



Deliverable 4.2: Web based portal with all relevant information about transnational access

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Executive Summary

Context

EPPN²⁰²⁰ (i) provides Transnational Access to a wide range of state-of-the-art plant phenotyping installations, techniques and methods, (ii) develops techniques and methods in Joint Research Activities, thereby improving the quality in existing facilities across Europe. In total 31 state-of-the-art installations from 15 different institutions across Europe provide access. Transnational Access will be available based on a simple and transparent access procedure. A description of the access procedure and modalities with all relevant aspects have been outlined on the EPPN²⁰²⁰ website.

Objective

An EPPN²⁰²⁰ web-based portal has been established, which includes a description of the access procedure and specifically the description of the Transnational Access installations with all relevant information which allow the user to select and identify the installation that corresponds best to the needs of the user. It is also meant to be a channel for dissemination of the project's results, including from the Joint Research Activities

Main Results:

We have established a web-based portal with information such as:

- Access guidelines for potential applicants with a web-based infrastructure database that includes a description of the installations available for access in EPPN²⁰²⁰ as well as all relevant contact information of access providers.
- Applications for the Transnational Access can be submitted using an on-line submission platform in which all applications are managed. The platform includes detailed guidelines for the applicant, project description, project archive etc.
- A section for access providers, which enables access for the access providers to all projects submitted to their installations.
- A dedicated section for reviewers with all relevant guidelines to evaluate submitted proposals (Deliverable 4.3).
- A dedicated section for users and access providers with all results of Joint Research Activities.
- Access to the Intranet of the project (consortium only)
- An Events section to inventorize the events (congresses etc) connected to EPPN2020 theme.
- A Publication section to disseminate the publications arising from EPPN2020

Authors/Teams involved:

Roland Pieruschka, Simone Gatzke (FZJ)

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1. Establishment of the EPPN2020 web-based portal

The EPPN2020 web-based portal is available at <https://eppn2020.plant-phenotyping.eu/> and includes the following sections:

- Home
- Access
- Events
- Phenotyping projects
- Publications
- Contact
- Intranet

phenotyping.eu 70 % ... Rec

EPPN 2020

HOME ACCESS EVENTS PHENOTYPING PROJECTS PUBLICATIONS CONTACT INTRANET

Home

1st Call for Transnational Access is open! → Apply now

Applications for Transnational Access can be submitted NOW
→ more information

Why do we need plant phenotyping?

Plant derived products are at the center of grand challenges posed by increasing requirements for food, feed and raw materials. Integrating approaches across all scales from molecular to field applications are necessary to develop sustainable plant production with higher yield and using limited resources. While significant progress has been made in molecular and genetic approaches in recent years, the quantitative analysis of plant phenotypes - structure and function of plant - has become the major bottleneck.

Plant phenotyping is an emerging science that links genomics with plant ecophysiology and agronomy. The functional plant body (PHENOTYPE) is formed during plant growth and development from the dynamic interaction between the genetic background (GENOTYPE) and the physical world in which plants develop (ENVIRONMENT). These interactions determine plant performance and productivity measured as accumulated biomass and commercial yield and resource use efficiency.

What is EPPN²⁰²⁰ doing?

The EPPN2020 is a research infrastructure project funded by Horizon 2020 Programme of the EU that will provide European public and private scientific sectors with access to a wide range of state-of-the-art plant phenotyping facilities, techniques and methods, and help boost the exploitation of genetic and genomic resources available for crop improvement that represents a major scientific challenge for this coming decade. EPPN2020 specifically aims to facilitate the community progressing across the whole phenotyping pipeline, involving sensors and imaging techniques, data analysis in relation to environmental conditions, data organization and storage, data interpretation in a biological context and meta-analyses of experiments carried out on different organs at different scales of plant organization.

Specifically EPPN2020 includes:

- o Access to 31 key plant phenotyping installations
- o Joint research activities to develop: i) novel technologies and methods for environmental and plant measurements, ii) tools for statistical analysis and iii) a European plant phenotyping information systems
- o Networking activities to increase integration between phenotyping facilities and users within and outside of EPPN2020

Events

29-30. September 2017
COST/EPPN2020 workshop

Current and future applications of phenotyping for plant breeding

→ more information

22-24. November 2017
EMPHASIS/EPPN2020/ECOLCHANGE Workshop

Integrating European plant phenotyping community

→ more information

1.1 TNA Information

EPPN²⁰²⁰ provides researchers from academia and industry with access to 31 plant phenotyping installations in Europe. The installations can be used for experiments with either scientific or technological objectives. Transnational Access (TA) will be available based on a simple and transparent web-based procedure (see also Deliverable 4.3), which ensures that: i) proposals are technically feasible for the available instruments in the installations; this assessment is based on the interaction of the platform scientist and the user; ii) proposals are evaluated by a panel consisting of independent scientists outside of EPPN²⁰²⁰ and representatives of the involved TA platforms iii) the experiments represent state-of-the-art science with clear scientific questions and original experimental designs, resulting in publications in high quality journals. EPPN²⁰²⁰ has launched the first call for TA and applications are now being accepted (see also Deliverable 4.1). The web-based portal allows different groups of people involved in that process and access to the dedicated sections. Access providers have access to all applications submitted to their installations and reviewers have access to proposals assigned to them. Finally, the EPPN²⁰²⁰ Access Manager can organize web-based process in an effective way that allows a simple submission, evaluation, management and archiving of the of TA proposals.

