

# **From Science Heritage to Present Design and Future Practice : Prospects for the Development of the Systems Science and Systems Research Field.**

Stefan BLACHFELLNER

Managing Director, **Bertalanffy Center for the Study of Systems Science**, Vienna, Austria,  
[www.bcsss.org](http://www.bcsss.org)

Managing Director, **European Meetings on Cybernetics and Systems Research**,  
[www.emcsr.net](http://www.emcsr.net)

Secretary General, **International Federation for Systems Research**, Vienna, Austria,  
[www.ifsr.org](http://www.ifsr.org)

SIG Chair on Socio-Ecological Systems and Design,  
**International Society for the Systems Science**, [www.iss.org](http://www.iss.org)

## **Abstract**

Today, the Bertalanffy Center for the Study of Systems Science (BCSSS) is an Austrian independent research institute, internationally acknowledged as an ambassador for the systems science heritage and present state-of-the-art applied systems research. The presentation will highlight the story of a ten years journey that led to this current progress of BCSSS as one independent institution in the context of the economic and political developments in Europe and the strained interplay of academic and practice paradigms.

Today, the BCSSS is dedicated to advancing systems concepts and approaches and to applying them to real world challenges through

- executing and supporting research projects towards systemic innovative solutions for Sustainable Development.
- supporting the next generation of systems researchers with scholarships and awards.
- executing and supporting international scientific forums like the European Meetings on Cybernetics and Systems Research (EMCSR) to foster global networks between researchers and practitioners.
- disseminating systems knowledge by executing and supporting lectures, workshops and publications.
- administrating the archive of Ludwig von Bertalanffy and other collections as well as opening the heritage to the public.

The presentation will emphasize the importance of our shared scientific systems and cybernetics heritage, which is nowadays actively requested by many groups in society. To effectively contribute to present design and future practice challenges in the context of a sustainable development and the interdependent social transformations, we need to enhance our shared heritage.

Thus, the BCSSS invites the IASCYS and other representative organizations in the field to revive and strengthen the impact of systems science and research in practice, to collaborate on and to actively contribute to

- ❑ the Ludwig von Bertalanffy & Cybernetics and Systems Archive
- ❑ the International Encyclopedia of Systems and Cybernetics
- ❑ the development of contemporary systems & data science epistemologies
- ❑ the development of current educational modules and curricula

The presentation will furthermore address the need and invitation to collaborate in a systems research peak body, which the International Federation for Systems Research (IFSR) may become. The BCSSS hosts and supports the IFSR now, because we believe in the ideal of a systems movement, as once envisioned by Ludwig von Bertalanffy and others. Policy developments in the domains of technology and engineering, design, economics, social transformation and environment, as well as public service innovation are creating a strong demand for understanding and addressing cross sectoral, multi-stakeholder, transdisciplinary complex challenges.

The BCSSS has already developed relations with international research organizations and European as well as international policy organizations (European Environmental Bureau, European Economic and Social Committee, European Commission, OECD, UN). We are collaborating with the International Council on Systems Engineering on policies development and the development of their body of knowledge for the advancement of systems engineering (e.g. curricula). We have always been connecting our efforts with other systems organizations in the field. These challenges need collaboration and we as systems scientists and researchers should be able to lead by example and overcome disciplinary or domain dependent silos, created by the history of knowledge development and diverse power games. If we are able to unite, we are able to contribute to the societal questions that are raised today, we are able to collaborate on policy, technology and social developments. Together we are able to contribute as humans to humanity, which our founders envisioned as a present-future prospect that we should not miss out on.

### **Stefan Blachfellner**

Stefan Blachfellner is the Managing Director of the Bertalanffy Center for the Study of Systems Science (BCSSS) in Vienna and the Conference Manager for the European Meetings on Cybernetics and Systems Research (emcsr/avantgarde), the appointed Secretary General (former Vice President) of the International Federation for Systems Research (IFSR), and the SIG Chair on Socio-Ecological Systems and Design (former Vice President) of the International Society for the Systems Sciences (ISSS). He is founding editor of the journal *Systema: Connecting Matter, Life, Culture, and Technology*, author, guest editor and reviewer for several international peer-reviewed journals and reputable publishers (Springer, Oxford University Press, Routledge).

He has broad international experience as an entrepreneur and business consultant in Fortune TOP 500 industries, and the service sector as well as in public administration and cultural and educational organizations. He has taught entrepreneurship, leadership, creativity and innovation management, digital business, future studies, and various systems theories in practice at several Universities and in professional management training programs in Austria, Germany, France, China and the USA.

From 2016 to 2018 he was appointed as Special Adviser to the European Commissioner for Transport to prepare advice on infrastructure, data, apps, services and networks in the context of multi-modality towards a European Digital Eco-System for Intelligent Multimodal Transport Systems. He is regularly requested to contribute to diverse professional, governmental and non-governmental organizations in policy developments and innovation towards the Sustainable Development Goals.

His current work with and in international research teams is focused on the development of a General Systems Transdiscipline, Systems Design, Systemic Innovation and Impact Assessment to improve methods for addressing complex challenges towards the so-called Next Economy.

[www.blachfellner.eu](http://www.blachfellner.eu)