

# IDP BRIDGES*News*

IDP BRIDGES - Bridging Plant Sciences and Policy

No 5, 2016

## Upcoming training

## PSC Policy Training: Scenario-building and Modelling

Dec 13, 14 and 15, 2016

University of Zurich

## PSC Policy Workshop: Building Political Support

Feb 7 and Mar 8, 2017

University of Zurich and

Swiss parliament in Berne

## PSC Policy Workshop: Communicating Science

May 8 and 22, 2017

University of Zurich

## PSC Mentoring

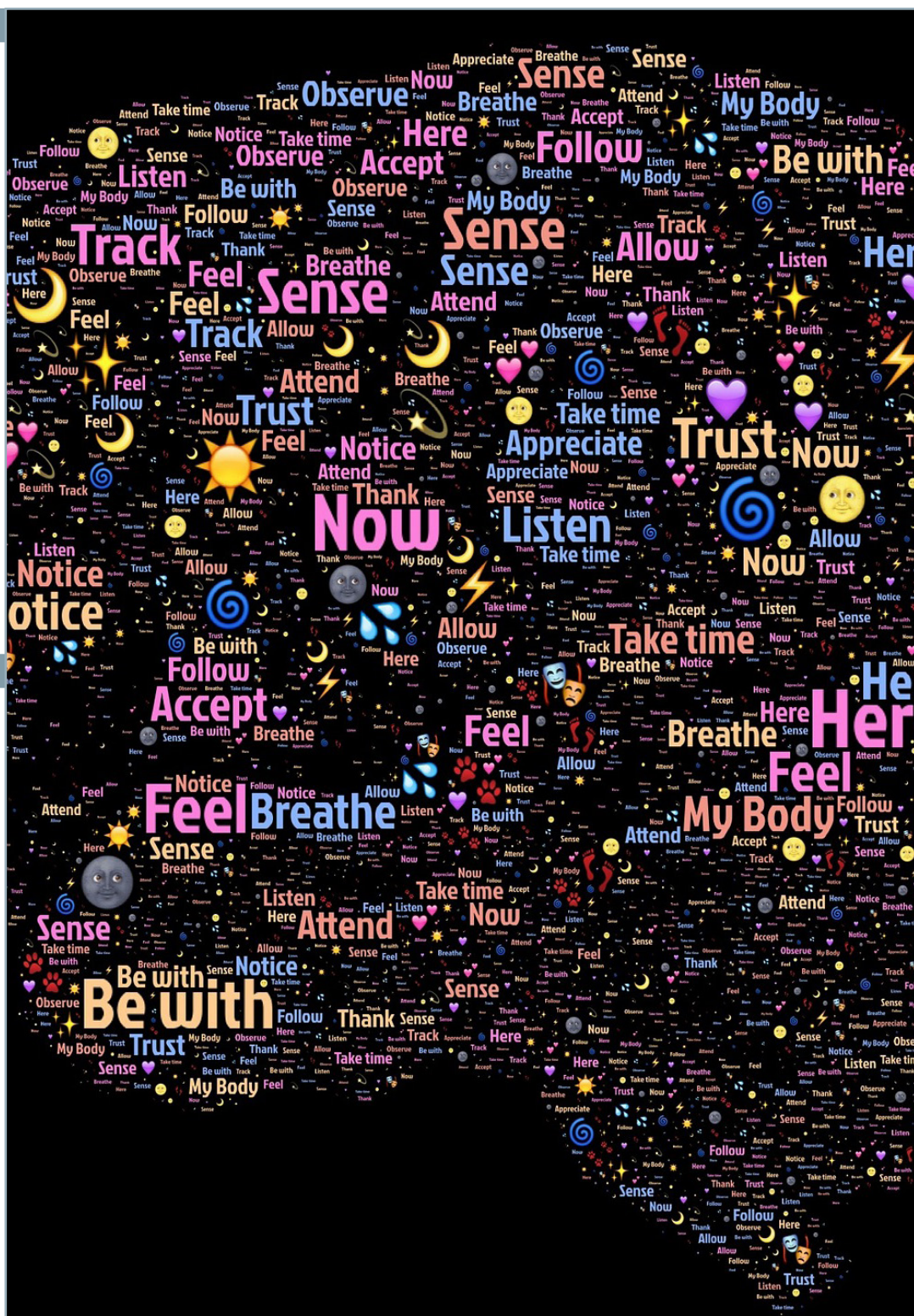
## Careers in Science and Policy, or both?