The Website also informs the phenotyping community on the progress in the three Joint Research Activities (JRA), namely progress in (i) model assisted phenotyping techniques, (ii) statistical procedures to plan and interpret phenotyping experiments and (iii) information system to organized phenotyping datasets. These Results are made available through a special section on the website.

Application guidelines and a web-based infrastructure database

A description of the TA procedure and modalities with all relevant aspects have been outlined on the EPPN²⁰²⁰ website (see Fig. 1 and Deliverable 5.1).

Application Guidelines

How to access EPPN2020 phenotyping platforms?

- 1) Check your eligibility → [more details](#)
- 2) Select a platform for your Transnational Access project from the infrastructure DB, contact the platform scientist and discuss → [Infrastructure DB](#)
- 3) Read the Application Guidelines which specifies the requirements for an eligible application → [APPLICATION GUIDELINES](#)
- 4) Register to the EPPN²⁰²⁰ on-line application platform and submit your application → [Submission Platform](#)
- 5) Your application will be reviewed by experts, key evaluation criteria: feasibility, excellence, existing datasets on the same material, expected outcome → [more details](#)
- 6) The access is free of charge for selected user-groups and includes the logistical, technological and scientific support and the specific training required to successfully complete the approved Transnational Access project.

Please note: Applications are for one installation only. Usually, one application is acceptable at each call, but exceptions can be considered, in particular when using omic platforms together with a phenotyping platform.

For more information contact the Transnational Access Manager, Simone Gatzke: eppn2020@fz-juelich.de

Download the complete Application Guidelines as a pdf-File → [APPLICATION GUIDELINES](#)

```

graph LR
    User[User] -- "Select platform  
Contact access provider  
Assess feasibility" --> Proposal[Proposal]
    Proposal --> Review[Review Panel]
    Review -- "Threshold" --> YES{YES}
    Review -- "Threshold" --> NO{NO}
    YES --> UserAccess[User Access]
    UserAccess --> Report[Report]
  
```

Fig. 1: Guidelines for TA applications: https://eppn2020.plant-phenotyping.eu/EPPN2020_Application_Guidelines

Applicants can get an overview of the installations available for TA in a database, which includes a description of the TA installations and the contact information of the access providers (see Fig. 2 and Deliverable 5.1). Installations within EPPN²⁰²⁰ represent a diverse set of facilities for plant phenotyping in Europe with respect to plants/crops, environmental conditions and traits of interest. Thus, we put an emphasis on the assessment of the feasibility of the experiments before the submission of an application. Applicants are specifically requested to contact the access provider before submitting an application and discuss the feasibility so that only feasible applications enter the review process.

