

MEDNARODNA AKADEMIJA ZA SISTEMSKE IN KIBERNETSKE ZNANOSTI (IASCYS): UKVARJANJE Z DRUŽBENO ODGOVORNOSTJO

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Povzetek: IASCYS je bila ustanovljena, preden je Mednarodna organizacija za standard ISO objavila svoj ISO 26000 o družbeni odgovornosti in v njem uvedla pojma 'soodvisnost' in 'celovitost'. Z njima in z drugimi podrobnostmi, zlasti s svojim spiskom vrednot/načel, je ISO 26000 postal globalen dokument, ki podpira sistemsko ravnanje, katerega sta Ludwig von Bertalanffy in Norbert Wiener nekoč zagovarjala kot očeta teorije sistemov in kibernetike. To povezavo je dokazal tudi prvi raziskovalni program IASCYS, ki ga je vodil Matjaž Mulej in je aktiviral 70 avtorjev iz 30 držav. Tako je IASCYS prikazala svojo vlogo povezovalke v mednarodni znanosti. Tukaj predstavljamo IASCYS.

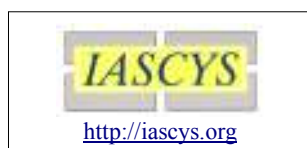
Ključne besede: kibernetika, IASCYS, IFSR, sistemsko ravnanje, teorija sistemov, UES, WOSC

THE INTERNATIONAL ACADEMY FOR SYSTEMS AND CYBERNETIC SCIENCES: INVOLVEMENT IN SOCIAL RESPONSIBILITY

Abstract: The IASCYS was established before the International Standards Organization ISO published its ISO 26000 on social responsibility and introduced in it the notions of 'interdependence' and 'holism'. With them and the other details, especially its list of values/principles, ISO 26000 became a global document supportive of systemic behavior, which Ludwig von Bertalanffy and Norbert Wiener used to advocate as fathers of the systems theory and cybernetics. This link was also proved by the first research program of IASCYS, which was chaired by Matjaz Mulej and activated 70 authors from 30 countries. Thus IASCYS demonstrated its role of a connector in international science. Here IASCYS is presented.

Key words: Cybernetics, IASCYS, IFSR, systemic behavior, systems theory, UES, WOSC

What is the IASCYS?



The IASCYS (The International Academy for Systems and Cybernetic Sciences) was initially established by IFSR (The International Federation for Systems Research <http://ifsr.org>), but it is now open to all *“organizations covering or applying systems theories and cybernetics around the world”* (article added to the IFSR’s decision on establishment of IASCYS in 2010 and passed in 2012 http://en.wikipedia.org/wiki/International_Federation_for_Systems_Research). The IFSR current President is Garry Metcalf. The IFSR publishes 2 times a year a report on its activities in its online newsletter, whose editor is the IFSR Secretary General, currently Gerhard Chroust. After a 2 years round of thinking and discussion (first IFSR board of trustees session, 26 **March 2008**), the Academy was founded by the IFSR in **April 2010**, the 7th, in Vienna (Austria). The founding members were: Matjaz Mulej (Slovenia) as President, Jifa Gu (PR China) and Ranulph Glanville (UK) as Vice-Presidents, Pierre Bricage (France) as Secretary General, Guangya Chen, Shouyang Wang and Jiuping Xu (PR China), Charles François and Enrique Herrscher (Argentina), Kyoichi Jim Kijima and Yoshiteru Nakamori (Japan), Andrej Wierzbicki (Poland) and Robert Vallée (France), also President of WOSC (<http://wosc.co>).

The IFSR is a federation of national Societies (like the American Society for Cybernetics ASC, the Systems Engineering Society of China, or the Slovenian Society for Systems Research) and international societies (like the