Sep 20 - Dec 20, 2016

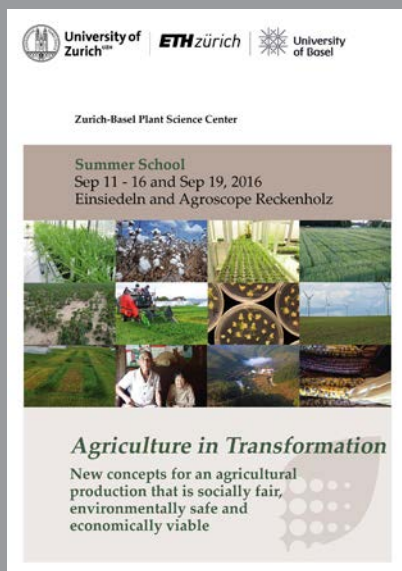
Every second Tuesday

17 to 20 pm

ETH Zurich



## Take homes from the PSC Summer School



Future demand in agricultural output is supposed to match the needs of 9-billion people with less input of resources. Can we transform our agricultural practices and move behind existing paradigms to develop innovative and sustainable agriculture production systems? The aim of the 2016 summer school was to facilitate an intensive interaction between students and stakeholders from federal agencies, non-governmental organizations, scientists and industry to discuss ideas, concepts, and trends and share opinions on how different sustainable agriculture productions systems might develop. We explored how current examples of a transition towards a sustainable agriculture production system on different scales can be assessed in the dimensions of socially fair, environmentally safe and economically viable.

The importance of the holistic & the bottom-up approach

Conflict:  
Theory vs.  
Reality

The complexity of agricultural production is the challenge

Respect other  
visions

All necessary changes need to pass the political bottleneck

*VISION 2036*

*If we wish to change people's behavior towards dietary habits, we need to provide more information*

*Integrated farming solutions, adapted to regional conditions and using technological advances*

*Open platform for public participation*

Feedback from participants



# TRANSITION TO SUSTAINABLE AGRICULTURE - TWO CONCEPTS

In its 2016 summer school «Agriculture in Transformation» the PSC discussed possible trajectories towards a sustainable agriculture: On what worldviews do we build our ideas of transition? How is sustainable agriculture becoming part of food system transition? What are ethical considerations that can help us to assess our different interpretations of sustainable agricultural concepts? In what political and economic environments do we navigate? What do the existing concepts for example sustainable intensification and agroecology propose? How can we assess their implementation?

## The underlying problem

Currently mankind moves from an era of unlimited external resources for agricultural production to scarcity of natural resources (land, water, nutrients, energy), environmental limits (loss of biodiversity and climate change) that are accelerated by political, social, institutional and economic obstacles with tipping points nearly reached and planetary boundaries overstepped (Steffen et al. 2015). We need to change agricultural production setting the priority on sustainability without compromising food security.

Transformation: the dominant paradigm is challenged and replaced by new concepts and changes in the socio-economic system. Is a transformation in agriculture underway?

## Two concepts are present currently

**SUSTAINABLE INTENSIFICATION** serves as an overall term to describe efforts and approaches to increase yields of arable crop plants on the existing farmland with far less environmental impact and less external resources (e.g. fertilizers, pesticides and water) through the use of smart farming technologies combined with (bio)technological approaches for more resource-efficient crop varieties and increased quality of yields for human nutrition (e.g. through biofortification or orphan crop breeding) (Garnett et al. 2013).



**AGROECOLOGY** is defined as a set of farming practices that are based on internal inputs (e.g. organic fertilizer) and ecological processes (e.g. for provision and regeneration of soil fertility), such as multiple ecosystem services (e.g. provision of food, water supply, pollination or pest control) and knowledge-driven systems (e.g. build on diversified crop rotations or intercropping systems) (Tomich et al. 2011, Wezel et al. 2014).

Underlying to these concepts are two different narratives – not mutually exclusive (SCAR 2011): In the **PRODUCTIVITY NARRATIVE** scientific advances have the potential to bring forward new varieties, breeds and technologies that boost productivity and that at the same time take into account resource scarcities and environmental problems. In the **SUFFICIENCY NARRATIVE** scientific advances have the potential to bring forward agro-ecosystems that are both productive, respectful for ecosystems and resource saving. ... However, to stay within the capacity of system Earth, demand increases need to be mitigated through behavioural change and structural changes in food systems and supply chains (among which food chain efficiency, reducing or re-using waste...).

