

Federal Ministry of Food and Agriculture

Update on current activities in the EVA Networks

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Annual project meeting of European Evaluation Network (EVA) on wheat and barley 05 May 2020, online



- EVA Grant agreement
 - Extension for 2022
- EVA networks on cereals and vegetables
- General outline of EVA process
- General timeline of EVA project
 - AGENT H2020 project preview
- Expectations from this meeting



Project for EVA networks on <u>wheat</u> <u>and barley</u> and <u>vegetables</u> (<u>carrot, lettuce, pepper</u>) granted by Germany in June 2019

Project extension until Nov. 2022 and inclusion of <u>maize</u> in December 2019

Project extension also includes collection of <u>existing evaluation</u> <u>data for wheat, barley and</u> <u>maize</u> and inclusion in EURISCO catalogue



https://www.ecpgr.cgiar.org/eva-network



EVA networks

- **EVA wheat and barley:** 31 partners from 16 countries (18 companies and 13 genebanks or public research institutes)
- <u>EVA carrot</u>: 12 partners from 7 countries (6 companies and 6 genebanks or public research institutes)
- <u>EVA lettuce</u>: 13 partners from 10 countries (6 companies and 7 genebanks or public research institutes)
- EVA pepper: 14 partners from 8 countries (7 companies and 7 genebanks or public research institutes)
- **EVA maize:** search for partners is ongoing. Currently 13 genebanks/research institutes are interested and private partners are being contacted

The EVA process

Partners agree on traits of interest and select accessions from European genebanks

Data are collected and analyzed using standard ontologies and centrally stored in project specific EURISCO database (during embargo period)

European Cooperative

ECP/GR

Programme for Plant Genetic Resources

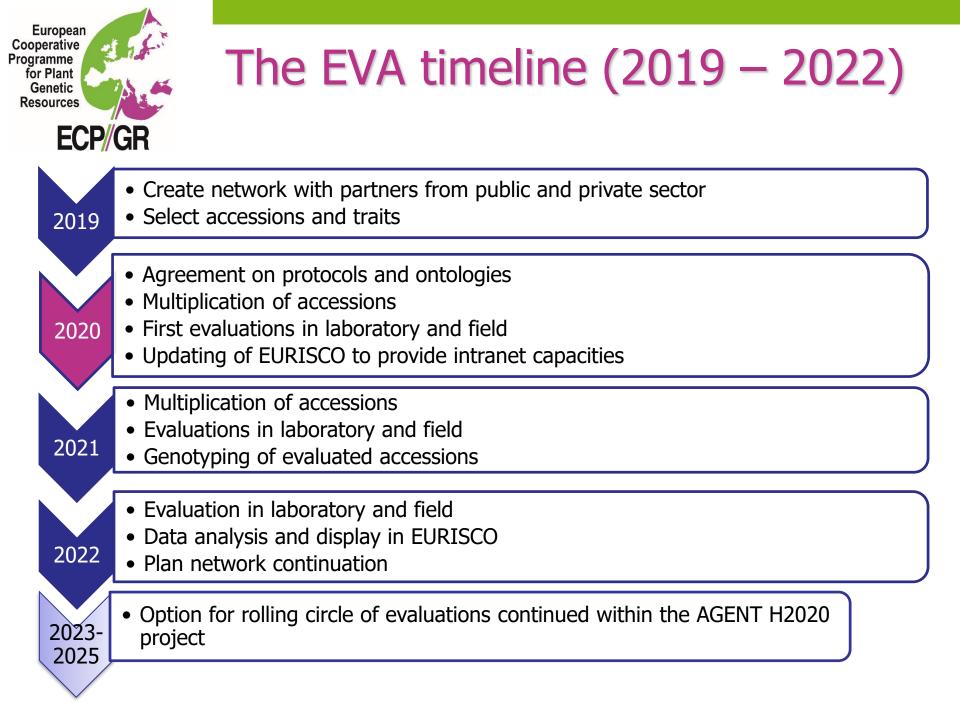


Partners agree on standard experimental protocols and ontologies

Evaluated accessions are genotyped using agreed protocol

Accessions from genebanks (obtained with SMTA) are multiplied by partners

Accessions are evaluated by partners in laboratory tests and the field in multiple evaluation sites/environments





Linking EVA project with AGENT



Activated GEnebank NeTwork

EU Horizon2020 project: 05/2020 - 04/2025

- 19 European genebanks and genomic centres create a network to promote the use of GR and standardize related information.
- Wheat and Barley are used as practical examples and the project includes provisions for one year extension of the Evaluation network (funds for one additional multiplication cycle) and to include also evaluation by organic farmers through NGO in Italy



Goals of EVA Network Wheat and Barley

- Establish EVA networks within three geographic zones on different wheat and barley crops:
 - Nordic zone (UK, Scandinavia, Baltic)
 - Spring barley
 - Winter wheat
 - Spring wheat
 - Central zone (Central Europe)
 - Winter wheat
 - Spring barley
 - Winter barley (6r, 2r)
 - Southern zone (Italy, Portugal, Spain)
 - Durum wheat
 - Bread wheat
 - Barley



A collaborative programme should link separate national programmes to generate added value.



(source of figure: Report of the PPP workshop, June 2017, Bonn)



Goals of EVA Network Wheat and Barley

- Two rounds of field evaluation
 - 150 200 accessions per crop per year per zone
 - Trials repeated in 2 years
 - 20 evaluation sites per zone
 - Additional rounds pending extra funding
- Genotyping of ca. 150 accessions per crop
 - Defined methodology and commercial provider
 - For two evaluation rounds
- Data collection, analysis and processing
 - Inclusion in EURISCO
 - Using standardized data forms



Wheat and Barley component of EVA extension (Dec. 2019)

- Include into EURISCO existing characterization and evaluation data from at least 100 accessions of wheat and barley
 - Using EURISCO templates
 - Partners with available characterization and evaluation data to be identified.

Got data? We welcome your suggestions! Funds are available in 2020 and 2021



Expectations from this Meeting

Project partners for each of the three geographical zones discuss in parallel sessions to reach agreement on:

- <u>traits</u> to be evaluated for the different crops
- <u>standard protocols</u> to be implemented in evaluation
- number and location of <u>evaluation sites for each crop</u> in each zone
- Confirm <u>number of accessions</u> (target is 150 first year;
 300 second year)
- the <u>timeline</u> of the workplan
- deliverables for 2020/21



Expectations from this Meeting

Project partners are updated about ongoing activities

Discussions to reach general agreement on:

- selection of <u>genotyping</u> methodology, data analysis pipeline and commercial provider
- roles and responsibilities of project partners

Finalizing project plan after the virtual meeting

- Selection of standard protocols and ontologies
- Finalizing work plan for project
- Finalize consortium agreement for signature by partners



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