KVAB) is the Belgian representative in the EASAC's Council.

Steering panels

Belgian Academies are represented in 2016 in 2 steering panesl:

- Energy Steering Panel: Jan Kretzschmar (KVAB) is the Belgian representative in the EASAC's Energy Steering Panel. He attended a meeting of this panel in Oslo in May 2016.
- Smart Villages Reference Group: Jan Kretzschmar (KVAB) is also the Belgian representative in the EASAC's Smart Villages Reference Group. He attended a meeting of this panel in Schipol in April 2016.

Working groups

Belgian Academies are represented in 2016 in 4 working groups:

Electricity Storage: Jan Desmet (UGent) and Willem D'Haeseleer (KVAB);

- Sustainable Forests (Forestry): Reinhart Ceulemans (KVAB);
- **Circular Economy**: Egbert Lox (KVAB);
- Genome Editing: Joseph Martial (ARB).

EASAC published 4 reports and statements in 2016:

- Marine sustainability in an age of changing oceans and seas;
- Greenhouse gas footprints of different oil feedstocks;
- EASAC and FEAM Joint Statement of the Presidents on Antimicrobial Resistance;
- Circular Economy: Indicators and Priorities for Critical Materials.

c. RASAB hosting

RASAB helped in 2016 to organize several meetings of EASAC's steering committees and working groups. Here is an overview of the meetings in Brussels, for which RASAB is partly responsible for the organization:

- On February 12rd, EASAC Board meeting;
- On February 16-17, Working Group on Sustainable Forests (Forestry) meeting;
- On April 11-12, IAP-EASAC Working Group on "Food and nutrition security and agriculture" meeting;
- On May 5th, EASAC Working Group on "Circular Economy" meeting;
- On June 29th, EASAC Working Group on "Genome Editing" meeting;
- On October 17th, EASAC Working Group on "Genome Editing" meeting;
- On October 25th, EASAC Steering Panel on "Energy" meeting;
- On October 27th, IAP-EASAC Working Group on "Food and nutrition security and agriculture" meeting;
- On November 24th, EASAC Biosciences Steering Panel Meeting;
- On November 30th, launch of the EASAC reports on "Circular Economy".

3. International Human Rights Network of Academies and Scholarly Societies⁸

a. Introduction

The International Human Rights Network of Academies and Scholarly Societies is a worldwide network of about 60 academies that assists scientists, scholars, engineers, and health

⁸<u>http://www7.nationalacademies.org/humanrights/CHR_044113.htm</u>

professionals around the world who are subjected to severe repression solely for having nonviolently exercised their rights as promulgated by the Universal Declaration of Human Rights (UDHR). It also promotes human rights consciousness-raising and institutional commitment to human rights work among national academies and scholarly societies worldwide.

b. Belgian representation

To answer to the demands set by the network, the Royal Academies of Belgium have created a committee: the Committee for the Free Practice of Science and Arts.

Composition

ARB	KVAB
Jean-Marie Frère	Irina Veretennicoff
Classe des Sciences	Klasse van de Natuurwetenschappen
Paul Smets Classe des Lettres et des Sciences morales et politiques	Marie-Claire Foblets Klasse van de Menswetenschappen
Pierre Bartholomée	Willem Elias
Classe des Arts	Klasse van de Kunsten
Carine Doutrelepont	Derrick Gosselin
ClasseTechnologie et Société	Klasse van de Technische Wetenschappen

4. InterAcademy Partnership – IAP⁹

IAP is a global network of the world's science academies, launched in 1993.

Its primary goal is to help member academies work together to advise citizens and public officials on the scientific aspects of critical global issues.

IAP is particularly interested in assisting young and small academies in achieving these goals and, through the communication links and networks created by IAP activities, all academies will be able to raise both their public profile among citizens and their influence among policy makers.

⁹http://www.interacademies.net

5. ICSU¹⁰

a. Introduction

The International Council for Science is a non-governmental organization with a global membership of national scientific bodies (121 members) and international scientific unions (30 members). All National Committees are member of one of these international scientific unions.