With these narratives in mind technologies and innovation – both necessary ingredients for the upcoming transformation – will be assessed in different ways: for example is the technology making more efficient use of resources or is the technology supporting more sufficient use of resources?

What is the difference in this wording? In the first sentence the technology is controlling the system (to become more efficient and productive). In the second sentence the system is controlling the technology (to serve the system's needs). If we keep this difference in mind we will make more deliberate technology and innovation choices.

Melanie Paschke  
PSC Managing director

Garnett et al. (2013). Sustainable Intensification in Agriculture: Premises and Policies. *Science* 341: 33-34

European Commission – Standing Committee on Agricultural Research (SCAR). Foresight on Sustainable food consumption and production in a resource-constrained world

Steffen et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science* 347: 736

Tomich et al. (2011). Agroecology: A Review from a Global-Change Perspective. *Annual Review of Environment and Resources* 36: 193-222

Wezel et al. (2014). Agroecological practices for sustainable agriculture. A review. *Agronomy for Sustainable Development* 34:1–20

## EUCARPIA - PLENARY DISCUSSION

### Innovation vs. Regulation

Timothy Sykes

During the recent general congress of the European Association for Research on Plant Breeding (EUCARPIA) I had the pleasure of mediating a lively discussion entitled: 'Innovation vs. regulation - Facilitating access to germplasm and release of innovative cultivars.' Broadly this discussion was focussed on emerging plant breeding techniques in the context of reviewing existing regulations along the food production chain, taking into account the interests and concerns of a diverging range of stakeholders: breeders (and other holders of intellectual property rights), variety testers, seed producers and merchants, farmers, consumers and environmental agencies. In order to facilitate a meaningful, diverse and interesting discussion we invited seven panel members from different stakeholder groups. The full range of topics covered and the varying opinions of the panel and audience members cannot all be covered here, so rather what follows is a summary of the key points



made and who made them.

The first member of the panel, **Richard Visser**, the incoming president of EUCARPIA and head of the laboratory of plant breeding at Wageningen University, represented academics on the panel. Richard's main hope for the future was that plant breeders would have available to them all new innovations and techniques in order to more efficiently breed new plant varieties. Such a holistic approach to plant breeding was not the focus of **Edith Lammerts van Bueren**, a senior researcher at the independent Louis Bolk Institute for Organic Agriculture and pro-

fessor of organic plant breeding at Wageningen University. She stated that within the organic community a different approach to risk perception has led to a unique view on health and environmental concerns, thus the organic community does not intend to use any new plant breeding techniques (NPBTs) that affect a plant on a DNA level. She did make an exception for diagnostic tools such as marker assisted selection. Edith did, however, have a holistic approach to plant breeding regulations, stating the importance that regulations leave space for alternative breeding concepts and not just dominant ideas.

A desire for a collaborative approach to plant breeding regulation was shared by **Eva Reinhard**, the deputy director of the Swiss Office of Agriculture (FOAG) and head of the production systems and ecosystems directorate, who outlined the FOAGs vision that only a close collaboration between science, farmers, retailers, food industry, and consumers will allow the goal of sustainable agriculture and food security to be reached. She

revealed that to this end the FOAG have been working very closely with stakeholders over the last two and a half years on a unified plant breeding strategy for Switzerland. The FOAGs goal of a national plant breeding strategy was also mentioned by **Stephan Scheuner**, the managing director of Swiss Granum, an umbrella organization concerned with cereals, oilseeds and protein crops that combines organizations of production, collection centres, trade, and fabricators. He called for clarity within this strategy as to the handling of NPBTs, including pointing out difficulties of quality control at the seed testing level given that varieties developed using NPBTs may be

indistinguishable from conventionally bred crops.

