



Newsletter from the European Plant Science Organisation



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About EPSO

Scientists, students, companies and farmers across the world prepare to celebrate the 5th Fascination of Plants Day around the 18th May – join the initiative!



Fascination of
Plants Day
May 2019

The 18th of May will be the 5th international [Fascination of Plants Day](#), organised under the umbrella of EPSO to celebrate plants in all their diversity and wonder.

This is your chance to bring your research to the wider public, and in order to celebrate in the best possible way, we ask you to join in!

Already over 44 countries have confirmed their participation. Many plant science institutions, universities, botanical gardens, and museums, together with farmers and companies, will open their doors with a variety of plant-based interactive events for all the family. Find out what will happen near you and whom to contact at <https://plantday18may.org> and on your country's page.

The goal is to get as many people as possible around the world fascinated by plants and there are many ways to hold interactive events. Get inspired by the [Success Stories from 2017](#), a selection of the over 1.000 events from across the five continents.

You may choose a theme, e.g. from the major contributions plant science can make to reach the UN Sustainable Development Goals – including food and nutritional security, to tackle climate change, and how we can be at frontiers by combining tradition with innovation to increase diversity.

You may also get involved online; we encourage you to share fascinating facts about plants, interesting information about your research, pictures and videos of plants and of you with them by using the hashtag [#PlantDay](#) and/or sending us a video to upload to our [YouTube channel](#).

We look forward to everyone from school children to professors enjoying the day, and you can help for the fascinating world of plants to be broadcast to the wider public through local and national newspapers, television and radio.

EPSO provides you with the HQ publicity tools and the necessary information for free via our [PR toolbox](#). You are invited to download the flyer and poster templates and, where appropriate, to replace the English text with the one in your national language, as well as include yourself as a contact person who will inform about and coordinate Plant Day activities across your country.



Contacts: [Karin Metzlaß](#) (Overall coordination); [Przemysław Wojtaszek](#) (European coordination); and [Carmel Edwards](#) (EPSO Publications Officer); [Trine Hvoslef-Eide](#) (Coordination beyond Europe)

EPSO advises on science policy: European Research and Innovation strategy, Horizon Europe and Agricultural tech.

EPSO and its members continue their priority work on science advice to policy in three main areas: improvement towards Horizon Europe (FP9); to the Horizon 2020 Societal Challenge 2 (Bioeconomy) Work Programme 2020; and on New Breeding Technologies.

The European Commission (EC) is discussing with the Member States and the European Parliament its proposal for **Horizon Europe**, the Framework Programme for Research and Innovation to start in 2021, to find a compromise. EPSO is further engaging with these decision making bodies based on its [Position on the next EU Framework Programme for Research and Innovation](#), welcoming support of the successful Open Science pillar, and strongly suggesting for the Global Challenges pillar to close the research and innovation cycle through increasing support for collaborative basic research and to emphasise the importance of plant science in meeting the UN Sustainable Development Goals. EPSO is working on an Annex to the position elaborating on the contributions of plant science to the UN SDGs, following the EPSO workshop on the theme in April 2018 (see page 4).



In December 2018 the European Parliament voted for an increase of the research budget for Horizon Europe to 120B€. The challenge will be convincing the governments (the Council). We encourage all scientists and innovators to sign the 'Petition for an increased EU budget for research and innovation' of ISE, the Initiative for Science in Europe, at <https://double-ri.eu/> for a last wave of signatures for ISE to present to the Council.

In 2018 EPSO made a [Submission to the EC consultation on EU research and innovation missions \(FP9\)](#), suggesting three mission ideas: 1) 1001 Crops – diverse crops for diverse diets and human health and sustainable production, 2) Planty Food – Sustainable agriculture for sustainable food, and 3) Green Bio-Factories – New bioactives for pharma, cosmetics, food and fine chemicals. To this end, EPSO considers with the EC and the Member States how these could feed into the Strategic Programming for Horizon Europe and as appropriate into National strategies.

In addition to these higher-level discussions, the EPSO Working Groups continue their work to provide advice on areas such as plants and microbiomes, horticulture and nutritional security (see following articles).

As a transition towards FP9, the EC is refining further its strategy for the **last year of Horizon 2020** through the respective Work Programmes, jointly with the Member States and stakeholders. EPSO mainly contributes advice to Societal Challenge 2 (bioeconomy) as independent science organisation as well as jointly with industry and farmers as member of the Plants for the Future European Technology Platform (Plant ETP), and

through collaboration with the Joint programming Initiatives FACCE and HDHL.

EPSO highlights in meetings with the EC and Member States contributions from plant science contributing to EU strategic areas such as Food 2030 (EC RTD) and the strategic approach to EU agricultural research and innovation (EC AGRI). Along these lines EPSO experts participated in workshops of the International Bioeconomy Forum on microbiomes led by the EC (Angela Sessitsch / AIT, Uli Schurr / Julich RC) and on forestry led by Canada and New Zealand (Elspeth MacRae / Sci-on).

