

# Official Newsletter of the International Federation for Systems Research

Guest Editors: Mary C. Edson , Gary S. Metcalf, Editor-in-Chief: Gerhard Chroust Volume 31, no. 2 (November 2014)



Christmas, J. Chroust 2013

### Dear Reader!

This Newsletter is devoted to IFSR's outreach activities: with the support of 2 guest editors we are reporting on IFSR's flagship event, the bi-annual IFSR Conversation.

We are also announcing a new IFSR Fellow, Charles Francois. Finally we are giving an account of the activities of IASCYS and of two of our member societies.

With this issue the IFSR Executive Committee would like to convey to you our heartily Seasons Greetings and our Best Wishes for the oncoming New Year!



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One of the most anticipated activities of the IFSR since 1981 is the biennial Conversation held in different locations in Austria. The 2014 IFSR Conversation was held at Sankt Magdalena near Linz from Sunday, April 27, to Friday, May 2. It is a bucolic setting, perfect for the intensive work systems scientists from around the world gather to focus on during five days in spring. This year, the weather was particularly cooperative, allowing participants ample opportunities to stroll in the nearby woods. With fresh air comes inspiration.

Six teams gathered for this Conversation, each with distinctive perspectives of developments in the Systems Sciences. Some of the central themes that ran through all the discussions addressed two questions:

1. What are the most pressing global needs that the systems sciences can address, and

2. What are the future directions for the systems sciences?

This was an unusually large event for an IFSR Conversation, hosting over 40 participants. (That included Gordon Dyer, faithfully joining the Conversation Team by video conference each day.)

The facilities at Sankt Magdalena accommodate more people with much better meeting support than our most recent space at Fuschl am See. More participants and teams, however, also bring the potential for less familiarity and interaction between individuals and teams. While finding that balance is always a challenge, regardless of the size of the groups, it was navigated well by the participants this time.

One of the reasons for hosting such a large



St. Magdalena Church, J.Chroust 2010

Conversation was the quality of the proposals submitted for each team. In reviewing them, all six merited support. This also increased the chances that the topics for the teams would have little coherence. That, too, turned out not to be the case. Questions from philosophy to practical application arose at different points, regardless of the team's topic.

There is an organizational question for every Conversation, about how formally to share work and progress between teams. For many past events, that was done at the end of each day using short reports. This year the teams chose to stay focused on their work, minimizing the formal reporting. Throughout the week, though, common themes arose. Sometimes, the commonalities were addressed directly, by individuals visiting other teams. Often they were shared informally, across a table at meals. In the end, the results from the teams created an interesting collective body of knowledge.

The quality of the outcomes this year was due to many factors. All teams took the need for preparation prior to the meeting in Linz seriously, spending months before the event sharing ideas and planning. Team members had been chosen carefully and strategically. Many of the team topics were parts of ongoing work and research, continued in other venues. The results of the work were evident both during the week and at the end. Given the effort and expense of hosting a Conversation, the IFSR Executive Committee revisits the question of continuing them after every event. Is it worth the resources for everyone involved? The answer seems to be that the Conversations remain a rather unique opportunity. While five days of meeting is hard to fathom in most organizational environments today, it simply takes time for even small groups of people to get to a level of true dialogue with each other. Existing ideas or bits of information can shared quickly in texts or tweets. Challenging one's own thinking in order to arrive at new ideas takes more time and effort. So far, it seems worth continuing.

Find below glimpses into the work of the teams, in their own words.

### Team 1: 'Quality Control' of Model Development for Successful Systems intervention

Janet Singer, US Rick Adcock, UK Gerhard Chroust, AT Duane Hybertson, US Kyoichi 'Jim' Kijima, JP Michael Singer, US Mike Yearworth, GB

Team 1 continued the dialogue of recent years between systems scientists and systems engineers from IFSR member organizations, notably from the International Council on Systems Engineering (INCOSE) and the International Society for Systems Sciences (ISSS).

The 2012 IFSR Conversation [1] in Linz had led to the development of the Systems Praxis Framework (see <u>systemspraxis.org</u>). This loose framework related the terms 'systems science', 'systems thinking', and 'systems approach to practice' in a common map to allow systems researchers and practitioners to recognize and appreciate their complementary roles in the process of systems praxis without overly constraining the meanings of those terms. At a November 2013 Mini-Conversation in Cómpeta, Spain, the focus had been on exploring implications for systems intervention in general if 'wicked' or 'messy' problems were taken to be the default case rather than the exception.