Another panel member who called for clarity regarding the regulation on NPBTs, albeit on a global level, was **Michael Keller**, the secretary general of the International Seed Federation (ISF). The ISF represents the interests of the seed industry at a global level and as such is involved in the development of new varieties that can involve up to seven different countries on four different continents. Michael not only highlighted the importance of global consistency with plant breeding regulations across countries, but also pointed out the need for consis-

tency across time, as the breeding process can take many years in some crops and breeders need to know in advance what regulation will be applied. Likewise, **Peter van der Toorn**, who as the head of vegetable breeding at Syngenta seeds similarly works within an international community, also spoke about international regulation. His comments were mainly focussed on the Nagoya Protocol, an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way by regulating the movement of genetic resources globally. Peter revealed that, within a commercial setting, the Nagoya Protocol is making it nearly impossible to access some genetic resources and that this was leading his division to pursue NPBTs in order to manufacture the necessary genetic diversity for their breeding programs. He also pointed out, echoing comments from other panel members, that clarity of regulation of NPBTs on a global scale was necessary, even going further to say that if regulations make using these techniques too costly it would make it very difficult for breeders to continue to innovate.

Perhaps the most interesting moment of the discussion occurred when an audience question regarding the applicability of plant variety protection (PVP) laws given the rapid variety turnover seen in plant breeding today, was put to the panel. **Stephanie Frank**, the CEO of the family owned breeding company Saatzucht Oberlimpurg as well as the president of the Confederation of German Plant Breeders, who is also an expert intellectual property law, spoke about how PVP is affective because not only can other breeders use your varieties but you theirs. This leads to a cycle of innovation which is beneficial to all breeders, as long as there is a diversity of breeders. She also pointed out that neither new plant varieties nor plant related

technical innovations are patentable in Europe. This led to a discussion about patenting plant varieties, where Peter suggested that if a new variety were augmented with specific genes that conferred novel traits that variety would be patentable, and Stephanie insisted that this is just a derived variety and hence covered by PVP.

These are just some of the many important points that were made during the discussion that sit at the heart of the innovation/regulation balance. In this hour-long discussion we did not solve the problem of how plant breeding should be regulated to ensure continuing innovation into the future, but we did manage to highlight the importance of involving all concerned parties, and the main areas where difficulties may arise. The whole concept of how innovation and regulation are interconnected was summed up perfectly by Stephanie when she said that

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**“plant varieties are the vehicle where by  
innovation comes to the farmer.”**

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It is this idea, of beneficial innovation flowing from breeding programs to farmers and eventually consumers through regulatory frameworks, which must be central to any regulation of plant breeding into the future. Failure to keep this point paramount by allowing ideologies, commercial interests, political opinions, research goals or intellectual property rights to become predominant factors, will lead to regulations that do not have the interests of sustainable agriculture and food security at their heart.







Native potatoes from Chiloé island  
© Luzian Messmer

### About CREAS

CREAS is located in the Valparaíso region and is the main research center in Chile focused on food and health issues. Among the R&D activities performed by the center are the development of technologies for obtaining bioactive compounds from different food matrices.

[www.creas.cl/en/nosotros/creas/](http://www.creas.cl/en/nosotros/creas/)

## Valorising genetic resources: ancestral potatoes can help to fulfil the needs of modern societies

**GUILLAUME LACAVÉ**

My secondment was carried out in Chile in collaboration with María Elvira Zúñiga, professor of industrial engineering at the Pontificia Universidad Católica de Valparaíso, and director of the Regional Centre for Studies in Food and Health (CREAS) in Valparaíso.

The aim was to screen potato genetic diversity for its response to drought stress, in terms of yield but also in terms of the bioactive and nutritional quality of the harvest. Sixteen potato landraces from Chile were grown under three different water regimes. After harvest, the yield was assessed for all genotypes, and a subset of 9 genotypes was analysed for its content in chemical components interesting in human health (polyphenols, antioxidants, fibers and resistant starch). Under the hypothesis that the lack of water will induce contrasted biosynthesis of bioactives, we investigated the potential damages or benefits of the two water regimes. This field experiment could not be performed in Switzerland

because of the regulations on biosafety. Indeed, native potatoes from Chile were considered risky in terms of potential introduction of new pathogens in Switzerland, even though the plant material was certified and came from gene banks. With the help of Luzian Messmer, bachelor student at the ETH Zurich, I also conducted a feasibility study on the receptivity of the Chilean market to innovative potato products naturally enriched in anti-oxidants. The interest in more colourful potato foodstuffs (red, purple) was also investigated.

This feasibility study took place in two steps, first through a qualitative assessment of the context and market with important Chilean stakeholders, then through a semi-quantitative study directly with consumers.

