

APPLICATION FOR POSITION AS MEMBER OF ISOFAR BOARD OF DIRECTORS 2021-2024

Academic title, first and surname:	Dr. Jochen Mayer	
E-Mail:	jochen.mayer@agroscope.admin.ch	
Personal information (volunteer):	Gender: male	Year of birth: 01.12.1965
Academic position:	Deputy research group leader Agroscope Dept Agroecology and Environment	
Affiliation	Address: Reckenholzstrasse 191, 8046 Zurich, Switzerland Website: https://www.agroscope.admin.ch	
ISOFAR member:	Since: 2008	Member no.: 156
ISOFAR membership paid (mandatory, can be arranged after application but before elections at the GA):	2020: yes	2021: yes
Short CV including up to 5 important projects and 5 publications	<p>2002- Senior Scientist and deputy research group leader at Agroscope, Switzerland, Nutrient flows and long-term experiments</p> <p>2003 PhD in soil science and plant nutrition, Dept Organic Farming and Cropping, University of Kassel, Germany</p> <p>1995 Diploma in agricultural science, University of Hohenheim, Stuttgart, Germany.</p> <p>1989 Agriculturist (two years practical education)</p> <p>My work so far has been closely related to the development of organic farming systems. Since 2008, in cooperation with the Research Institute of Organic Agriculture (FiBL), I am the responsible scientific coordinator for the DOK long-term system comparison. My research interests in this context are studies on root-soil interactions, belowground nitrogen and carbon inputs from legumes and non-legumes and their relevance for the national and global climate gas inventory, the performance of yields in organic and conventional farming systems and nutrient-related yield limitations in organic farming. The nitrogen use efficiency of manure and digestate in combination with biochar and legumes in arable organic farming systems is one of the main topics of my current national and international research activities. As an active researcher, I have acquired and successfully managed third-party-funded projects from the Swiss National Science Foundation, the national research</p>	

programmes of the Swiss National Science Foundation (NRP68 Soil) and research funds from the Swiss Federal Offices for the Environment, Energy and Agriculture and the European Union.

I have a broad system knowledge on organic farming systems and agro-ecological system contexts. I am very well networked in the international research community. This knowledge I would like to use for developing new, innovative farming systems with focus on organic agriculture, including animal husbandry and fertilizers as well as new smart technologies sustainable solutions require interdisciplinary cooperation between different disciplines, which I would like to initiate and bring together.

I organised several scientific conferences on organic farming, e.g. the first "Organic Farming" as student at University of Hohenheim (Germany with more than 500 participants), the organic farming conference "Wissenschaftstagung" of the German speaking countries 2009 in Zurich or the international cutting-edge conference "DOK-Monte Verità" 2019 in Ascona, Switzerland.

Projects

MICROSERVICES: Predicting climate change impacts on plant-microbiome diversity and cascading effects on ecosystem services delivery in agroecosystems.

Biodiversa, Swiss National Science Foundation (SNSF)

2021 - 2024

Recycling of biomass nutrients and carbon for advanced organic fertilization in an eco-smart and climate positive agriculture on Cuba (Bio-C)

Swiss National Science Foundation (SNSF), Swiss Programme for Research on Global Issues for Development (r4d programme)

2018 – 2022

Optimization of the use of Recycling Fertilisers in Organic Farming: Yield effects and Nitrogen Use Efficiency (Recycle4Bio)

Swiss Federal Office of Agriculture (FOAG)

2018 – 2021

Publications

Hammelehle A, Oberson, A Lüscher A, Mäder P, **Mayer J** (2018) Above- and belowground nitrogen distribution of a red clover-perennial ryegrass sward along a soil nutrient availability gradient established by organic and

	<p>conventional cropping systems. <i>Plant and Soil</i> 425: 507-525.</p> <p>Hirte J, Walder F, Hess J, Büchi L, Colombi T, van der Heijden MG, Mayer J (2021). Enhanced root carbon allocation through organic farming is restricted to topsoils. <i>Science of the Total Environment</i> 755.</p> <p>Hirte J, Leifeld J, Abiven S, Oberholzer HR, Mayer J (2018) Below ground carbon inputs to soil via root biomass and rhizodeposition of field-grown maize and wheat at harvest are independent of net primary productivity. <i>Agric Ecosyst Environ</i> 265: 556-566.</p> <p>Mayer J, Gunst L, Mäder P, Samson MF, Carcea M, Narducci V, Thomsen IK, Dubois D (2015) Productivity, quality and sustainability of winter wheat under long-term conventional and organic management in Switzerland". <i>Eur J Agron</i> 65: 27-39.</p> <p>Mayer J, Mäder P (2016) Langzeitversuche - Eine Analyse der Ertragsentwicklung. In: B Freyer (ed) <i>Forschung im Ökologischen Landbau</i>. UTB, Stuttgart, Germany.</p>
<p>My reasons to join the ISO FAR Board:</p>	<p>A sufficient and sustainable agricultural production is one of the greatest global and regional challenges of the future. Limited farmland, climate change, loss of soil quality and biodiversity, and excessive use of non-renewable resources require new solutions for future farming systems beyond existing management practices. Organic farming systems can make a significant contribution to solving these future issues. However, also here, a significant innovation boost is needed. We observe a stagnating development of yields in organic farming in temperate climates under practical conditions and in long-term experiments. Organic farming usually provides ecosystem services better than conventional systems with higher biodiversity, better soil quality, lower greenhouse gas emissions and groundwater pollution. These advantages are reduced when the sizes are related to the unit produced. This is often associated with moderate yields in organic farming. Ongoing climate change and an expected growth of world population until 2070! will place additional adaptation requirements on future cropping systems.</p> <p>My vision is to advance organic cropping systems to meet future challenges. That requires enforced international research exchange and collaboration. ISO FAR is the organisation, which can support this process efficiently.</p>
<p>My possible contributions to Board activities:</p>	<p>I see my role in the ISO FAR board in supporting regional and international research exchange and building platforms for exchange on how organic farming systems could be developed may be beyond existing organic</p>

	boundaries. That could be done in more topic oriented conferences or workshops.
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By submitting this application, I declare my interest to participate the ISO FAR Board of Directors during the period from the General Assembly in Rennes, France 7 September 2021 until the next GA, in 2024. I am aware that ISO FAR does not pay for services provided by board members to the organization, or any other cost related to the role of being a board member. In exceptional cases, travel costs may be refunded.

I am aware that only people attending the GA in Rennes, either physically or by web-link, are available for elections. All candidates will be given the floor for a BRIEF oral presentation (3 minutes) during the GA.

Zurich, 30 July 2021



Location, date and signature