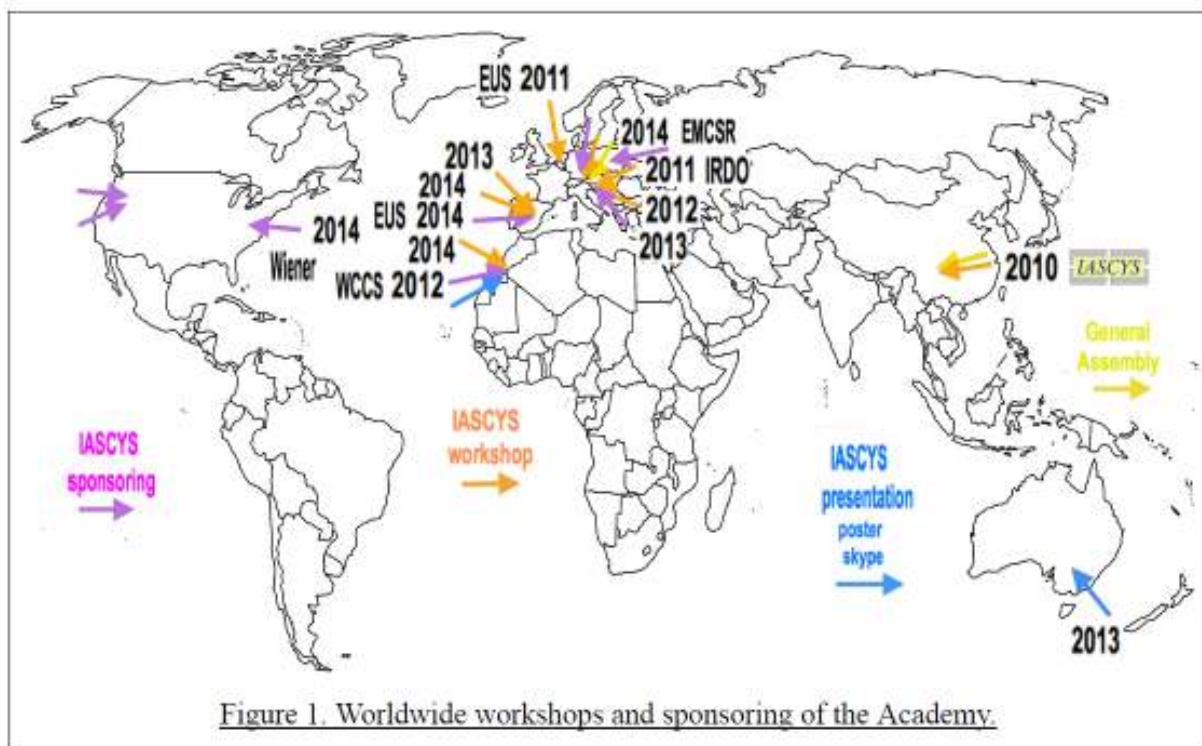
International Council on Systems Engineering INCOSE, the International Society of Knowledge and Systems Science ISKSS and the International Society for the Systems Sciences ISSS). A half of the Societies are from European countries (Austria, Belgium, Bulgaria, Croatia, France, Germany, Great Britain, Greece, Ireland, Italy, Nederland, Slovenia, Spain, for example). But, because of the presence of Argentina, Latin-America, Mexican and Spain Societies, the second language is Spanish. But the IFSR is also **a federation of international societies** (International Institute Galileo Galilei, International Institute of Informatics and Systemics, International Council on Systems Engineering, International Society for the Systems Sciences ISSS, World Complexity Science Academy WCSA and others). Indeed, the IFSR is **a federation of associations and federations**. The societies that are the largest in membership are those from Asia (the Chinese, Japanese and Korean Societies). The largest one is the Chinese one. Indeed the first language of IFSR could be Chinese... The Chinese society has more members than the sum of all the others. So the IASCYS first General Assembly took place in **October 2010** in the Popular Republic of China, at Chengdu (Sichuan), with a week-long international meeting [1].

There are also many other national and international associations with contents based on systems theory and cybernetics, that are not formally connected with IFSR. IASCYS is connecting World Organization for Systems and Cybernetics (WOSC) and European Union for Systemics (EUS) and IFSR, the others have not yet decided to cooperate.

The IASCYS - what for?

The Academy has two major missions: - Academic research of course, but also - promotion of education in systems science and cybernetics, not only in higher education, but at all education levels, and to create an auditing process through coordination of the actions of IFSR member associations for a worldwide accepted framework curriculum.

For achieving parts of its first mission, the Academy organizes workshops in top level international research meetings and sponsors the selected ones (figure 1).



In 2014 year the IASCYS sponsored 8 meetings (figure 2): -the 2 ASC (<http://www.asc-cybernetics.org>) and ISSS (<http://iss.org/world>) joint meetings, in Washington (USA), -the biennial EMCSR (<http://emcsr.net>), in Vienna (Austria), -the IRDO (Institute for the Development of Social Responsibility) annual meeting (<http://www.irdo.si>), in Maribor (Slovenia), -the UES-EUS triennial meeting (<http://ues-wosc.com>) in Valencia (Spain), -the biennial WCCS meeting (<http://www.wccs14.org>) in Agadir (Morocco), -the WCSA (<http://www.wcsaglobal.org>), in Budapest (Hungary), - the Wiener World Celebration Conference of the IEEE (<http://21stcenturywiener.org>), in Boston (USA) which is the world largest professional *not-for-profit* association for the advancement of technology (<https://www.ieee.org/>).