The field work in Chile produced interesting data for publication, but also allowed me to understand the economic and social environment of this country. My professional ambitions will probably

lead me to the international scene, and this experience could open my perceptions on new cultures, organisational systems, and language. These insights will be precious in my future career.

The secondment allowed me to coordinate an international research project with several partners and stakeholders. Such a project requires communication and project management skills, combined with a sound scientific background. Additionally, as my secondment was located in Chile, it gave me the opportunity to learn and practice Spanish as a third language.



Field work with high UV protection



Drought stress experiment, Valdivia Chile

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Our approach was published in Chilean media

[www.diarioeldigital.com/2016/01/20/experto-frances-estudia-el-crecimiento-y-las-propiedades-bioactivas-de-la-papa-nativa-sometida-a-estres-hidrico/](http://www.diarioeldigital.com/2016/01/20/experto-frances-estudia-el-crecimiento-y-las-propiedades-bioactivas-de-la-papa-nativa-sometida-a-estres-hidrico/)

[www.elinformador.cl/index.php?idnoticia=39576](http://www.elinformador.cl/index.php?idnoticia=39576)

[www.mundoagropecuario.com/experto-frances-estudia-el-crecimiento-y-las-propiedades-bioactivas-de-la-papa-nativa-sometida-a-estres-hidrico/](http://www.mundoagropecuario.com/experto-frances-estudia-el-crecimiento-y-las-propiedades-bioactivas-de-la-papa-nativa-sometida-a-estres-hidrico/)

And at the CREAS website

[www.creas.cl/papas-nativas/](http://www.creas.cl/papas-nativas/)



# How much do farmers rely on pollination services?

## CHARLOTTE PAVAGEAU

Beekeeping can help farmers to increase their productivity, while providing them with delicious honey. However, in South India very few coffee farmers are implementing this strategy, as many wild pollinators are already performing the same task. But for how long? As the landscape is changing, pollinators might change too. My project explores how farmer practices and the environment influence pollination services. Our aim is to promote the idea that pollinators can provide important benefits to farmers and should be taken into account when farmers make decisions on their plantations.

During my secondment, I worked with Prof. Uma Shaanker, who is an expert in population genetics at UAS Bangalore. He is also the co-founder of the research NGO Ashoka Trust for Research in Ecology and the Environment (ATREE) and has experience in promoting conservation practices together with local communities. Together, we implemented an innovative approach to estimate foraging pattern of giant honeybees. By using genetic markers, we could have a better idea on how pollinators are using resources in the landscape. In particular, we found that the giant honeybees can travel up to 1.5 km, more than what was previously assumed. These wild bees could play the role of rescue pollinators, potentially compensating for the decline of other pollinators in degraded tropical landscapes. The results of this study also generated new evidence that validates the hypothesis of my pollination model developed at ETH Zurich.

We also organized a local workshop that brought together different stakeholders to discuss the benefits of various ecosystem services in coffee plantations. Stakeholders included coffee farmer associations, as well as extension services,

beekeeping associations, large private companies and scientists. The objective of the workshop was to engage in a discussion with these stakeholders on the future of coffee landscapes and their perceptions of ecosystem services. For example, we learnt that pollination services were not perceived as important as fertility or erosion issues within plantations. While all these services are jointly contributing to coffee productivity. Conserving native trees within plantations is part of the solution, but this is surely still dependent on how it is integrated with other management practices. Coffee agroforestry systems can be very complex and stakeholder workshops are important forums that can help both practitioners and researchers have a wider view of the full picture. This secondment has helped strengthened my research approach by investigating new aspects of pollination services. I particularly enjoyed engaging with local actors to better understand their motivations. Through this engagement, I gained insights on the challenges for reconciling conservation and agriculture objectives.

### About UAS

The University of Agricultural Sciences, Bangalore is a recognised agricultural university in India. With extensive experimental stations and farmers training centres, it contributes to develop the agricultural sector at the state level.