Contributions from plant science and breeding will be discussed in the 5th workshop of Plant ETP with the **European Parliament** in 2019 as part of the series



"Sustainable growth: unlocking the potential of plants". EPSO

published its [report from the 4th workshop on Plants for human health](#) on 23.5.2018.

EPSO provides **advice as well to national funders in the frame of ERA-Networks**. EPSO is official observer in two ERA-Nets: on Molecular Plant Sciences ([ERA-CAPS](#)), which held the grant holders workshop of their 1st, 2nd and 3rd call projects; and on Sustainable Crop production ([SusCrop](#)), with projects from their first call starting this year. SusCrop and FACCE JPI will hold a joint exploratory workshop on Novel Breeding Techniques and Crops in May 2019 for which EPSO is in the Scoping Working Group, and later on a sustainability and a data workshop. Beyond this, EPSO provides its members information on other relevant ERA-Nets, such as on agriculture with developing countries ([LEAP-AGRI](#)) and on forestry ([ForestValue](#)).

In addition, EPSO continues science advice to policy on **Agricultural Technologies**, including New Breeding Technologies (NBTs). EPSO offered in its [first reaction to the Court of Justice of the EU ruling regarding mutagenesis and the GMO Directive](#) on 26.7.2019 to collaborate with policy makers for an appropriate regulation. EPSO will publish a full statement in the coming days. Along the principle of Open Science, championed by Commission Moedas, EPSO called upon policy makers involved in the Nagoya Protocol / Convention on Biological Diversity (CBD) that [Access to Digital Sequence Information must remain open](#), 26.6.2018. At its meeting in Milano on 27 March, the EPSO Working Group will discuss next actions on the NBTs and on the Nagoya protocol, including meetings with the EC and national authorities.

You can find all EPSO Working Groups and EPSO statements on our new website <https://epsoweb.org> – please **contact us to get involved** and collaborate with us on science advice to policy. The EPSO Representatives will meet for the **General Meeting** in Vienna 12-13.6.2019 to discuss and decide priorities, strategy and main actions for 2019-20 and beyond.

Contact: [Karin Metzlauff](#)

EPSO Working Group on Agricultural Technologies

The [AgTech WG](#) met on Oct 15th in Berlin. The main topics were (i) the presentation of the iPlanta COST action on RNAi in plants and spraying of dsRNA to fight pests, (ii) the best



strategy to promote the EPSO position on digital sequence information (DSI) to the CBD bodies discussing whether DSI should be part of the Nagoya protocol just like physical biological resources and (iii) an assessment of the situation in the member states after the ruling of the European Court of Justice on modern mutagenesis techniques. The WG decided to set up a task force on DSI and to write a statement centered on a scientific approach to regulate genome editing and other mutagenesis techniques.

Contact: [Frank Hartung](#), JKI (DE)

EPSO Working Group on Plants and Microbiomes

12 October 2018, the EPSO Working Group 'Plants and Microbiomes' launched its second workshop at the Max Planck Institute for Plant breeding Research in Cologne, Germany. Twenty experts from academia and industry. Major new plant microbiome initiatives were presented by the participants and a gap analysis was performed based on the recommendations elaborated in the first workshop, which took place in early 2017.

Three breakout groups discussed in particular the needs in regard to standardization, plant-microbiome mechanisms, research strategy & policy and dissemination & legislation. Recommendations on these topics

will be detailed in a report to be published in February. This report will be also provided to



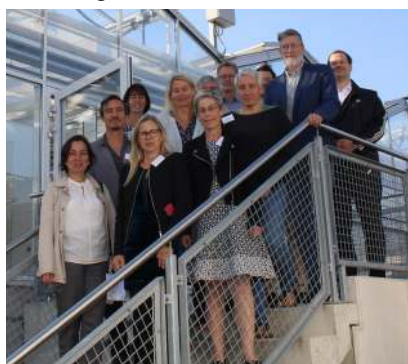
and discussed with the European Commission as well as with national agencies and ministries and will be further elaborated as needed in the next Working Group Meeting in spring 2019.

By Angela Sessitsch, Paul Schulze-Lefert, Stijn Spaepen, Karin Metzloff

Contact: [Angela Sessitsch](#), AIT (AT)

EPSO Working Group on Horticulture

On October 16-17, the 2nd Meeting of the [EPSO Working Group Horticulture](#) took place at the Leibniz Institute of Vegetable and Ornamental Crops (IGZ) in Großbeeren, Germany chaired by Eckhard George and Anja Dieleman.



The aim of this workshop was to update participants on current developments and initiatives of the European Commission in the field of

Horticulture, and to discuss urgent issues in horticultural research with academia, industry and practice along the whole value chain.

Currently the results of these days are integrated into the White paper by rephrasing important issues, highlighting new aspects and pointing to those facts, distinguishing horticulture from agriculture with exceptional significance to research and production across Europe. During the 3rd meeting, which will be organized in 2019, participants and members of the working group are going to discuss further common activities, with special regard to the new Framework Programme 9 'Horizon Europe', focusing on mission-oriented research & innovation within the European Union.