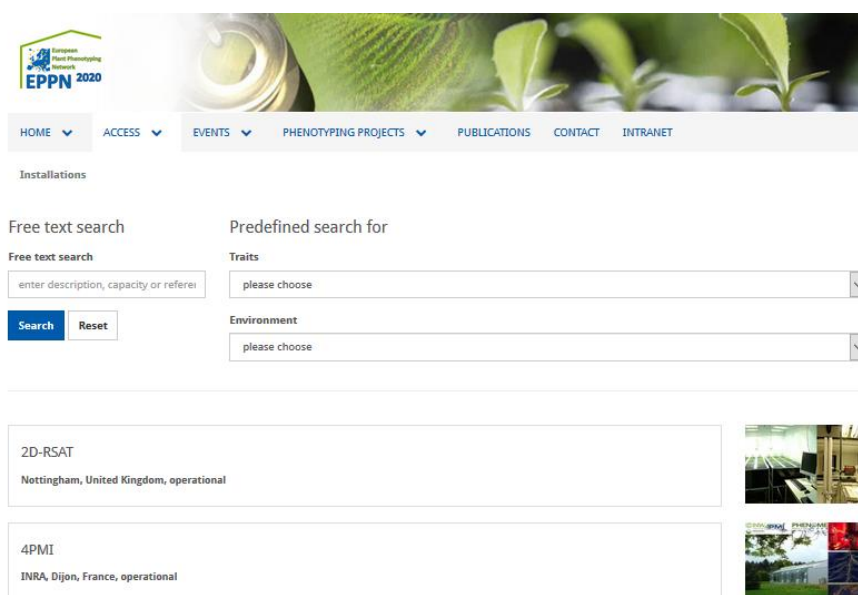


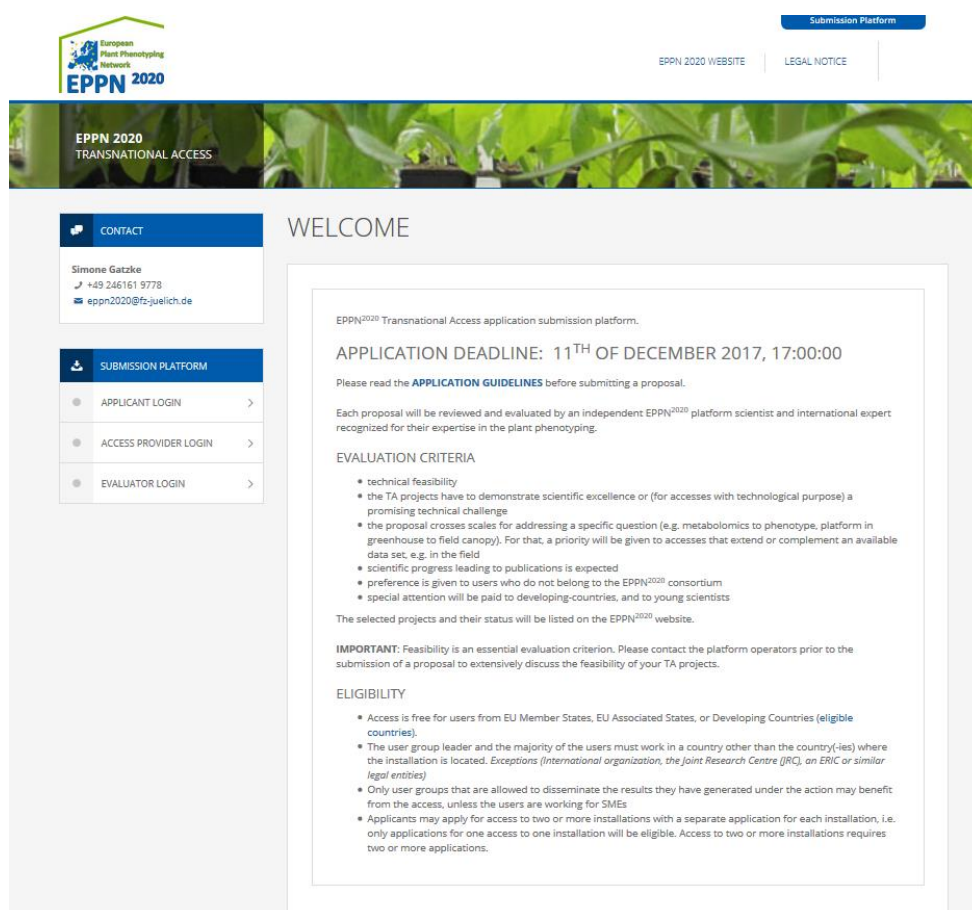
Fig. 2: Infrastructure database that includes a description of the installations available for TA in EPPN²⁰²⁰ (https://eppn2020.plant-phenotyping.eu/EPPN2020_installations#/)

On-line application submission platform

Applications for the TA can be submitted using the on-line submission platform in which all applications are managed (Fig. 3). The platform includes detailed guidelines for the applicant, reports on access and all other access data. Access provider are notified about any submissions to their installation and have access to all submitted proposals to their installations via an access provider login. A review process will be initiated only if the access provider approves the submitted proposal and the feasibility.

We have set-up a section dedicated to reviewers with relevant guidelines for the evaluation process. Access is granted on the basis of proposals. Each proposal section is evaluated and will receive grades from the reviewer. Only proposals that pass the threshold value for each section can be approved. The proposal is divided into three parts: i) description of feasibility, ii) excellence and iii) expected outcome / impact of the proposal (see Fig 4). . Each proposal will be reviewed and evaluated by an international expert recognized for their expertise in the plant phenotyping and an independent EPPN²⁰²⁰ access provider.

The first call for TA has already been launched (see Deliverable 4.1). The evaluation process of applications of the first call will start mid-December 2017. Accepted projects will be listed on the website with a short description of the performed experiments and links to relevant publications resulting from these TA activities as well as user feedback about the performed experiments.



The screenshot shows the homepage of the EPPN 2020 Transnational Access submission platform. The header includes the EPPN 2020 logo and navigation links for 'EPPN 2020 WEBSITE' and 'LEGAL NOTICE'. A 'Submission Platform' button is in the top right. The main banner features a green plant background with the text 'EPPN 2020 TRANSNATIONAL ACCESS'. On the left, a sidebar contains a 'CONTACT' section with Simone Gatzke's details and a 'SUBMISSION PLATFORM' section with links for 'APPLICANT LOGIN', 'ACCESS PROVIDER LOGIN', and 'EVALUATOR LOGIN'. The main content area is titled 'WELCOME' and contains the following text:

EPPN²⁰²⁰ Transnational Access application submission platform.