[www.uasbangalore.edu.in](http://www.uasbangalore.edu.in)





Workshop on ecosystem services in coffee plantations Bittangala, Kodagu District, India



Farmers discussing results of the study



Local beekeeper

Blog about the workshop

[www.swissnexindia.org/blog/indo-swiss-coffee-connections/](http://www.swissnexindia.org/blog/indo-swiss-coffee-connections/)

ETH Zukunftsblog

[www.ethz.ch/en/news-and-events/eth-news/news/2016/01/beekeeping-to-prevent-the-pollination-problem.html](http://www.ethz.ch/en/news-and-events/eth-news/news/2016/01/beekeeping-to-prevent-the-pollination-problem.html)

## PSC Policy Training Course Scenario-building and Modelling

13-15 Dec 2016, University of Zurich

This three day workshop consists of two components highly relevant to scientific conceptions and visions of the future.

The first two days will focus on scenario-building. It will be organized around a practical workshop allowing students to test the scenario method, specific to foresight practices, through the exercise. The goal is not to perform a real foresight study in just two days, but to ensure that students 1) understand the basic requirements to build consistent and argued scenarios and 2) the different uses of scenario-building. The third day will focus on coupling modelling and scenario-building building through a role-playing game experiment. We will play the ReHab game that mimic a specialized tragedy of the commons.

Lecturers: Véronique Lamblin, Foresight and Strategy Studies Director Futuribles (Paris, France)  
Dr. Claude Garcia, Forest Management and Development, ETH Zurich

## PSC Policy Workshop Building Political Support

Feb 7 & Mar 8 2017

University of Zurich and Berne

During the last decades different ways of bridging science and policy have been explored. Policy is understood as a principle or guideline for action in a specific context. In this course, the students shall learn what kind of actions is necessary to implement policies in different sectors, such as public agencies, the civil society or the private sector. Who are the main actors and when do they need to be involved?

Lecturers: Sarah Bütikofer, Global Governance, ETH Zürich  
Marcel Falk and Urs Neu, Swiss Academy of Sciences

Registration:

[www.registration.ethz.ch/spsw](http://www.registration.ethz.ch/spsw)

### Mentoring

Careers in Science and Policy, or both? (1 ECTS)

Sep 29, Oct 11, Oct 25, Nov 8, Nov 22, Dec 6, 2016 (17.15 – 20.00), ETH Zentrum

This course offers a perspective on possible career paths at the interface of science with policy. Input-talks are followed by discussion rounds. Recent graduates from the PSC PhD program Science and Policy and other professionals will reflect on their career paths in government, politics, NGOs or private companies. In the discussions, we will elaborate with the speakers on what kind of skills, experiences and qualities are sought in the respective sector. We will learn what their responsibilities and impact are and what their working day looks like. The participants are invited to prepare questions. There will be good opportunities for networking.

### GUEST SPEAKERS

**Simon Briner**

Federal Office for Agriculture FOAG

**Franziska Humair**

Federal Office for the Environment FOEN

**Claudia Boelter**

KWS SAAT AG

**Sabine Perch-Nielsen**

Ernst Basler + Partner

**François Meienberg**

Public Eye, Bern Declaration

**Friedrich Wulf**

Pro Natura, Friends of the Earth

**Dominik Klauser**

Syngenta Foundation

**Eva Spehn**

Swiss Biodiversity Forum, SCNAT

**Michele Garfinkel**

European Molecular Biology Organization EMBO

**Thomas Marty**

Berinfar AG

**Mike Hoffmann**

International Union for Conservation of Nature and Natural Resources IUCN

**Claude Garcia**

ETH Zurich, Agricultural Research Centre for International Development CIRAD



## PSC Policy Workshop Science Communication

May 8 and 22, 2017, University of Zurich

Scientists in all fields are expected to perform public outreach occasionally on matters ranging from research funding to assist policy-makers in taking decisions. In doing this, they face particular challenges. Challenges range from being clear, convincing, accurate, and, at the same time, engaging. Academic researchers play an essential role in allowing policymakers to develop and properly assess science policy options, speaking to the media, and contributing to the improvement of public's critical thinking. If advised and coached appropriately they can engage in a true dialogue that enhances mutual understanding between academia and the general public.

Lecturer: Jacopo Pasotti, science journalist, [www.jacopopasotti.com](http://www.jacopopasotti.com)



## Seminar Tef - the cereal that feeds Ethiopia

Oct 25, 2016, ETH Zurich, HG E 23, 15-17:30

hosted by: Prof. Samuel Zeeman, ETH Zurich

Tef is an important food grain in Ethiopia, where it is used to make injera or keyta. *Eragrostis tef* has an attractive nutrition profile, being high in dietary fiber and iron and providing protein and calcium. However Tef has not benefitted from the green revolution and there are many research possibilities. Additionally, a socio-economic issue is that Tef is in danger of becoming a gluten-free fashion superfood in the Global North, leading to possible food shortages among the 94 million people who rely on it as a staple.