In 2014 we wanted to bring in more concrete

details of the traditional systems engineering (SE) perspective to ensure we built on our prior work in a way that was both accessible and useful to the SE community. Our topic statement provided that traditional perspective in a form which was also relatable to a very broad range of issues from systems science, systems technology, systems arts and culture, and systems philosophy.

At the end of four days we were pleased to have started development of a broadly flexible new scoping figure for SE. This figure placed the traditional SE 'Vee' model in a systemic context of 'co-operative' activities relevant to successful systems intervention that are often left implicit and underappreciated.

Following the Conversation, team members have continued developing this figure, its foundations, and its implications through weekly telecons. An update on that work will be provided with our Team 1 report for the IFSR Conversation Proceedings [2].



Team 1: M. Singer, J. Singer, D. Hybertson, M. Yearworth, G. Chroust, R. Adcock, J. Kijima

## Team 2: Thrivable Systems – from Vision to Reality

Alexander Laszlo, US Stefan Blachfellner, AT Ockie Bosch, AU Violeta Bulc, SI Valeria Delgado, AR Dino Karabeg, NO MingFen Li, CN Nam Nguyen, AU Warwick Watkins, AU

**Conversation Topic**: The Synergetic Relation between Evolutionary Learning Labs and the World Evolutionary Learning Tribe

Our team continued an intact line of inquiry begun in 2012 to explore methods and models for curating



conditions for thrivability. The work of Team 3 at the 2012 Conversation [1] focused on 'designing learning systems for global sustainability: ramping up for the ISSS 2013 Conference in Viet Nam' and set the stage for the exploration of

systemic initiatives that curate thrivability in various types of community around the world. The 2014 Team 2 participants set out to investigate how the set of vehicles that emerged during the intervening year to carry out this exploration could best work together. To do so, we focused on the synergetic relation between the concrete manifestation of



Evolutionary Learning Labs (or ELLabs) as a paragon of systemic self-directed thrivability initiatives, on the one hand, and the World Evolutionary Learning Tribe (or WELTribe) as a functional construct for inter-relating the various levels of thrivability initiatives throughout the world in a technologically enhanced communications network of mutual selfempowerment.

Our guiding question was how can we support each other to excel the already existing efforts with which we are engaged around systemic sustainability? Since Team 2 was comprised of representatives of systemic sustainability initiatives from around the world, we began by sharing the dreams and drives that motivate each of us to engage in this work. Out of this emerged a list of organizing concepts that we used to create an initial inventory of interventions characterizing our respective systemic sustainability initiatives according to drives, tools, outcomes, and These we then divided into unifiers actions. (markers of common elements in our respective and differentiators (markers initiatives) of complementary elements).

With this framework in hand, we proceeded to take each of the systemic sustainability initiatives



represented by the partici-pants on Team 2 and create a road-map of how they interrelate in order to identify emerging syn-ergies among them and thereby pinpoint areas of

potential synergic collaboration. Accordingly, we heard from Ockie, Nam and Warwick about Think2Impact (T2i) and its relation to the ELLabs; from MingFen about the Green Silk Road in Taiwan;



from Stefan about the von Bertalanffy Center for the Study of Systems Science (BCSSS); from Valeria about the Observatorio Permanente de Organizaciones Sociales in Argentina (OPOS); from Dino about the Knowledge Federation and the Program for The Future Challenge (PFTF Challenge); from Alexander about the World Evolutionary Learning Tribe (WELTribe) and its origins in the International Society for the Systems Sciences (ISSS); and from Violeta about the InCO Movement (at a regional level), the Challenge Future initiative (at a global level), and the Heart of Slovenia (at a local level).

In considering the frames and meta-frames of interaction at which the various thrivability projects of Team 2 members operate, we realized they formed a type of nested holarchy or typology communities:

meta-community

 global community
 local community
 inner
 community

In different ways, each of our projects serves as vehicles for the interconnection of stories of systemic sustainability at and across these holarchic levels of thrivability. In searching for the synergies among our various initiatives, we realized that what is needed is an "SoS" – a system of systems – to serve as a meta-platform that interrelates and augments the impact of our individual efforts, and in so doing, emerges a higher level ecosystem of systemic sustainability communities.