Figure 2. 2014 sponsoring activities by IASCYS.

During the 2014 sponsored EMCSR the Academy had a workshop on ***Social and Environmental Responsibility***. Under the leadership of Matjaz Mulej and with the help of Bob Dyck, for the 10 years anniversary of IRDO, a 4 books volume series on Social Responsibility, as an open-to-all research project of IRDO and IASCYS for 4 years, was published by Bentham Science (USA) [4]. Three guest-edited editions of system-science related journals Systems Research and Behavioral Science, Kybernetes, and Systems Practice and Action Research under Matjaz Mulej (and Sonja Sibila Lebe, Anita Hrast and Zdenka Zenko) must be listed, too. During the 2014 EUS-UES congress the Academy had a workshop on Artificial Intelligence.

To achieve parts of the second goal, the Academy organizes, since 4 years, and each 2 years, conjointly with the Bertalanffy Center for the Study of Systems Science (<http://www.bcsss.org>), which a member society of the IFSR, during the European Meeting on Cybernetics and Systems Research (EMCSR, <http://emcsr.net>), in Vienna (Austria), **the Ph.D. day competition** (<http://emcsr.net/calls-2014/calls-for-papers-2014/phd-colloquium-award>) (Figure 3). The first **Ludwig von Bertalanffy young scientist Award** (from BCSSS) was given in 2012, to Jessica Foley (from Trinity College, Dublin, Ireland) [2]. Katri-Liisa Pulkkinen (from School of Engineering, Aalto University, Finland) won the second one in 2014 [3].

Each year, coming from all around the world, a different team of at least 16 benevolent experts in various fields of systems science and cybernetics (from the Academy, from Academic or Engineering fields, from public and private structures) was evaluating the works of only 6 selected competitors from a larger group of applicants (figure 3).

The European Meetings on Cybernetics and Systems Research traditionally focus on the foundations of system thinking across a variety of disciplinary domains and on its possible and intended impact on society and the amelioration of the human condition.

The EMCSR-PhD Colloquium is designed to promote inter- and trans-disciplinary research on various fields amenable to the system sciences as a means of disseminating ideas and concepts to other areas of system thinking and action and/or to support initiatives in system sciences education. The Colloquium invites all original and unpublished contributions to the field for consideration in competition for the prestigious Ludwig von Bertalanffy Young Scientist Award. After a round of selection, each admitted applicant attends all sessions associated with the EMCSR PhD-Day, not only as a speaker but also as a discussant to the contributions of all the other participants.

The Ludwig von Bertalanffy Young Scientist Award focuses on the inter- and trans-disciplinary capabilities of contestants as well as on their ability to incorporate the principle of “unity through diversity” in the content and application of their work. The award recipient is chosen on the basis of their ability to address a broader community of scholars and scientists with research that can also be **understood by interested non-specialists of the field.** The recipient of the award is recognized for **the best integrative trans-disciplinary work presented at the EMCSR PhD Colloquium.**