APPLICATION DEADLINE: 11TH OF DECEMBER 2017, 17:00:00

Please read the **APPLICATION GUIDELINES** before submitting a proposal.

Each proposal will be reviewed and evaluated by an independent EPPN²⁰²⁰ platform scientist and international expert recognized for their expertise in the plant phenotyping.

EVALUATION CRITERIA

- technical feasibility
- the TA projects have to demonstrate scientific excellence or (for accesses with technological purpose) a promising technical challenge
- the proposal crosses scales for addressing a specific question (e.g. metabolomics to phenotype, platform in greenhouse to field canopy). For that, a priority will be given to accesses that extend or complement an available data set, e.g. in the field
- scientific progress leading to publications is expected
- preference is given to users who do not belong to the EPPN²⁰²⁰ consortium
- special attention will be paid to developing-countries, and to young scientists

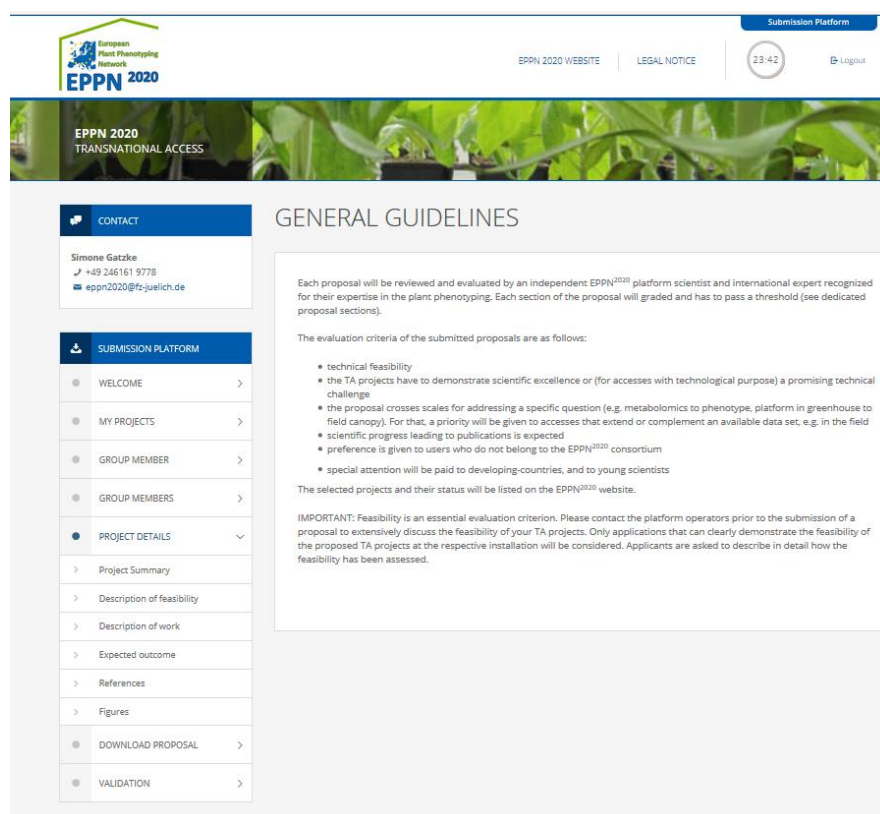
The selected projects and their status will be listed on the EPPN²⁰²⁰ website.

IMPORTANT: Feasibility is an essential evaluation criterion. Please contact the platform operators prior to the submission of a proposal to extensively discuss the feasibility of your TA projects.

ELIGIBILITY

- Access is free for users from EU Member States, EU Associated States, or Developing Countries (eligible countries).
- The user group leader and the majority of the users must work in a country other than the country(-ies) where the installation is located. Exceptions (International organization, the Joint Research Centre (JRC), an ERIC or similar legal entities)
- Only user groups that are allowed to disseminate the results they have generated under the action may benefit from the access, unless the users are working for SMEs
- Applicants may apply for access to two or more installations with a separate application for each installation, i.e. only applications for one access to one installation will be eligible. Access to two or more installations requires two or more applications.

Fig. 3: On-line submission platform for Transnational Access applications (https://eppn2020.plant-phenotyping.eu/EPPN2020_call)



The screenshot shows the 'GENERAL GUIDELINES' page of the EPPN 2020 Transnational Access submission platform. The header is similar to the previous page, but includes a clock icon showing '23:42' and a 'Logout' link. The main banner is the same. The sidebar on the left has a 'CONTACT' section and a 'SUBMISSION PLATFORM' section with links for 'WELCOME', 'MY PROJECTS', 'GROUP MEMBER', 'GROUP MEMBERS', 'PROJECT DETAILS' (which is expanded to show 'Project Summary', 'Description of feasibility', 'Description of work', 'Expected outcome', 'References', and 'Figures'), 'DOWNLOAD PROPOSAL', and 'VALIDATION'. The main content area is titled 'GENERAL GUIDELINES' and contains the following text:

Each proposal will be reviewed and evaluated by an independent EPPN²⁰²⁰ platform scientist and international expert recognized for their expertise in the plant phenotyping. Each section of the proposal will be graded and has to pass a threshold (see dedicated proposal sections).