In the end, we focused on two complementary systemic modalities. One was represented by T2i as the sort of template or initial framework for interrelating, correlating, and empowering existing systemic sustainability initiatives for greater impact in the world. This approach would foster a dynamic that moves from inner to local to global community levels in the nested holarchy we identified. The other approach was represented by the WELTribe and, in particular, by its WELTools initiative to research and identify and provide deeper understanding of the emerging pattern of systemic sustainability occurring in the world today. This approach would seek to feedback and improve all levels of the holarchic framework, the approaches at each level, and their impact at the emergent level of the meta-community.



As such, Team 2 self-identified as a transdisciplinary community of curators of these two interrelated approaches.

### **Team 3: New Directions in Cybernetics**

Michael Lissack, US Ranulph Glanville, GB Ray Ison, US Allenna Leonard, CA Tatiana Medvedeva, RU Stuart Umpleby, US Bernard Scott, GB

Our meeting in Linz was focused around two ideas: 1) what about cybernetics do we wish to ensure survives through the next few intellectual generations

2) brainstorming about strategies to make that happen. During the week, we were fortunate to consist of four past and present ASC presidents, six ASC board members, and the president of the ISSS (and we had Gary Metcalf drift in and out). Together, we not only were able to accomplish both goals (the articulation of cybernetics ideas to be carried forward and a strategy or two for how to do so) but also able to establish how to make a strategic pivot whereby the ASC cybernetics community would begin an outreach program to other disciplines.

Historically ASC and its community have focused outreach activities within the broad systems sciences community. This was the result of the history of both the cybernetics and systems science movements, and tended to be characterized as efforts by one group to see the other as a "part" of their "more general" community. Through the early 1980's such an approach and dialogue seemed to bear constructive fruit at an intellectual level (even while being frustrating on the "can't we all just get along" level). For the past few decades, however, the dialogue seemed to be going only in circles and little insight seemed to be a by-product. The time had come for something new.

As we discussed this situation and as we interacted with the other groups in Linz several innate 'suspicions' held by the cyberneticians became better grounded:

1) the general systems science community tended to think of cybernetics as it "was" in the 1960's – i.e. "first-order" cybernetics, the study of feedback -- and was mostly ignorant of the principles of observer-related context-dependent second-order

cybernetics as it has been developed from the 1970's to date,

2) the general systems science community, with a few prominent exceptions, had a weak understanding of constructivist perspectives,

3) as a result of 1 & 2 combined, much of what the cyberneticians were trying to share with the more general systems folk was getting "lost in translation" and

4) while the two communities share a similar vocabulary, the lack of explicitness about definitional and philosophical differences surrounding that vocabulary was getting in the way of intellectual advancement.

Putting some firm ground underneath these "suspicions" was crucial in developing the "way forward" dialogue at the ASC conference which followed a few months after Linz. It was now readily apparent that, if we were going to engage in the productive dialogue we all want to have, much more effort needs to be devoted to making sure



that terms are defined, perspectives articulated instead of assumed, and a deliberate compare and contrast across perspectives be made an explicit part of presentations. These lessons are not restricted to our outreach to the systems sciences.

As we articulated what we thought were meaningful cybernetic lessons to be passed on to future generations, as a group, we applied the above

lessons to ourselves. Indeed, amongst the cyberneticians in the room the number of definitions was usually equal to N+2 (two more than the number of participants) and the philosophical perspectives tended to number N/2. Our tendency to assume that others knew what we were talking about was getting in the way of our ability to communicate.

Finally, we outlined a program of outreach to other disciplines. Our general observation was that during the fifty plus years of cybernetics' existence the discipline had encountered a number of epistemological challenges. Our history could thus serve as a set of analogous lessons for other disciplines that are faced with similar epistemological challenges. In the story-telling lay the potential for both meaningful outreach and intellectual collaboration.

For both the ASC and for the group of people involved, the discussions at Linz were thus very fruitful and a great success. We are indebted to IFSR for the opportunity so provided.

