



Universität
Zürich^{UZH}

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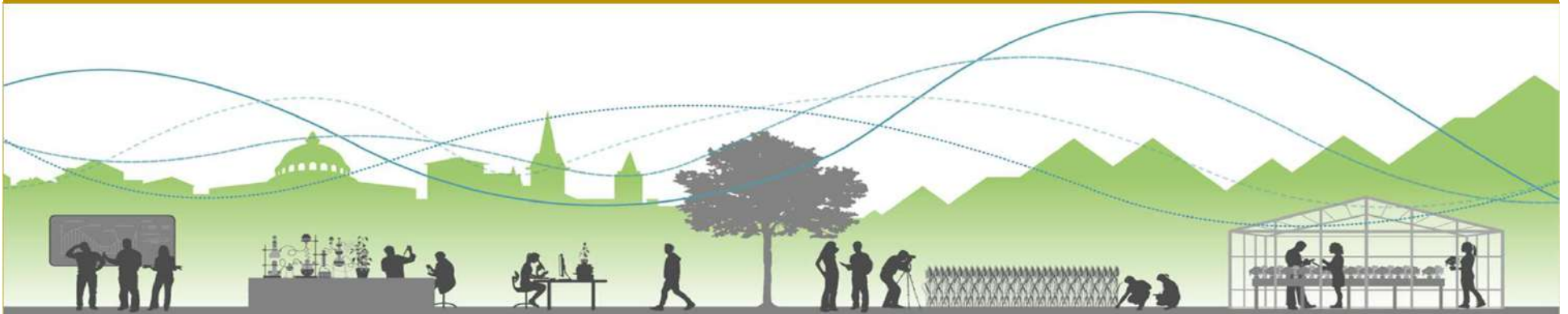
Universität
Basel

Zurich-Basel Plant Science Center



New ways of early-stage scientists to contribute to the science-policy dialogue and how to prepare them – the ETH Zurich, University of Zurich and University Basel example

28 August 2019, Dr. Melanie Paschke, Zurich-Basel Plant Science Center, paschkme@ethz.ch



1a - PSC



Research



Education



Outreach

- The **Zurich-Basel Plant Science Center (PSC)** is a competence center that links and supports the plant science research community of the University of Zurich, ETH Zurich and the University of Basel.
- 600 members
- Research fellowships
- 2 PhD Programs: Science & Policy, Plant Sciences



1b - Intro

Can scientists push evidence to policymakers through linear translation processes? This has been questioned for many years.

How can (early-stage) scientists contribute with evidence to the policymaking process?

“Science can underpin good policy, but rarely defines it.”



A protest in Brussels ahead of the European Union's vote to ban neonicotinoid pesticides in April 2018.