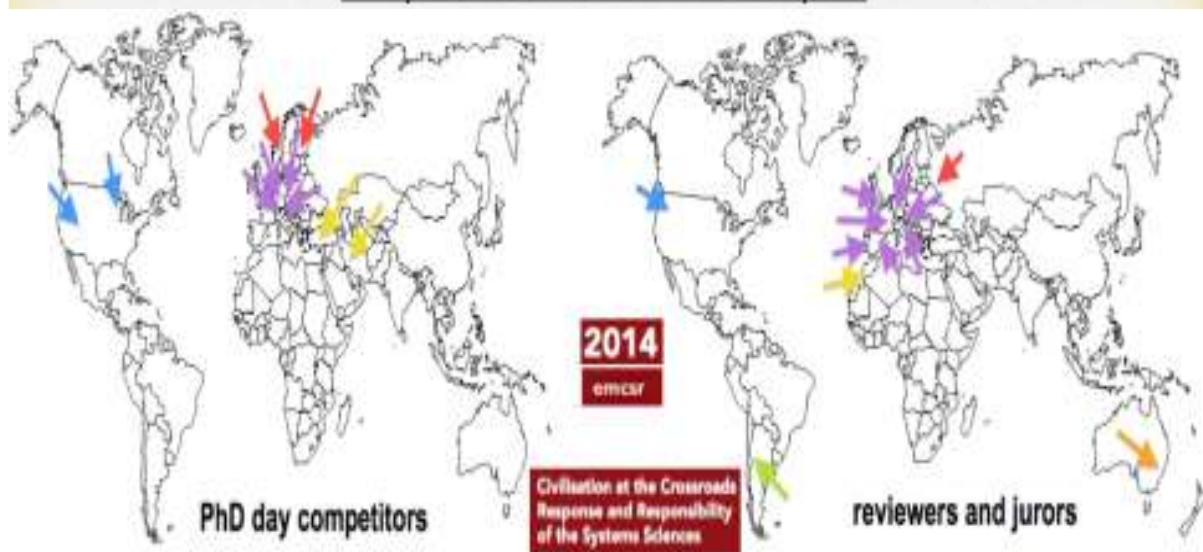


Figure 3. *EMCSR 2014: PhD day world maps of competitors and judges.*

So, according to the two basic notions in **ISO 26000** on Social Responsibility, we can say the Academy undertakes “*a holistic social behavior*” as it has been required by the two establishers of systems theory: Ludwig von Bertalanffy [9], who created General System Theory (GST http://en.wikipedia.org/wiki/Systems_theory) *against over-specialization*, which means “*for holism and wholeness*”, and cybernetics: Norbert Wiener [5] who worked in interdisciplinary teams, which would be impossible without their ethics of *interdependence*. [10]

The Academy as a system: the function and functioning of the Academy.

Until today 35 Academicians have been appointed [6], an half in Europa, a quarter in America, a quarter in Asia and Oceania (figure 4). The academy has no money and there are no fees to pay to be an Academician, but a competitive entrance procedure. No registration fees, no membership dues, no contribution to be appointed, no subscription, all Academicians are elected through a competitive co-optation. Coming from the Academic and engineering worlds, the 35 Academicians are representing a wide variety of applied and fundamental domains (figure 4).