Contact: [Eckhard George](#), IGZ (DE)

EPSO Working Group on Nutritional Security

The [EPSO Working Group 'Nutritional Security'](#) met for its kick-off meeting on November 27th, 2018 in Berlin. The participants - plant scientists and industry representatives from different European countries - met to identify paths to achieve nutritional security in Europe and beyond. To provide effective dietary recommendations, the first task is to generate a deeper understanding of how fruits and vegetables promote and protect human health. Along these lines, the participants discussed the potential of biofortification, the nutritional value of underutilized or neglected fruit and vegetable

crops, and the diversification of crop production as means to implement nutritional security, effectively. It is of high importance to promote policy changes and make economic adjustments that facilitate horticultural production in Europe and make horticultural products accessible as well as affordable, especially to low income groups.



Contact: [Philip Albers](#), IGZ (DE)

EU Project: CHIC

The [CHIC project](#) is a Horizon 2020, 7.3M€ funding programme for **the development and application of New Plant Breeding Techniques (NPBT's) for chicory**. The consortium of 17 participants includes SMEs, an industrial partner, NGOs and research institutes from 11 European countries and one from New Zealand. The project aims at establishing chicory as a multipurpose crop for sustainable molecular farming of products with consumer benefits. During the last 12 months, the main leaders working on the development of four conceptually different NPBTs, managed to progress with the design of transformation constructs expressing guide RNAs, and the implementation of a chicory transformation protocol based on Agrobacterium. The first gene

edited chicory plants have been obtained by several laboratories. Other interesting developments were made within both the [implementation of NPBTs in Chicory](#) for dietary inulin and the implementation of NPBTs in Chicory for bioactive terpenes. A great work has been done in dealing with the toxicologic assessment of the ingredients of chicory and the regulatory assessment of NPBTs in a worldwide comparison.

A GA meeting schedule has been set up 9 months after the start of the project, and an internal Intermediate Reporting schedule, alternating with the 18-month formal Periodic Reports to the EU, have been implemented.



Contact: [Macarena Sanz](#), IDC Consortium (ES)

EU Project: TOMRES

The EU project [TOMRES](#) ("A novel and integrated approach to increase multiple and combined stress tolerance in plants using tomato as a model") started in 2017. In 2018, two project meetings took place. In March, the partners met in Lubljana, Slovenia, and in October, in Mallorca, Spain. Prior to both meetings technical workshops were held for local students and PhDs involved in TOMRES work packages. Each work package has made considerable progress within the last one and a half years.



The close collaboration between the different scientists, practitioners and industry partners

becomes apparent by the exchange of information and material. Currently, a midterm evaluation is under way. Since the project kick-off, partners participated in diverse conferences focusing on agricultural measures, horticultural production and food-quality aspects, such as the International Horticultural Congress, The Plant Biology Europe and The 12th World Congress on Polyphenols Applications. Besides, TOMRES was presented at the 2018 International Trade Fair in Hannover, Germany, which is one of the largest of its kind with over 200,000 visitors. Here, the colleagues from the University of Bonn presented the project and some early results on the selection of stress tolerant tomatoes which grow well under limited water and nutrient conditions.

Contact: [Simone Schmittgen](#), Uni Bonn (DE)

EPSO Workshop "Plant Science and Sustainable Development Goals (SDGs)" in Barcelona, 24.-25.4.2018



The Sustainable Development Goals were officially launched by the United Nations in 2016. The 17 goals shall be reached within 15 years and have been made concrete by 176 subgoals that are

accountable and to which the signing countries and organizations (e.g. the EU) have to report in a regular manner. Thus, they will be recognised in national programs as well as in H2020 and will receive even more attention in Horizon Europe (the next framework program). More information can be found on the [website](#).

The workshop in Barcelona brought together more than 40 EPSO scientists and aimed at (1) making EPSO scientists aware of the SDG, (2) to discuss priorities and (3) ways forward.

Introductory plenary presentations on "SDGs and plant sciences: background, aims, perspectives" (Uli Schurr, Jülich DE), "The SDGs process and the German way to address it" (Falk Schmidt, Institute for Advanced Sustainability Studies, Potsdam, DE), "SDGs in the research of the Netherlands/ Wageningen" (Ernst van den Ende, Wageningen NL) and "SDGs in Mediterranean context" (Giorgio Matteucci, CNR IT) developed the basis for intensive workgroup discussions for 1.5. days. The workgroups discussed the basis of SDGs in the different member states, priorities for plant sciences and ways to implement SDGs in the future. A extended report is planned on this topic.

Contact: [Ulrich Schurr](#), FZ Jülich (DE)

EPSO Working Group

Agricultural Technologies:
27 March, Milan

Contact: [Frank Hartung](#)



EPSO Event

Fascination of Plants Day:
18 May, worldwide

Contact: [Global Coordinators](#)



EPSO Meeting

EPSO General Meeting
12-13 June, Vienna

Contact: [Karin Metzlaß](#)