How your science can shape policy

Nature 2018



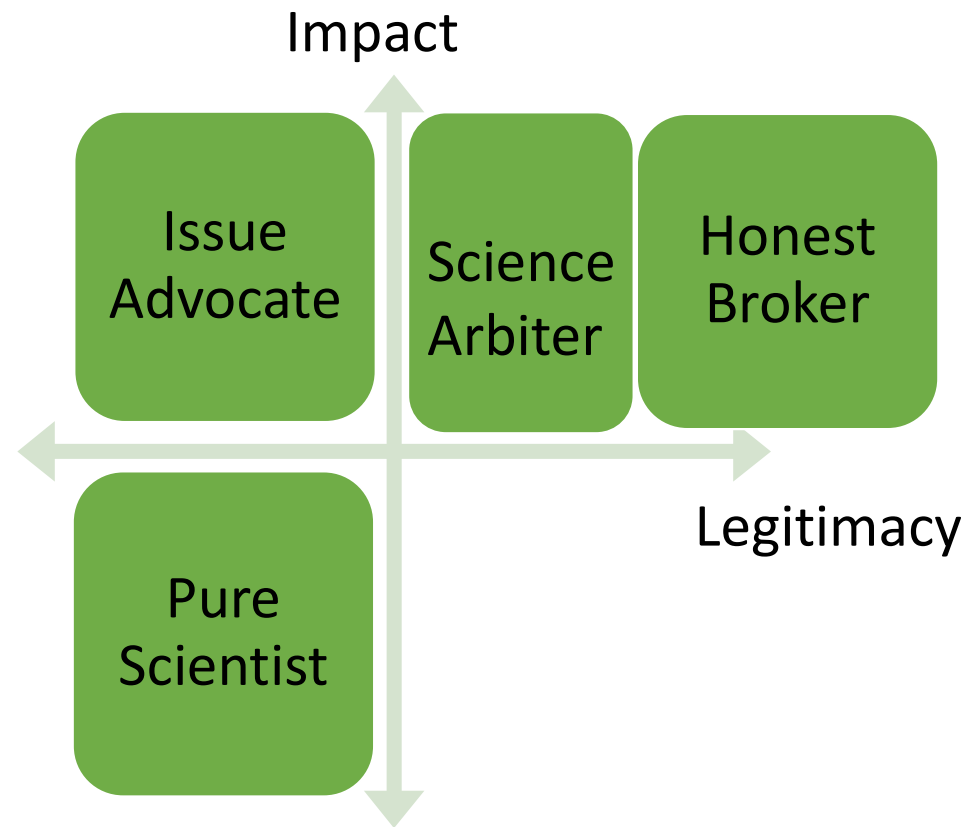
2 - Policy Work is Boundary Work



Translation



3 - Scientist's Roles in Policymaking



Pielke, 2007

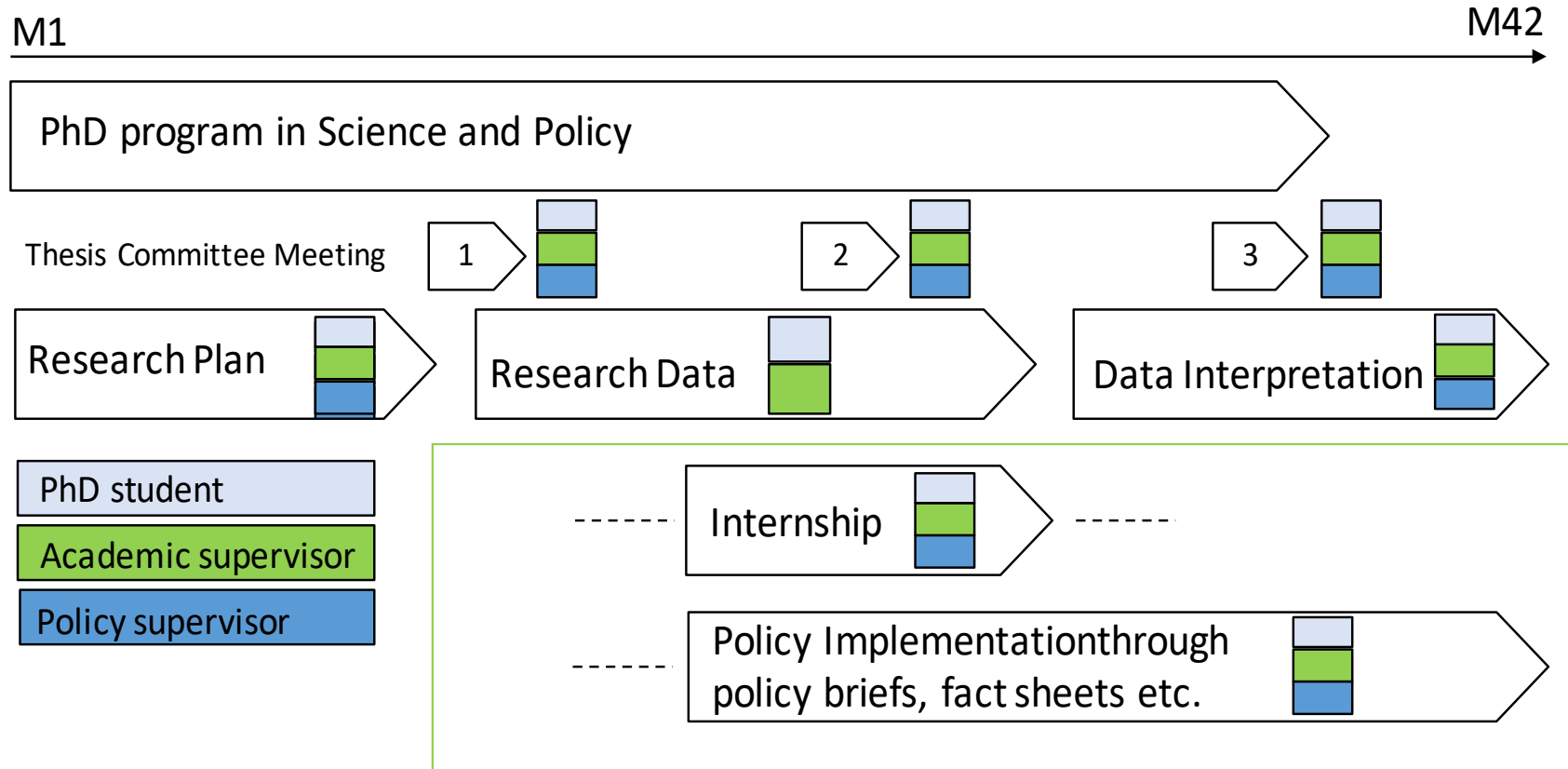


4a – Exemplary formats

- **In-deep training** on how to interact with policymaking processes.
Possible formats: workshops, summer schools curricular programs
- **Fellowship program during PhD with integrated internship:** PSC Science and Policy fellowships at **Science-Policy Boundary** organization
- **Sabbatical programs with associated fellowships (normally after completed PhD):** WISSENSCHAFTLICHE POLITIKSTIPENDIEN at Swiss Parliament; Research fellow at the EC's Joint Research Centre



4b - PSC PhD Program and Fellowship Program: Science in Policy



5 - PSC Science in Policy Training Curriculum: 12 ECTS



Zürich - Basel Plant Science Center

Guidelines for the PhD Program
Science & Policy
Specialized PhD Program for Life Sciences,
Earth Sciences and Agricultural Sciences



Curriculum

Policy workshops

2 ECTS each

Evidence- based policymaking

Stakeholder engagement

Communicating science

Building political support

Contributing to policy action

Understanding policy evaluation

Policy skill training

1 ECTS

System thinking

Scenario-building and modelling

Introduction to political sciences

Lecture or course, 1 ECTS

Mentoring courses

1 ECTS

e.g., Careers in science or policy, or both?

6 - PSC Science in Policy: Key numbers

- Up to **60 PhD students** registered (2018)
- **32 fellowships** (2018)
- **15 internships** or close collaborations with policy partners:
 - e.g. IUCN (CH), Swiss federal offices for the environment and for agriculture (CH), Swiss Biodiversity Forum, Ashoka Trust for Research in Ecology and the Environment (ATREE, India)
- Internships are **1 – 10 months**