### **Team 4: Future Directions of the Banathy Conversation Model**

#### Gordon Rowland, US

Gordon Dyer, GC Jed Jones, US, Yoshi Horiuchi, JP Yoshi Ohkami,JP Silvia Zweifel, AR

Team 4 asked the overarching question, "How might the Banathy conversation model evolve in ways that broaden its appeal and lead to greater application and impact?" We used a variety of methods in seeking an answer, including exploring a case example, considering general models of inquiry, and comparing alternative forms of conversation and dialogue. Our work followed two primary strands, one concerning how we might promote the Banathy Conversation Model to external audiences, and the other concerning how the associated methods might evolve.

In terms of promoting the model to external audiences we articulated

(a) features, benefits, and key differentiators (e.g., a structured methodology to addresses root causes and reframe problems, deals head-on with challenges, gathers and captures ideas from all important stakeholders, draws upon three decades of international practice and theory), #

(b) how potential objections such as a lack of time and/or understanding might be overcome, and

(c) the nature, structure, and function of the method itself (e.g., participants, leadership and facilitation, logistics and tactics, intellectual tools, milestones, outputs and deliverables).



In terms of how the method might evolve, we considered the parts/dimensions of the model and developed and/or tested a number of new tools (e.g., the use of software applications for remote participation, a question algebra, and a model of planned change). We generated a new participant role—the Zen mondo trickster—and we reviewed and employed parts of the *Draft Guidebook for Designing and Sustaining Effective Conversation* developed by Gordon Dyer.

Intercultural communication proved to be a key theme across all our work during the week and in our planning for follow-up work that will be led by our members in Ushuaia, Argentina and in Japan.

### **Team 5: Systems Philosophy**

Jennifer Wilby, GB David Rousseau, FR Gerald Midgley, UK Julie Rousseau, FR Manfred Drack, AT Rainer Zimmerman, DE

Team 5 of the IFSR Conversation 2014 met to reflect on the lack of progress towards the founding ambitions of the systems movement, and to consider to what extent the fragmentation of philosophical perspectives within the systems community needs to be embraced or overcome in order to re-energise the systems movement. A key question for the week was this: If we think of "Systems Research" as representing the systems field as a whole, then what (if any) would be suitable philosophical foundations for Systems Research, and how would that help us improve our practice?



It quickly became evident to us that the situation is very complex. The philosophical commitments of the early general systems movement are contentious, and we do not have a consistent lexicon for discussing systemsphilosophical perspectives. Moreover, GST does not yet exist in a mature way and there is disagreement about what it stands for, so it is unclear what needs to be done to establish it.

Nevertheless, we were able to distil a model for how Systems Research progresses in practice, and show that at present the application and development of Systems Theories and Systems Methods depends critically on implicit personal, rather than explicit communal, philosophical frameworks. The team members are now engaged in writing a paper documenting this model in detail, and outlining how it might function as an aid to the development of a more coherent philosophical framework for the systems movement.

An important recommendation from the week's Conversation is that given the fragmented state of the systems community, we need the IFSR to support and facilitate projects to (a) establish a consistent lexicon for systems philosophy, (b) develop a model for articulating systemsphilosophical perspectives, (c) develop a map of the Systems Research community, and (d) lead an effort to clarify what "GST" is and to pursue its development.

### Team 6: Systems Research Team

Mary C. Edson, US Debora Hammond, US, Pam Buckle Henning, US John Kineman, US Louis Klein; DE Shankar Sankaran, AU Will Varey, AU

The purpose of the Systems Research Team's (SRT) work at the 2014 IFSR Conversation focused on a compelling question, "What distinguishes Systems Research from other forms of research?" This question propelled the SRT's Conversation in multiple directions; however, two threads predominated (given the diverse backgrounds of team participants) – those that were divergent and those that were convergent. As a result, the SRT's Conversation began to scope out the breadth and depth of this subject.

The SRT began meeting monthly via WEBEX in November, 2013, in preparation for the Conversation in April, 2014.