The mission of ICSU is to strengthen international science for the benefit of society. To do this, ICSU mobilizes the knowledge and resources of the international science community to:

- Identify and address major issues of importance to science and society.
- Facilitate interaction amongst scientists across all disciplines and from all countries.
- Promote the participation of all scientists—regardless of race, citizenship, language, political stance, or gender—in the international scientific endeavour.
- Provide independent, authoritative advice to stimulate constructive dialogue between the scientific community and governments, civil society, and the private sector.

Activities focus on three areas: International Research Collaboration, Science for Policy, and Universality of Science.

b. Belgian representation

Christian Vandermotten is the Belgian representative to ICSU. In 2016, he attended to the following meetings:

- Annual Meeting of ICSU European Members, Dublin, 15-16 September;
- Extraordinary General Assembly, Oslo, 24 October 2016, as part of a joint General Assembly with the International Social Science Council (ISSC) concerning the merger of ICSU and ISSC.

¹⁰http://www.icsu.org

6. Union Académique Internationale - UAI¹¹

a. Introduction

The UAI is the global organization of national academies in the fields of the humanities and social sciences. Its aims are to initiate, recognize, foster and fund basic long-term international research projects. Created in 1919 in Paris with a general secretariat established in Brussels, the UAI comprises at the moment more than a hundred academies from 63 countries from all continents.

Recognizing that many substantial projects in humanities and social sciences cannot be realized within a short time span, the UAI prides itself on being willing to support significant long-term projects. The UAI already sponsored more than 3,000 books. Many of them are fundamental reference tools, such as dictionaries, encyclopaedias, and text editions, some of which are disseminated on the web. The UAI is constantly launching new international projects, most recently the transformation of Mediterranean cities throughout history. Projects adopted by the UAI are expected to be based on cooperation between several national academies. In order to achieve its aims, the UAI relies on funding from private and public sources.

The UAI advocates for the role of the humanities and the social sciences in a changing world.

b. Belgian representation

General Assembly

The next General Assembly is scheduled in October 2017 at the seat of the Japan Academy (Tokyo).

Board

Pierre Jodogne (ARB) is a member of the Board of the Union Académique Internationale. He attended the two boards meetings: in Paris (February 2017) and in Warsaw (September 2017).

¹¹http://www.uai-iua.org

Projects¹²

As founder members, the Belgian Academies and their members are involved in many projects patronized by the UAI:

- Alchimic texts (Project 2): The project is directed by the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique (Prof. Anne Tihon, UCL, is the director of the project). The last volume of this project has been published in 2011. Two volumes are in preparation.
- Aristoteles Latinus, Corpus Philosophorum MediiAevi (Project 9.2): Prof. Carlos Steel (KVAB) is the International Director of the project. Two volumes have been published in 2011. Several volumes are in preparation. A volume has to be published in 2016.
- Avicenna Latinus, Corpus Philosophorum MediiAevi (Project 9.3): The project is directed by the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Prof.Hervé Hasquin (ARB), Prof. André Allard (ARB) and Prof. Pierre Jodogne (ARB) are members of the board of this project. One volume is in preparation.
- Corpus Vitrearum (Project 16): Prof. Yvette VandenBemden (ARB) and Prof. Anna Bergmans (KVAB) are members of the Belgian Committee. One volume of the Belgian collection has been published in 2013. A other is in preparation.
- Lexicon Iconographicum Mythologiae Classicae LIMC & Thesaurus Cultus et Rituum Antiquorum - ThesCRA - (Project 28): Prof. Jean-Charles Balty (ARB) is a member of the responsible committee of this project. The last volume (tome VIII) of this thesaurus has been published in 2012.
- Sylloge Nummorum Graecorum SNG (Project 26): Prof. François de Callataÿ (ARB) is the director of the Belgian Committee.
- Corpus des Astronomes Byzantins (Project 41): The project is directed by the Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique. One volume has been published in 2015 and a other is in preparation.
- Iusti Lipsi Epistolae (Project 70): The project is directed by the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten.