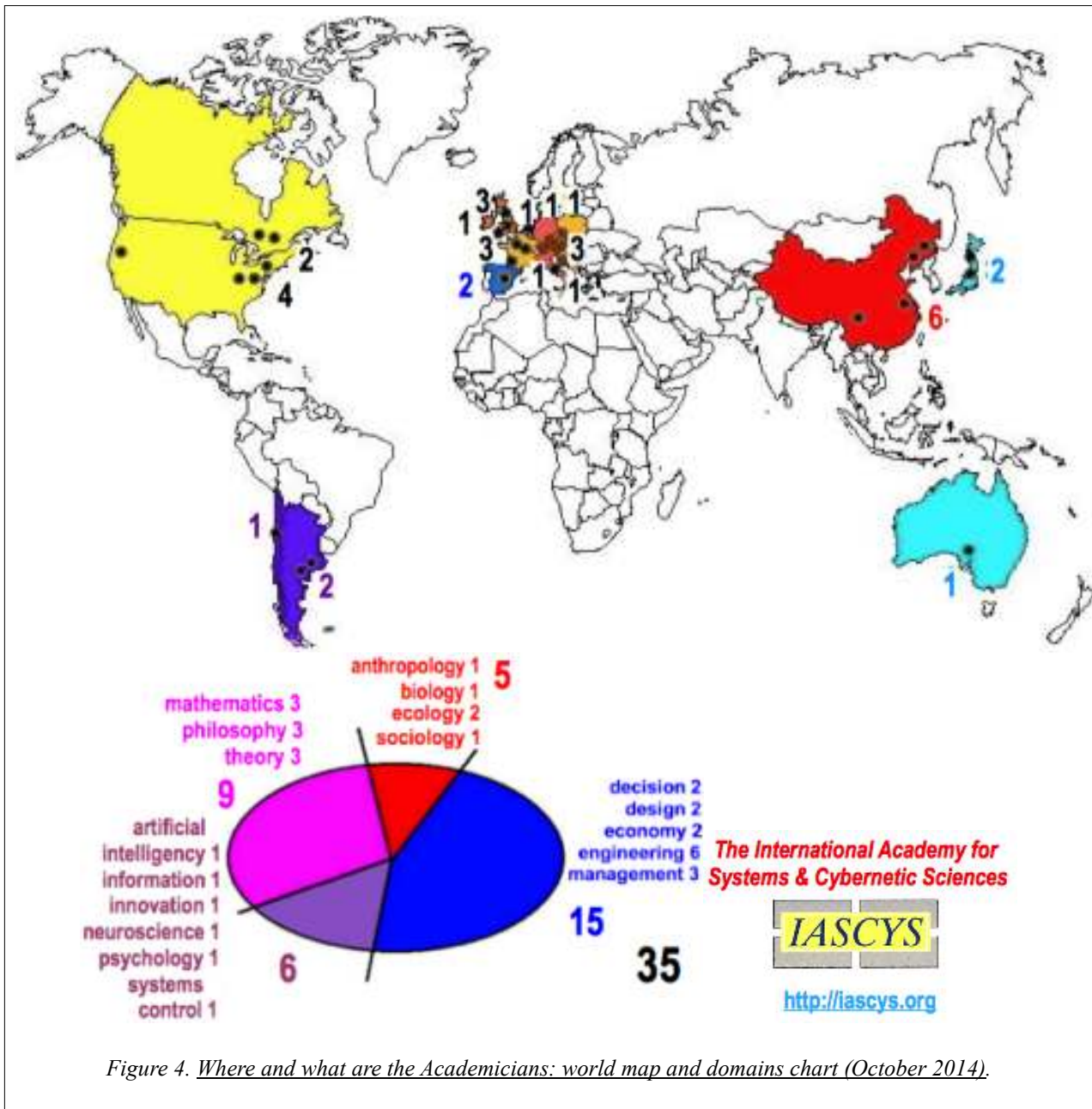


Figure 4. *Where and what are the Academicians: world map and domains chart (October 2014).*

The Procedure for the Appointment of IASCYS Academicians (statutes -28 October 2010-) is the following. A potential candidate for the IASCYS must be a member of an IFSR or similar member Association [7]. The application must be submitted by this member association together with the candidate's credentials and all the required rooting documents, a detailed summary and evaluation score, according to the criteria for membership. No individual candidacies are allowed but only a Society supported one, because the IFSR is a federation of federations [8].

New criteria for IASCYS applicants have been voted by the 2010 first General Assembly, trusting out member societies, but allowing no upper limit on the points and an increase of the recruitment threshold. The 2 last Chinese appointed Academicians quoted more than 200 points in their application scoring [8].

The current Executive Committee of the Academy, was elected unanimously with more than 2/3 of effective votes and for 4 years, during the second General Assembly in April 2014, in Vienna (Austria), with Robert TRAPPL (Austria) as President, Jifa Gu (PR China), Matjaz Mulej (Slovenia) and Ranulph Glanville (UK) as Vice-Presidents, Pierre Bricage (France) as Secretary General. Currently, due to the unfortunate passing of Ranulph Glanville at the end of 2014, Stuart Umpleby (USA) was elected as Vice-President (also with more than 2/3 of votes).

Conclusions

IASCYS is a good example of linking social responsibility and reporting about it including a close cooperation with IRDO.

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- [6] Mary Catherine **BATESON**, Ockert **BOSCH**, Pierre **BRICAGE**, Pille **BUNNEL**, Antonio **CASELLES MONCHO**, Guangya **CHEN**, Hanfu **CHEN**, Jian **CHEN**, Gerhard **CHROUST**, Charles **FRANCOIS**, Ranulph **GLANVILLE** (†), Jifa **GU**, Enrique **HERRSCHER**, Wolfgang **HOFKIRCHNER**, Michael **JACKSON**, Louis H. **KAUFFMAN**, Kyoichi J. **KIJIMA**, Ervin **LASZLO**, Humberto **MATURANA**, Edgar **MORIN**, Matjaz **MULEJ**, Yoshiteru **NAKAMORI**, Francisco **PARRA-LUNA**, Laurence D. **RICHARDS**, Bernard **SCOTT**, George **SOROS**, Robert **TRAPPL**, Stuart **UMPLEBY**, Robert **VALLÉE**, Ernst **von GLASERSFELD** (†), Shouyang **WANG**, Andrzej P. **WIERZBICKI**, Jennifer **WILBY**, Jiuping **XU**, Rainer E. **ZIMMERMANN**
- Academics past home-pages are at <http://www.armsada.eu/pb/academiciansAccueil.html>
- [7] There are several organizations that have their roots in systems science and cybernetics. They might have candidates for IASCYS too.
- [8] At <http://www.iascys.org> the first application sheet, (Academicians' first Appointment) at the foundation of the Academy, and the today new application sheet (Academicians' new Criteria of election) to become an Academician, and Why to become an Academician?
- [9] *Bertalanffy arbeitete auf den Gebieten der Physiologie, Biophysik und Krebsforschung, sein besonderes Interesse galt der Methodologie und allgemeine Systemtheorie.*
- [10] "New ideas are conceived in the intellects of individual scientists, and they are particularly likely to originate where there are many well-trained intellects, and above all where intellect is valued."
Norbert Wiener (Invention: The care and feeding of ideas, p. 96.)
"At any rate, whatever benefits are awarded for scientific creation should have the good of the community as their purpose even more than the good of the individual. As such, they should be contingent on a full and free publication of the new ideas of the discoverer. The truth can make us free only when it is a freely obtainable truth."
Norbert Wiener (Invention, p. 154.)