### Speaker

**Dr. Kebebew Assefa**, Ethiopian Institute of Agricultural Research, Addis Ababa  
*Tef breeding and the socio-economic impacts of globalization of Tef in Ethiopia*

**Dr. Zerihun Tadele**, University of Berne  
*Improving an African orphan crop through public-private partnership*

**Wuyan Wang**, IDP BRIDGES fellow, ETH Zurich  
*Improving starch diversity in Tef crop*

**Samuel Hauenstein**, ETH Zurich  
*Assessing the resilience of the Tef value chain in Ethiopia*



Tef is an important food grain in Ethiopia, where it is used to make injera or keyta. © Wuyan Wang

# 3rd ANNUAL MEETING

26 OCT 2016

- 9:15 – 10:00** **Keynote talk: Chrissie Rey, University of the Witwatersrand**  
*Are scientists and policy makers compatible? Focus on agricultural biotechnology and food security in developing countries*
- 10:00 – 10:15** **Devang Mehta:** Lab to field—engineering geminivirus resistance in cassava
- 10:15 – 10:30** **Yuanyuan Huang:** Diversity and primary productivity in subtropical forests – fixing carbon to mitigate climate change
- 10:30 – 10:45** **Arianna Nigro:** Unravelling traits contributing to salinity tolerance in *Arabidopsis thaliana* using high-throughput phenotyping
- 10:45 – 11:00** **Wuyan Wang:** Developing starch diversity in the orphan crop tef
- 11:00–11:30** *Coffee break*
- 11:30 – 12:15** **Keynote talk: Kebebew Assefa, Ethiopian Institute of Agricultural Research, EIAR**  
*Self portrait, institutional profile and experience-based insights on science-policy dialogue*
- 12:15 – 12:30** **Timothy Sykes:** Cytoplasmic male sterility and restoration of fertility in *Lolium perenne*
- 12:30 – 12:45** **Silvia Turco:** siRomics for universal diagnostics of plant viral disease and virus diversity studies
- 12:45 – 13:00** **Michael Thieme:** Using epigenetics to improve breeding for the organic sector
- 13:00 – 13:15** **Lukas Schütz:** How reliable are microbial inoculants in agriculture for improving nutrient use efficiency and growth promotion? A meta-analysis of field studies from 1981 to 2015
- 13:15–14:30** *Lunch*
- 14:30 – 15:15** **Keynote talk: María Elvira Zúñiga Hansen, Centro Regional de Estudios en Alimentos y Salud, CREAS**  
*CREAS, supporting the regional community using science and technology in healthy foods*
- 15:15 – 15:30** **Guillaume Lacavé:** Native potatoes from Chile: genetic resources as a contributor to food security
- 15:30 – 15:45** **Claudia Hahn:** Seasonal effects of drought on the productivity and fodder quality of temperate grassland species
- 15:45 – 16:00** **Charlotte Pavageau:** Co-production of pollination services: it is not just about bees
- 16:00 – 16:15** **Luisa Schäfer:** Silencing of powdery mildew genes for the improvement of disease resistance in wheat
- 16:15 – 17:00** *Coffee break*
- 17:00 – 18:00** **APs, Pls: Supervisory Board Meeting**

**Fellows: IDP BRIDGES meets Mercator** – Introducing new PhD students to the Science and Policy Program (mentoring)

**19:00** *Joint Dinner*

## PhD Retreat

All fellows present their research results and discuss their PhD projects together with supervisors, associated partners and peers in the light of the interface of science and policy-making.

## IDP BRIDGES meets Mercator

In summer 2016, 4 new Mercator fellows will join the PSC as well as the PhD program Science and Policy. At this mentoring event the new fellows will introduce themselves and their projects to their advanced colleagues in the program. The aim is to share ideas and advice about the program, the courses, and to highlight challenges and opportunities.