The evaluation criteria of the submitted proposals are as follows:

- technical feasibility
- the TA projects have to demonstrate scientific excellence or (for accesses with technological purpose) a promising technical challenge
- the proposal crosses scales for addressing a specific question (e.g. metabolomics to phenotype, platform in greenhouse to field canopy). For that, a priority will be given to accesses that extend or complement an available data set, e.g. in the field
- scientific progress leading to publications is expected
- preference is given to users who do not belong to the EPPN²⁰²⁰ consortium
- special attention will be paid to developing-countries, and to young scientists

The selected projects and their status will be listed on the EPPN²⁰²⁰ website.

IMPORTANT: Feasibility is an essential evaluation criterion. Please contact the platform operators prior to the submission of a proposal to extensively discuss the feasibility of your TA projects. Only applications that can clearly demonstrate the feasibility of the proposed TA projects at the respective installation will be considered. Applicants are asked to describe in detail how the feasibility has been assessed.

Fig. 4: Evaluation criteria for submitted proposals (https://eppn2020.plant-phenotyping.eu/EPPN2020_call)

2. Dissemination of Joint Research Activities through a web-based portal

Results of the JRA activities will be publically available through the EPPN²⁰²⁰ webpage (see D5.2).

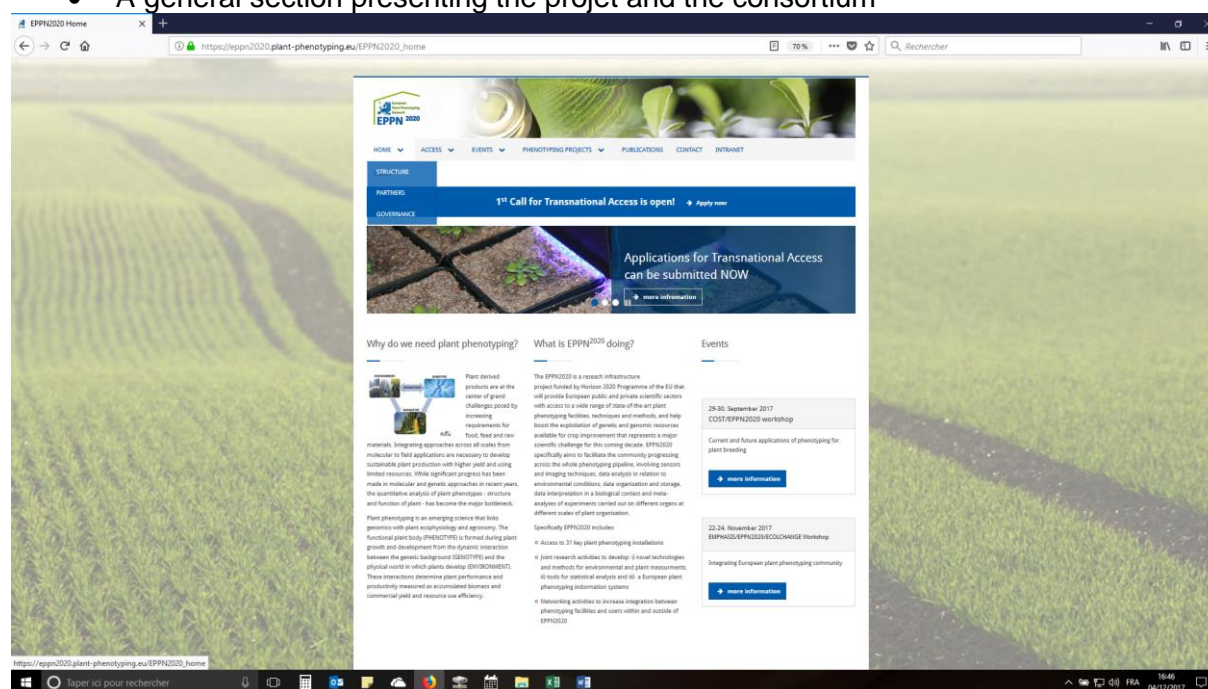
JRA activities in EPPN²⁰²⁰ include: i) Procedures and information for the acquisition of phenotypic data related to trait assessment and environmental monitoring, ii) statistical design and analysis approaches, iii) methods and interfaces to manage, share, reuse and visualize heterogeneous high throughput plant phenotyping data. Datasets generated and processed during and after the TA experiments of EPPN²⁰²⁰ will be managed through the Data Management Plan (see D3.1). The Data Management Plan, available in the website, will help partners to manage data, meet funder requirements, and facilitate multiple use of data by the scientific community.