## Systems Research Framework

Figure 1 : Systems Research Framework

In the months leading up to the Conversation, the SRT focused on gathering resources and conducting a survey of existing Systems Research. At the Conversation, the SRT consciously chose to focus on specific areas related to developing a shared

framework (see Figure 1) and process for discussing Systems Research rather than attempting to comprehensively address the far-reaching scope of



#### Figure 2: Scope of Systems Research

the field (see Figure 2).

The process the SRT used synthesized the Conversation into four (4) questions for further exploration:

- What can we do to promote good systems research as we understand it? (PLAN)
- What do we see as key elements of good systems research? (ACT)
- What would a good systems research output look like? (OBSERVE)
- How is good systems research organized? (REFLECT)

These four questions converged into a compelling question for the future work of the SRT and the entire Systems Community, "What can WE provide to enhance the quality and impact of Systems Research?"

#### PROPOSED APPROACH

In general, the SRT agreed one of the essential factors distinguishing Systems Research from other forms of research is that the systems approach is intentionally undertaken (designed) using an integrative or systemic (i.e. "the whole is greater than the sum of its parts"), in addition to a systematic, perspective - theoretically, methodologically, and/or analytically. The SRT considered if Systems Research discussions, recommendations, and conclusions needed to explore the integrative or systemic effects and consequences of the research.

Further, using the analogy of a duck (i.e. "Does it look like a duck? Quack like a duck? Waddle like a duck?"), the team explored questions of whether Systems Research benefits from situational utility, compositional adequacy, philosophical concordance, assertive plausibility, and procedural descriptives.

#### Fig 3: Interdependence of Systems Research Ontology



The SRT proposal noted that the relationship between ontology, epistemology and methodology (i.e. being, knowing and doing) in systems research required an inter-dependence reflecting the specifics of the research and the preferences of the researcher (see Figure 3).

#### SUMMARY

Future actions for the SRT include the following questions:

- 1. What currently qualifies as Systems Research for publication and are these standards reflective of the field and its future directions (ontologically, epistemologically, and scope)?
- 2. What Systems Research guidelines can be shared



with graduate students and researchers who want to design, conduct, and publish their research in journals related to the Systems Sciences (e.g. Systems Research and Behavioral Science)?

3. What role does the Systems Community play in educating scholars, practitioners, and other educational outlets about the value of Systems Research?

These questions, as well as others will continue to be addressed, developed, and shared by the SRT with fellow members of the International Federation for Systems Research, as well as its member organizations.

## 2014 IFSR Conversation: Closing Remarks

Participants of the 2014 Conversation expressed profound appreciation for the unique opportunity to engage with colleagues in development at this level and the value it brings to each one's work in the Systems Sciences. After over 35 years, the tradition of Banathy's Conversation remains one of the most treasured processes in our community of scientists, systemicists, researchers, and practitioners. The Executive Committee wishes to express its deep gratitude for the dedicated participation of each team member. Please stay tuned for the 2014 IFSR Conversation Proceedings [2], which will be published online early in 2015.

References:

- [1] Chroust, G., G. Mertcalf., (eds.) Systems and Science at Crossroads Sixteenth IFSR Conversation Inst. f. Systems Engineering and Automation, Johannes Kepler University Linz, Austria, SEA-SR-32, Sept.2012 and <u>http://www.ifsr.org/wp-content/uploads/2013/04/conversations-2012-magdalena-proc.pdf</u>.
- [2] Metcalf, G.S., M. Edson, N. Nguyen, G. Chroust (eds.) Systems Thinking new directions in theory, practice and applications Inst. f. Telecooperation, Johannes Kepler University Linz, Austria, SEA-SR-41, Dec. 2014 (to be published).



IFSR, Gerhard Chroust, bestowed the title of

### FELLOW OF THE IFSR

on Charles François, Argentina, Honorary President of GESI,

for outstanding services to the IFSR and the Systems Community at large.