## Website

[www.plantsciences.uzh.ch/research/fellowships/idpbridges.html](http://www.plantsciences.uzh.ch/research/fellowships/idpbridges.html)

## Contact

Luisa Last, [llast@ethz.ch](mailto:llast@ethz.ch)

## Location

Botanical Garden University of Zurich



Consortium: ETH Zurich, University of Zurich, University of Basel  
 Coordinator: Prof. Samuel C. Zeeman, ETH Zurich  
 Project Management: Dr. Melanie Paschke, Zurich-Basel Plant Science Center  
 Project Officer: Dr. Luisa Last, Zurich-Basel Plant Science Center  
 Financial Administration: Romy Kohlmann, Zurich-Basel Plant Science Center

## Principal Investigators

**ETH Zurich:** Dr. Eduardo Perez, PD Dr. Hervé Vanderschuren, Prof. Achim Walter, Prof. Samuel Zeeman, Prof. Bruno Studer, Prof. Jaboury Ghazoul  
**University of Basel:** PD Dr. Mikhail Pooggin, Prof. Thomas Boller, Prof. Ansgar Kahmen, Prof. Jürg Stöcklin  
**University of Zurich:** PD Dr. Diana Santelia, Prof. Bernhard Schmid, Prof. Pascal Niklaus, Prof. Ueli Grossniklaus

## Fellows

**ETH Zurich:** Guillaume Lacavé, Devang Mehta, Wuyan Wang, Timothy Sykes, Lisa King, Charlotte Pavageau  
**University of Basel:** Silvia Turco, Claudia Hahn, Michael Thieme, Lukas Schütz  
**University of Zurich:** Arianna Nigro, Yuanyuan Huang, Margarida Sofia Nobre

## Associated Partners

**Dr. María Elvira Zúñiga** - Centro Regional de Estudios en Alimentos Saludables, Chile  
**Prof. Maria Emma Christine Rey** - University of Witwatersrand, South Africa  
**Dr. Monika Messmer, Dr. Lucius Tamm and Dr. Paul Mäder** - Research Institute of Organic Agriculture, FiBL, Switzerland  
**Dr. Willy Kessler, Dr. Andreas Lüscher and Dr. Olivier Schumpp** - Agroscope Reckenholz, Switzerland  
**Dr. Klara Simkova** - PSI, Czech Republic  
**Dr. Kebebew Assefa** - Ethiopian Institute of Agricultural Research, Ethiopia  
**Dr. Zerihun Tadele** - University of Bern, Switzerland  
**Dr. Torben Asp** - Aarhus University, Denmark  
**Prof. David S. Wilcove** - Princeton University, USA  
**Dr. Uma Shaanker** - ATREE, India  
**Prof. Ma Keping** - Chinese Academy of Sciences, China  
**Dr. Richard Jefferson** - CAMBIA, Australia  
**Prof. Lian Pin Koh** - University of Adelaide, Australia  
**Dr. Etienne Bucher** - Institut de Recherche en Horticulture et Semences, France

## Mentors

**Dr. Gerlind Wallon** - EMBO Deputy Director, Manager for Women in Science Activities, EMBO Young Investigator Program  
**Dr. Michele Garfinkel** - EMBO Science Policy Program  
**Regina Ammann** - Head of Public Policy, Syngenta International AG  
**Dr. Gunter Festel** - FEESTEL CAPITAL  
**Dr. Eva Spehn** - Swiss Biodiversity Forum SCNAT, Global Mountain Biodiversity Assessment of DIVERSITAS, University of Basel

## Work Package MANAGEMENT

**Lead: Dr. Melanie Paschke**

## Work Package RESEARCH

**Lead: Prof. Samuel C. Zeeman**

## Work Package TRAINING

**Lead: Dr. Melanie Paschke**

## Work Package EXPLOITATION

**Lead: Dr. Manuela Dahinden**

## Work Package OUTREACH

**Lead: Dr. Manuela Dahinden**



IDP BRIDGES is an Innovative Doctoral Program supporting 14 PhD students' work in the most challenging areas of the plant sciences and policy. This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no PITN-GA-2013-608422 – IDP BRIDGES. The project is coordinated by the Zurich-Basel Plant Science Center - a competence center linking and serving the plant science research community of the University of Zurich, ETH Zurich and University of Basel.

Our twice-yearly newsletter is distributed to all IDP BRIDGES participants and other interested people. It provides information about scheduled training and outreach events as well as highlights of significant research results and policy outcomes.

Contributions are always welcome! If you are interested in contributing to the next issue, please contact [llast@ethz.ch](mailto:llast@ethz.ch)

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