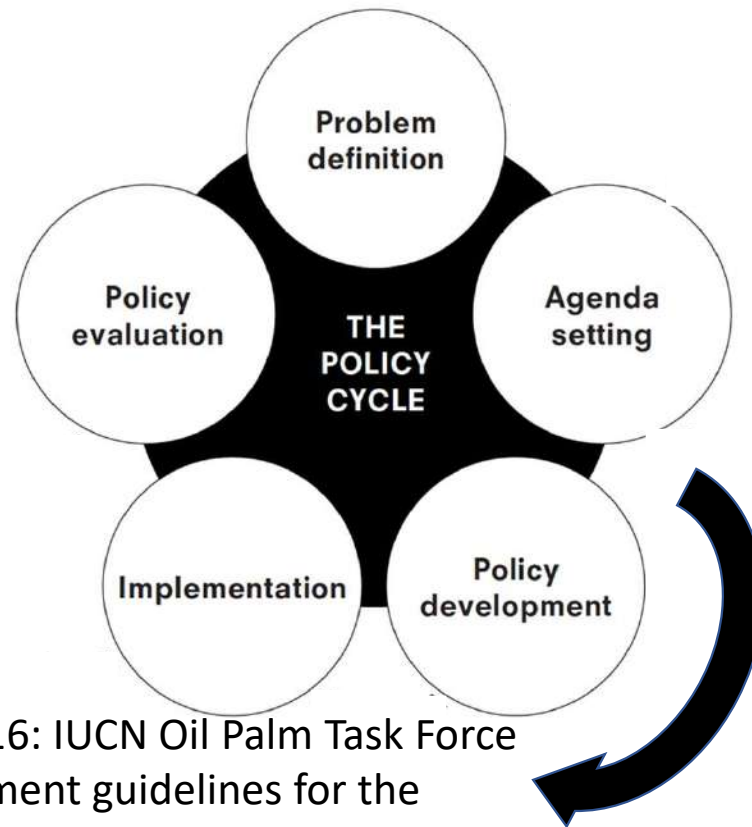


7a - Policy Cycle and Involvement of Fellows

John Garcia-Ulloa



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Since 2016: IUCN Oil Palm Task Force to implement guidelines for the protection of biodiversity in oil-palm landscapes



2011 – 2015: PhD at ETH Zurich, IUCN: **Scenarios** for biodiversity change in oil-palm landscapes

2018: IUCN Policy Report: Situation Analysis

Meijaard, E., Garcia-Ulloa, J., et al. (2018).

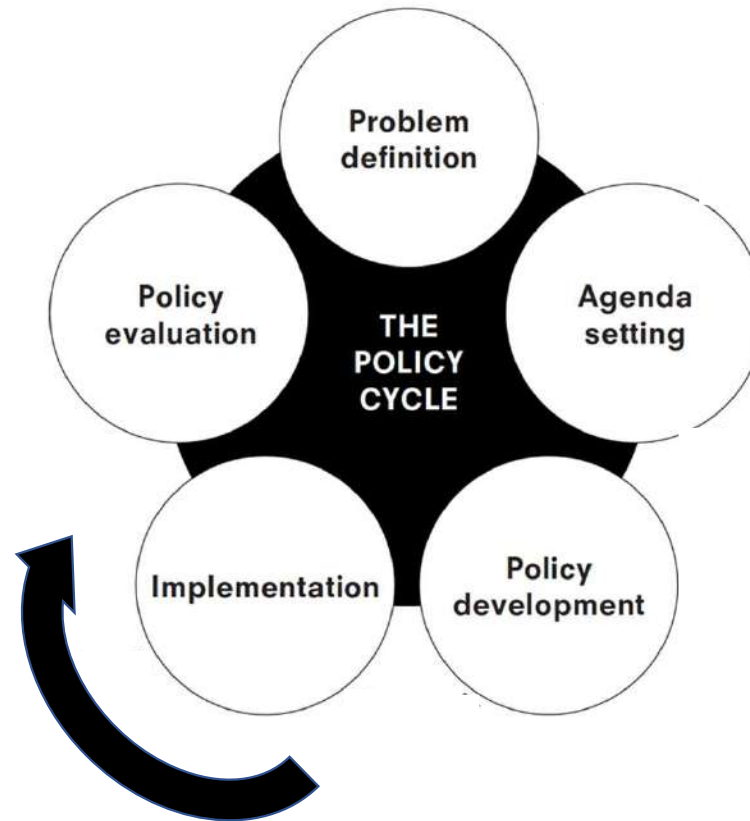


7b - Policy Cycle and Involvement of Fellows



2016 – ongoing: **Acceptance as a forensic tool** in international and national jurisdiction

2011 – 2015: PhD at ETH Zurich, Zoo Zurich: **Development of molecular detection tool for illegally logged Madegascarian rosewood.**



Sonja Hassold



8a - Does it work? Delphi study 2017 (Gaia 2019, forthcoming)

Preparing early-stage researchers for science-policy boundary work, and embedding them in experiential learning environments through internships, facilitates boundary-crossing in their later work.

- Respondents highlighted the opportunities to obtain a new skill sets and expertise to provide relevant and timely evidence.