Specifically the following achievements were recognized:

- 1. Author of the first reference work in Spanish in the systems field: the Dictionary of Systems and Cybernetics, edited by GESI and IAS in Buenos Aires, 1992
- Author of the first seminal Encyclopedia of Systems and Cybernetics (two editions): François, C.: International Encyclopedia of Systems and Cybernetics, K.G.Saur, Munich 1997, ISBN 3-598-11357-9 and François, C.: International Encyclopedia of Systems and Cybernetics . 2nd edition, 2 volumes, K.G.Saur, Munich 2004. 739 pp.ISBN 3-598-11630-6
- 3. Donor of part of his accumulated multidisciplinary library: proceedings, books and journals to the Systems Community via the BCSSS.
- 4. Key person in founding and maintaining interest, activities and new systemic groups of research in Systems and Cybernetics in Latin America
- 5. Founder and for a long time president of "GESI" (Group for the Study of Integrated Systems), the Argentine National Division of the <u>International Society for the Systems Sciences</u> (ISSS) in 1976.
- 6. Active contributions to the systems sciences by conceptual research work and as Visiting Professor at various universities in Argentina and at numerous conferences
- 7. Continuing support for the International Federation for Systems Research (IFSR)

For an extensive CV see

- 1) on the IFSR Homepage : <u>http://www.ifsr.org/index.php/charles-francois-5-september-1922-90-years-of-life-in-9-worlds/</u> and <u>http://www.ifsr.org/index.php/charles-francois-1922/</u>
- 2) On Wikipedia: http://en.wikipedia.org/wiki/Charles Fran%C3%A7ois %28systems scientist%29
- 3) On GESI Homepage: <u>http://www.gesi.org.ar/mentor/</u>

This year the annual meeting of <u>ELAPDIS</u> (Escuela Latinoamericana de pensamiento y diseño sistémico) was hosted by <u>ITBA</u> (Instituto Tecnológico de Buenos Aires) on November 12 to 15. During the last session an homage was held to acknowledge contributions of the eldest of GESI to the systems movement.

In was a magnific occasion since several of the participants from Bolivia, Brasil, Chile, Colombia and Argentina were aware of Charles François's work. Pedro Luna, founder of FundArIngenio, an institution based in the north of Argentina, handed the plaque "Fellow of the IFSR" over to Charles François.

The GESI also took the opportunity to recognize Charles François, Enrique Herrscher and Ernesto Grün nominating them members of GESI's "Council of Notables". Gloria Nazer was nominated "Distinguished member" for her constant contributions over decades to Charles François's efforts and to the systems movement.

The gathering concluded with Bob Dylan's song "Blowing in the Wind", for its significance to our challenges and life's.



Front, from left to right: Gloria Nazer, Enrique Herrscher, Ernesto Grün and Charles François. Back, from left to right: José Luis Roces, Eva Sarka, Silvia Zweifel.



# International Academy for Systems and Cybernetic Sciences (IASCYS)

For achieving parts of its missions (<u>http://iascys.org</u>), for the second time, with the BCSSS, the Academy coorganized **the PhD day** during the 2014 EMCSR in Vienna (Austria).

A particular attention was again given to the composition of the jury by our General Secretary. With regard to the jury of 2012 half of it memovers were new, reflecting the diversity of origins and skills of the reviewers.



In orer to achieve part of its missions (<u>http://iascys.org</u>), the Academy organises workshops in **international research meetings** and co-sponsors selected ones. This 2014 year the IASCYS is a co-sponsor of 8 events:

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





Response and Responsibility of the Systems Sciences

# International systems researcher and practitioner showcased their impact on science and society in Vienna



(left to right) Mario Bunge, Wolfgang Hofkirchner, Stefan Blachfellner, Janos Korn

At the 22nd European Meeting on Cybernetics and Systems Research (April 22- 25, 2014, University of Vienna) more than 170 contributions from international scientists and practitioners have been presented in the second year of the organization by the Bertalanffy Center for the Study of Systems Science. More than 200 attendees joined the meeting, which was especially designed to represent the scientific and social impact of the members of the International Federation for Systems Research and their international networks (www.emcsr.net).

emcsr

Thus the meeting in 2014 united again the renowned organizations in this field of research with the support of the International Federation for Systems Research and the Vienna University of Economics and Business, with the participation of representatives of all the local universities of Vienna from Arts, Technology, Medicine, Natural Resources and Life Sciences, and Humanities. Three central themes "Sustainability & Development", "Emergence & Design" and "Strategy & Complexity" draw the bow of the current transdisciplinary approaches of systems sciences with contributions from the natural sciences, social sciences and technical sciences.