The results of the JRA activities will also be available beyond the EPPN²⁰²⁰ consortium and published in scientific publications, reports and white papers that will be made available on the EPPN²⁰²⁰ website and disseminated through other networks and initiatives such as EMPHASIS and IPPN.

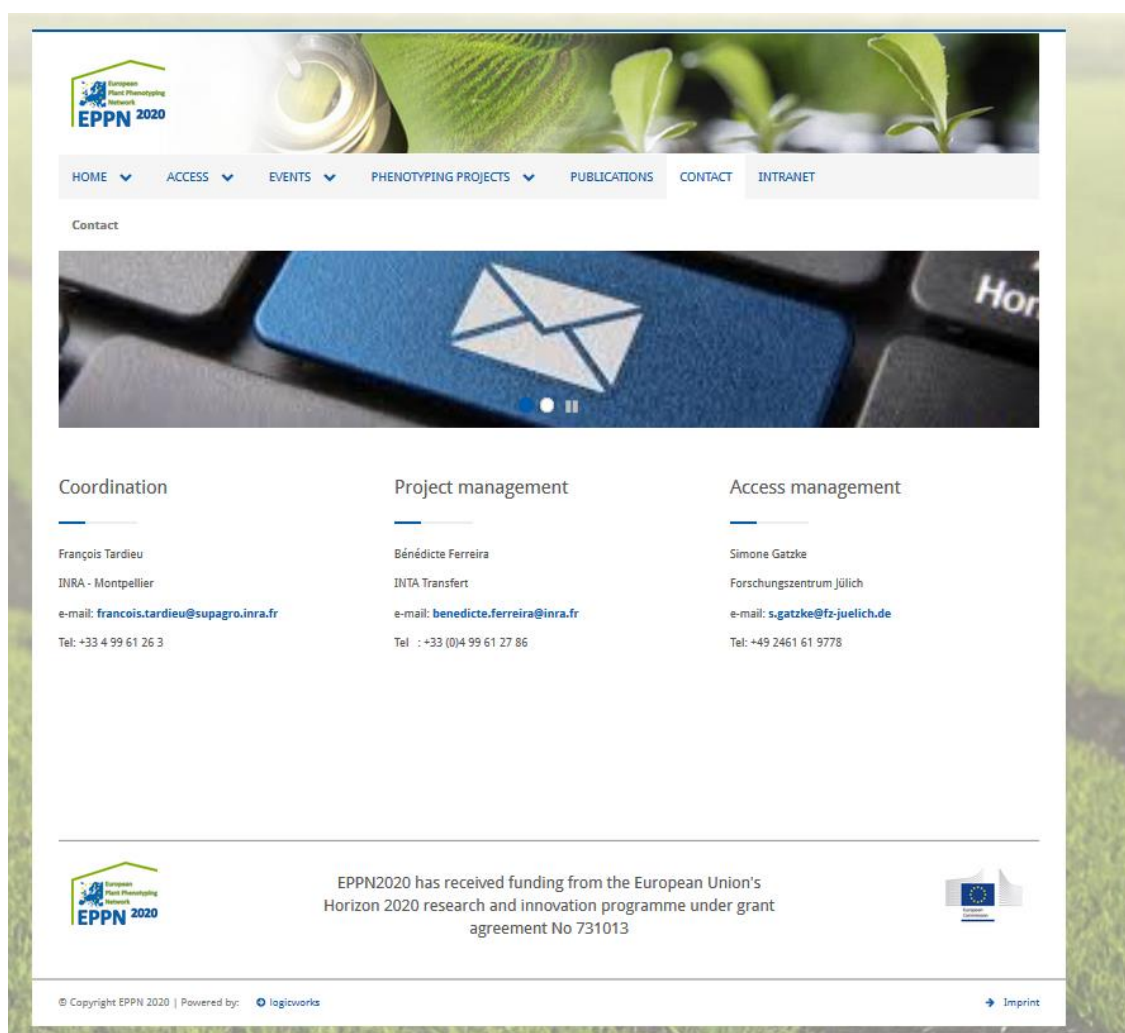
3. Other sections

The EPPN2020 web based portal also contains:

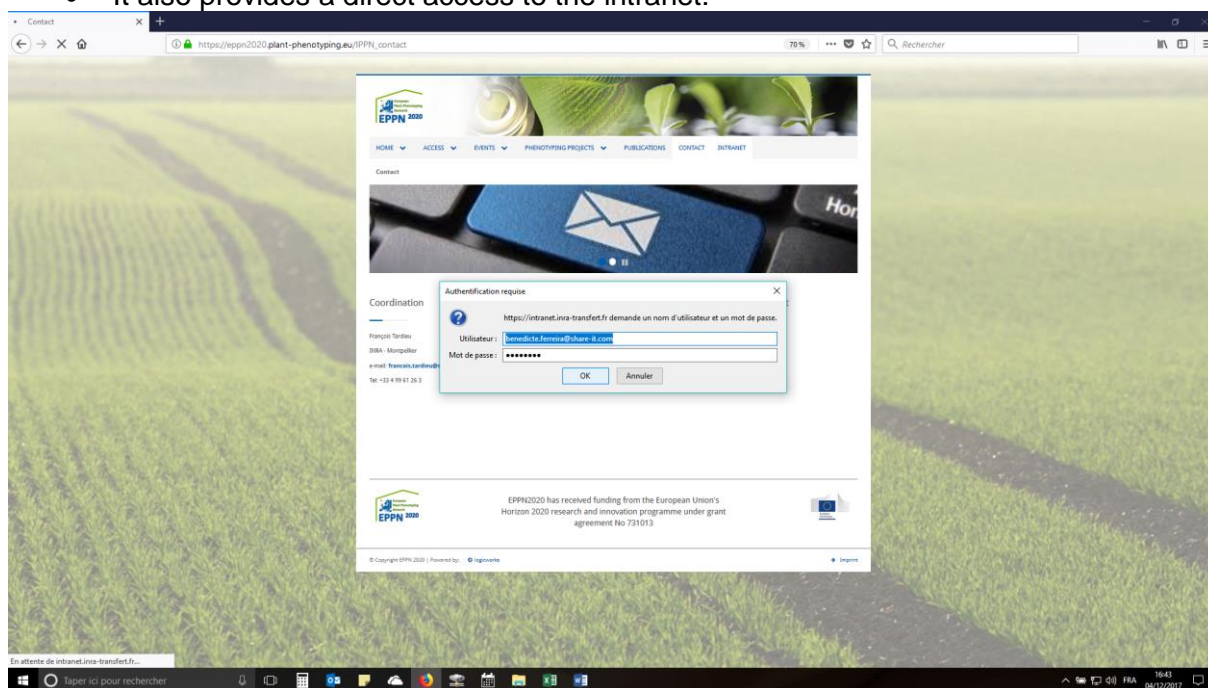
- A general section presenting the project and the consortium



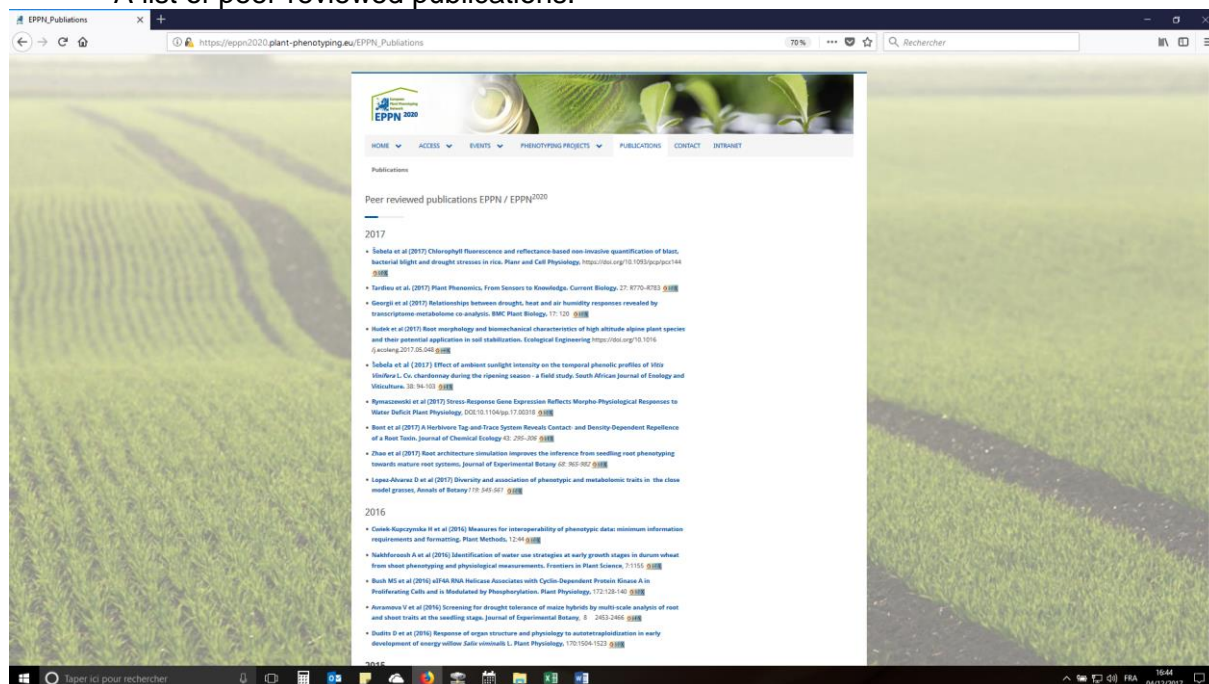
- a “contact” section to communicate with the consortium:



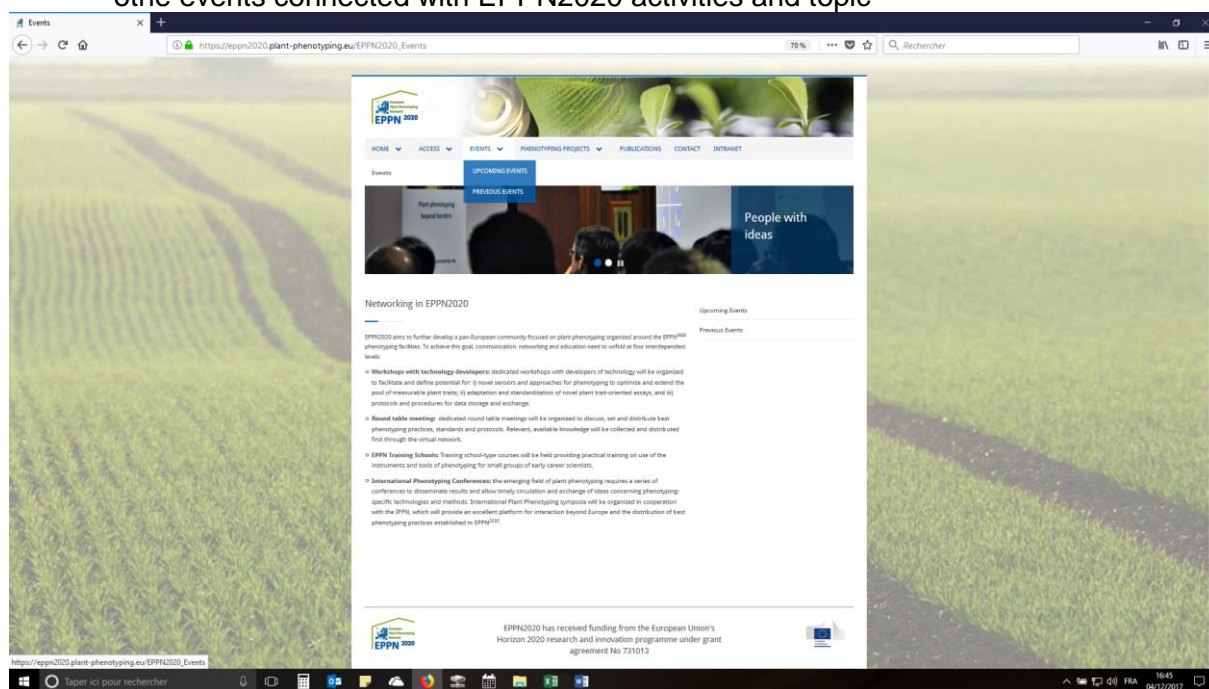
- It also provides a direct access to the intranet:



- A list of peer-reviewed publications:



- A list of events (workshops organised in the frame of the Networking Activities and other events connected with EPPN2020 activities and topic)



Conclusion

A web-based portal has been established to broadcast information and results on the project and to allow external people to contact us. One of the main features of the EPPN2020 webportal is the Transnational Access section, allowing users to submit their proposal using the on-line submission platform. A first call for TA has been launched and was made publically accessible on the EPPN²⁰²⁰ webpage. The call closes 11th of December 2017. The evaluation process of applications of the first call will start mid of December 2017. The next call will be launched in February 2018.

Definitions

EPPN²⁰²⁰: European Plant Phenotyping Network - 2020

JRA: Joint Research Activities

TA: Transnational Access

Annex 1: Check list

Deliverable Check list (to be checked by the “Deliverable leader”)

	Check list	Comments
BEFORE	I have checked the due date and have planned completion in due time	<i>Please inform Management Team of any foreseen delays</i>
	The title corresponds to the title in the DOW	<i>If not please inform the Management Team with justification</i>
	The dissemination level corresponds to that indicated in the DOW	
	The contributors (authors) correspond to those indicated in the DOW	
	The Table of Contents has been validated with the Activity Leader	<i>Please validate the Table of Content with your Activity Leader before drafting the deliverable</i>
	I am using the EPPN ²⁰²⁰ deliverable template (title page, styles etc)	<i>Available in “Useful Documents” on the collaborative workspace</i>
The draft is ready		
AFTER	I have written a good summary at the beginning of the Deliverable	<i>A 1-2 pages maximum summary is mandatory (not formal but really informative on the content of the Deliverable)</i>
	The deliverable has been reviewed by all contributors (authors)	<i>Make sure all contributors have reviewed and approved the final version of the deliverable. You should leave sufficient time for this validation.</i>
	I have done a spell check and had the English verified	
	I have sent the final version to the WP Leader and to the Project coordinator (cc to the project manager) for approval	<i>Send the final draft to your WPLLeader and the coordinator with cc to the project manager on the 1st day of the due month and leave 2 weeks for feedback. Inform the reviewer of the changes (if any) you have made to address their comments. Once validated by the 2 reviewers and the coordinator, send the final version to the Project Manager who will then submit it to the EC.</i>