 $^{^{\}rm 12}$ This section is updated every two years at the occasion of the UAI General Assemblies where all projects are evaluated.

- Papyrus-Archives. Edition and Studies (Project 72): Prof. Willy Clarysse (KVAB) is the Director of the project. One volume has been published in 2015. Two others are in preparation.
- Corpus Rubenianum Ludwig Burchard (Project 73): Prof. Carl Van de Velde (KVAB) is the Director of the project. One volume has been published in 2015. Six others are in preparation.
- Fontes Inediti Numismaticae Antiquae FINA (Projet 83): Prof. François de Callataÿ (ARB) is the director of the Belgian Committee.

UAI GENERAL SECRETARIAT

Since its foundation in 1919 the Union Académique Internationale has its seat in the Palace of Academies in Brussels. The Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique (ARB) is in charge of the secretariat of the UAI. The Permanent Secretary of the Académie royale de Belgique is de facto the General Secretary of the Union.

By its experience at the international level, RASAB is involved in the organization of activities of the UAI and participates in the management of the General Secretariat of the Union (organization of the meetings, contact with the academy members, website, etc.)

1. Organization of the meetings

In 2016, the UAI held two board meetings:

- Board meeting, held in Paris, from 10 to 12 February 2016, at the invitation of the Institut de France.
- Standing Committee meeting, in Warsaw, from 22 to 23 September 2016, at the invitation of the Instytut Sztuki Polskiej Akademii Nauk.

The UAI decided in 2013 to move from a system of annual general meetings to a general assembly every two years. The next general assembly is scheduled in Tokyo in October 2017.

2. Involvement of RASAB

Mr Laurent Hansen, scientific counsellor of RASAB, attended to all UAI meetings as officer of the General Secretariat. He is responsible, among other things, of the contact with the member academies and their representatives, of the organization of the different meetings general assemblies and conferences, and of the communication through new technologies.

APPENDIXES

LIST OF BELGIAN DELEGATES IN FEDERATIONS OF ACADEMIES (2016)

	André Preumont ARB, Classe Technologie et Société
General Assembly	Hubert Bocken KVAB, Menswetenschappen
Board	Hubert Bocken KVAB, Menswetenschappen
9th EU RTD Framework Programme Working group Working Group	Didier Viviers ARB, Classe des Lettres et Sciences morales et politique.
Science and Ethics Working Group	Els Van Damme KVAB, Klasse Natuurwetenschappen

ALLEA

EASAC

Council	Freddy Dumortier KVAB, Klasse Natuurwetenschappen
Energy	Jan Kretzschmar
Steering Panel	KVAB, Klasse van de Technische Wetenschappen
Smart Villages	Jan Kretzschmar
Reference Group	KVAB, Klasse van de Technische Wetenschappen
Electricity Storage Working group	Willem D'Haeseleer KVAB, Klasse Technische Wetenschappen & Jan Desmet (UGent)

Sustainable Forests	Reinhart Ceulemans
Working group	KVAB, Klasse van de Natuurwetenschappen
Circular Economy	Egbert Lox
Working group	KVAB, Klasse van de Technische Wetenschappen
Genome Editing	Joseph Martial
Working group	ARB, Classe Technologie et Société

Т

ICSU

General Assembly	Christian Vandermotten ARB, Classe des Lettres et des Sciences morales et politiques
EU-ICSU	Christian Vandermotten ARB, Classe des Lettres et des Sciences morales et politiques

UAI

Board	Pierre Jodogne ARB, Classe des Lettres et des Sciences morales et politiques
	Pierre Jodogne ARB, Classe des Lettres et des Sciences morales et politiques
General Assembly	Carlos Steel KVAB, Klasse van de Menswetenschappen
	Carl van de Velde KVAB, Klasse van de Kunsten