System scientists, philosophers, social scientists, economists, biologists, engineers and designers followed the call for a showcase of the most innovative solutions to the current global complex problems under the title

"Civilisation at the Crossroads - Response and Responsibility of the system sciences".

Mario Bunge from the McGill University, Montreal, Canada has been honoured with the 2014 Ludwig von Bertalanffy Award in Complexity Thinking. Markus Schwaninger from the University of St.Gallen held the Ross Ashby Memorial Lecture on Organizing for Sustainability, traditionally sponsored by the International Federation for Systems Research.

systems Impactful science has been demonstrated by outstanding examples, including case studies of policy advice by the prestigious International Institute for Applied Systems Analysis (IIASA) from Austria and the Evolutionary Learning Labs supported by the Bill and Melinda Gates Foundation and their successful projects in Southeast Asia and Africa.

In order to promote young scientific talents and to create the unique opportunity of networking with the living founders of the system sciences the organiser Bertalanffy Center for the Study of Systems Science sponsored again a special competition for outstanding research by doctoral students, co-organized with the International Academy for Systems and Cybernetic Sciences (IASCYS). Katri-Liisa Pulkkinen with her thesis on "A bottom-up way of building a system and changing perceptions: urban pioneers as a model for transformation for sustainability" was awarded with the 1000 Euro prestige's prize among the six selected nominated PhD candidates.



Young Scientists (with P. Bricage, IASCYS, far left), Katri-Liisa Pulkkinen and Alexander Laszlo, ISSS (far right)

In 2012 the Bertalanffy Center set the goal to create a strong European hub for the international system sciences in Vienna, building on the EMCSR 40 years of tradition. Two years later this objective has been achieved. We were pleased to welcome this year guests from 24 European countries as well as from Asia, Africa, Australia, New Zealand and Americas



WCSA 2014: Inventing of the Future in an Age of Contingency

"What type of systemic toolkit would you like to have to design the world 2030 in its key economical, juridical, sociological and technological aspects?" This question was central in the Call for Paper of the V. Conference titled "Inventing of the Future in an Age of Contingency" of the World Complexity Science Academy which was held in collaboration with International Federation for Systems Research in Budapest on the 7th-8th of November 2014.

WCSA promotes the meeting and the cooperation among scholars. Consistently with this purpose, WCSA organizes periodical national and international Conferences and supervises specific and scientific publications.

The conference was intellectual and cosmopolitan. As we believe in a high added value of knowledge sharing on a global scale,

Edit Fabó as a member of the Program Chair attended conference of the EMCSR titled "Civilization at the Crossroads" in Vienna on the 22nd–25th of April 2014. Giulia Mancini, another member of the WCSA leadership joined her on the Board Meeting of the IFSR on 26th of April 2014. This sharing intends to facilitate the free circulation of intellectual and strategic capitals in fact we cooperate with entrepreneur, professionals, scholars interesting speakers such as Gerhard Chroust and Alexander Laszlo to share and focus on an interdisciplinary systemic approach to digital capital, global trends and conceptual maps.

According to WCSA mission for this conference three several bilateral agreements were signed with other organizations such as: the Club of Budapest, University Library of Eötvös Loránd University, Hungarian Sociological Association, Library and Information Centre of the Hungarian Academy of Sciences. The conference was held in the Green Salon of the Hotel Astoria in Budapest. There were three sessions with 23 speakers from eleven different countries. Andrea Pitasi created a very interesting roundtable discussion titled "Fundraising Policy for Systemic Research in Social and Economical Sciences" with several leaders of scientific associations. His guests were Alexander Laszlo (president of the International Society for the System Sciences), Rok Bukovšek (general manager at the Ota-S d. o. o.), Alfredo Spilzinger (president of the Santa Fe Associates International), Gandolfo Dominici (scientific director of the Business Systems Laboratory), Goerge Csepeli (president of the Hungarian Sociological Association) and Marjolein van Griethuysen (director of the European Affairs and Innovation at Erasmus University Rotterdam).

WCSA has decided to take the more decisive steps in system science. The Board of the WCSA together with its partners strives to strenghten the systemic science. WCSA will announce the new Call for Papers for the next year's conference. Visit WCSAglobal.org for upto-date information.



**Official Conference Dinner** 



### International Federation For Systems Research

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