

# R&I for conservation and use of plant genetic resources

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#### Workshop on Genetic Resources

Pre-breeding materials: a grey zone between Genetic Resources and Cultivars – Introduction on regulatory aspects and protection of Intellectual Property

15 March 2023

EU R&I to support conservation and use of genetic

resources (GenRes)

Support for GenRes has been part of a wider agenda for diversification, resilience and ecological approaches (including organic farming)





#### Horizon 2020 Projects on Genetic Resources and Breeding\*





















Pride







**INCREASE** 

























+ 33 Projects



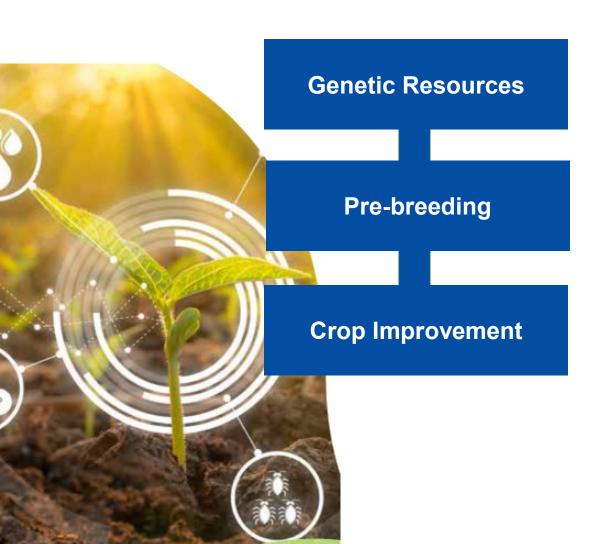
+ 189 **M**€



2014-2020



## Pre-breeding as a bridge between GenRes and crop improvement



R&I activities aim to halt the further loss of genetic diversity by tapping into the vast gene pool of plant and making it available to breeders, farmers and ultimately consumers.

Breeding efforts are also being undertaken to broaden the genetic base of cultivated crops and create varieties that meet the variety of demands related to quality, resilience and sustainability.



## R&I on GenRes and pre-breeding communities

 Joining forces for GenRes and biodiversity management (CSA) 2018









Genetic resources for a food-secure and forested Europe

Adding value to plant GenRes (RIA) 2019



 The GenRes-user interface and pre-breeding activities (IA) 2020

















#### **CLUSTER 6**

## FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE & ENVIRONMENT



#### Horizon Europe: structure









Widening Participation and Strengthening the European Research Area

**Joint Research Centre** 

**Agriculture and Environment** 

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



## **EU Policy Context for Agriculture**









### Horizon Europe Cluster 6: R&I for GenRes

Horizon Europe – EU Research Framework Programme 2021-2027



Strategic Plan 2021-2024

#### Strategic Plan 2021-2024:

'Improve conservation, management and use of **plant genetic resources**, thereby preserving and enhancing agrobiodiversity.'

### Horizon Europe Cluster 6: R&I for GenRes

Horizon Europe – EU Research Framework Programme 2021-2027



Work Programme 2021-2022

Work Programme 2021-2022: Destination – Biodiversity and ecosystem services: Managing biodiversity in primary production

#### **New Projects!**

- Breeding for resilience: focus on root-based traits:
  - BarleyMicroBreed, Bolero, Root2Res
- Fostering organic crop breeding
  - InnOBreed, LIVESEEDING
- Intercropping understanding and using the benefits of complexity in farming and value chains
  - IntercropValuES, LEGUMINOSE
- Boosting breeding for a sustainable, resilient and competitive European legume sector











### Horizon Europe Cluster 6: R&I for GenRes

Horizon Europe – EU Research Framework Programme 2021-2027



Work Programme 2023-2024

Work Programme 2023-2024: Destination – Biodiversity and ecosystem services: Managing biodiversity in primary production

- Biodiversity friendly practices in agriculture breeding for Integrated
   Pest Management (IPM)
- Crop wild relatives (CWR) for sustainable agriculture
- Valorisation of ecosystem services provided by **legume crops**
- Promoting pollinator friendly farming systems
- Promoting minor crops in farming systems

## R&I support to breeding and genetic resources



- Promote breeding and the use of genetic resources to develop crops that meet the variety of demands related to quality, resilience and sustainability.
- Promote the conservation and use of plant genetic resources, including landraces and crop wild relatives
- Increase the resilience of plants to biotic and abiotic stresses by bringing more diversity into farming and forestry systems and provide farmers and other actors in value chains with better-adapted crop varieties



## 2023 EU Agricultural R&I Conference

31 May – 1 June (Brussels)

More info here

Registrations will open on Tuesday 21 March 2023





Participants will be able to provide their input to update the DG AGRI long-term EU research and innovation agenda for agriculture, forestry and rural areas, and contribute to shaping the <u>Horizon Europe strategic plan</u> 2025-27.



## Thank you for your attention