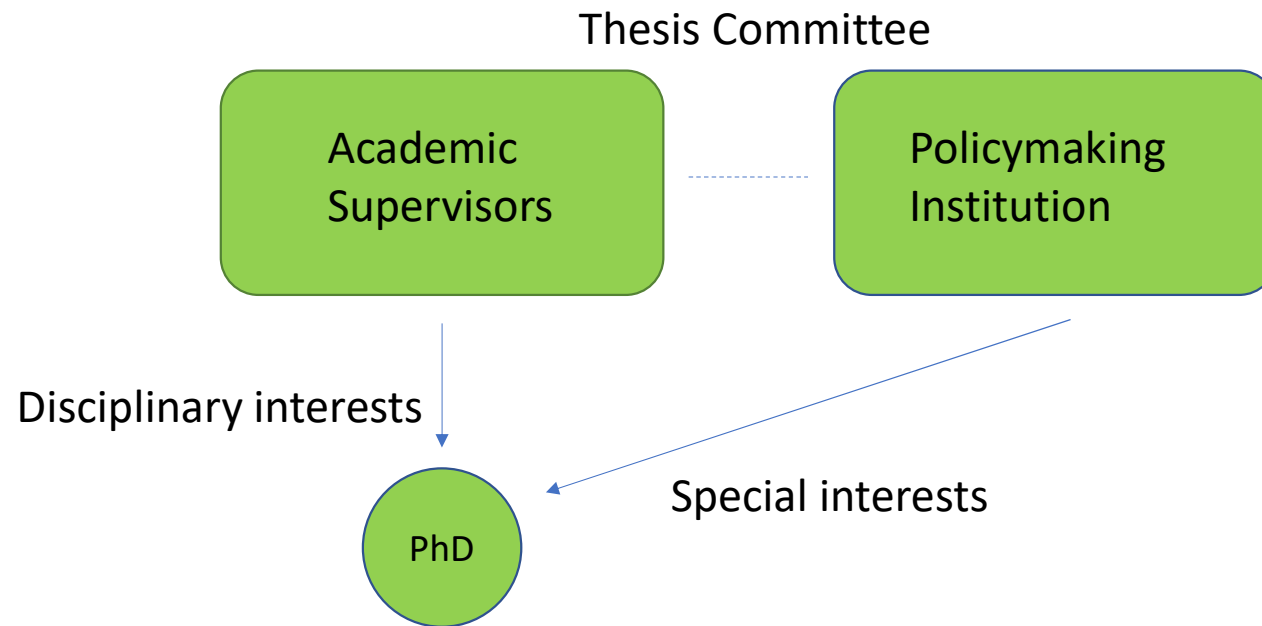
8b - Does it work? Delphi study 2017 (Gaia 2019, forthcoming)

Challenges:

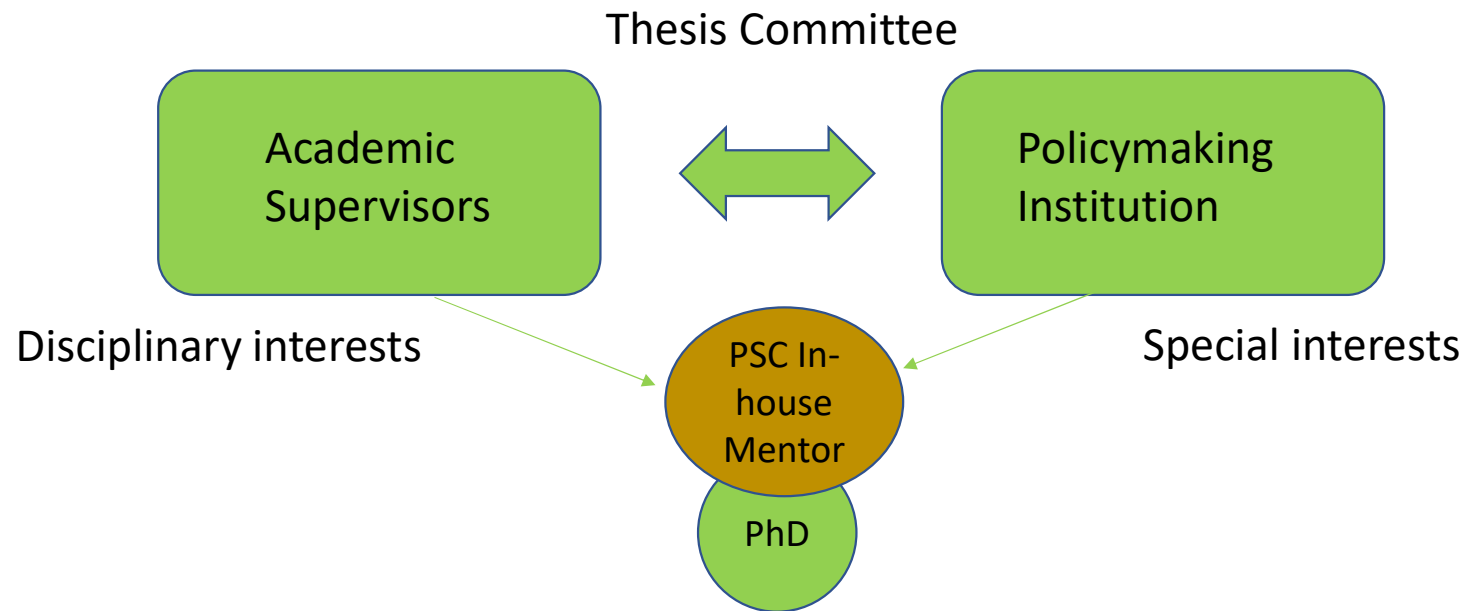
- **Time frame** available for policy work in the PhD thesis is **limited**.
- **Different incentive systems**: Time-consuming policy work will not be rewarded in the same way as a high-profile scientific publication in the record of early-stage scientists (Rosen 2018).
- **Different legitimation processes**: Credibility of scientific evidence validated within the scientific community versus agreement by society.
- **Different time scales in science and policy**: >5–20 years to generate impact with research in policy work.



9a - Recommendations

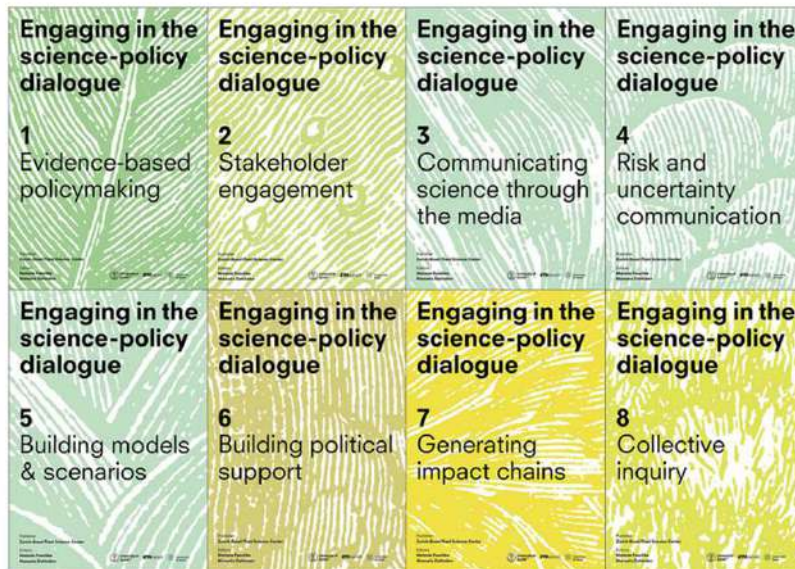


9b - Recommendations



More information

Paschke & Oborune (2019). Contributions to Science-Policy Boundary Work as Early-Stage Researchers: Recommendations for teaching, internships and translation work, Gaia 4, forthcoming.



<https://www.plantsciences.uzh.ch/en/publications/sciencepolicyworkbooks.html>



Thank you!

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Mercator Foundation Switzerland, 2011 – 2016
Mercator Foundation Switzerland, 2015 – 2020



**Marie Skłodowska-Curie Actions
(MSCA), Co-funding of Regional,
National, and International
Programmes (COFUND)**

FP7-PEOPLE-2013-IDP BRIDGES /Marie Curie Initial Training Networks (ITN),
2014 – 2017
EU Joint Research Centre - Collaborative Doctoral Partnerships, 2019 – 2022
H2020-MSCA-COFUND-2018, 2020-2025

