



Instituto Nacional de
Investigação Agrária e
Veterinária, I.P.

GRAIN LEGUMES GENETIC RESOURCES IN PORTUGAL

Madalena Vaz
INIAV/BPGV

*ForEVA – Fostering the need of implementation of
the ECPGR's European Evaluation Network (EVA) on
Grain legumes*

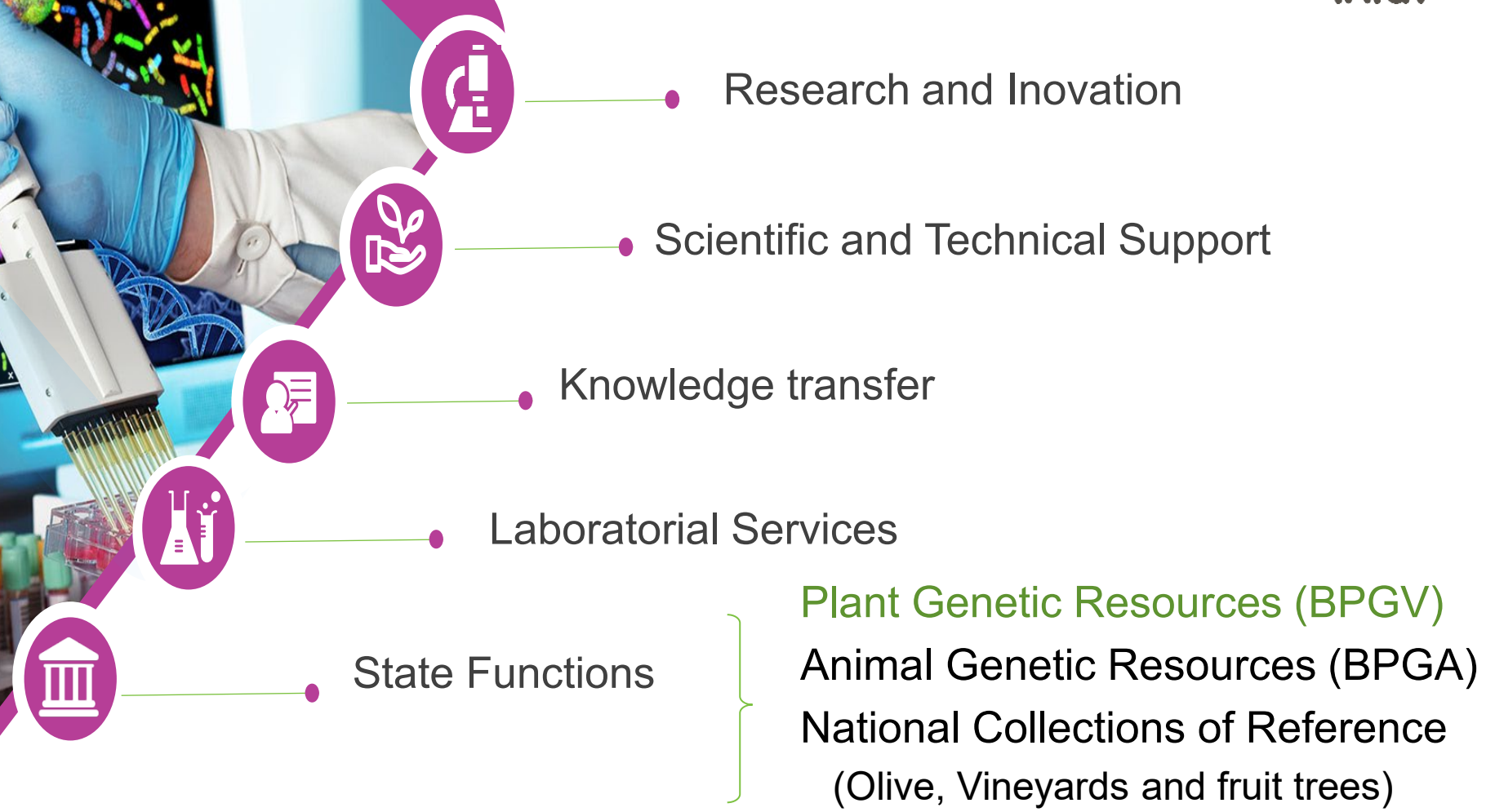
10-11 October 2023, Bucharest, Romania



National Institute of Agricultural and Veterinary Research, IP (INIAV)



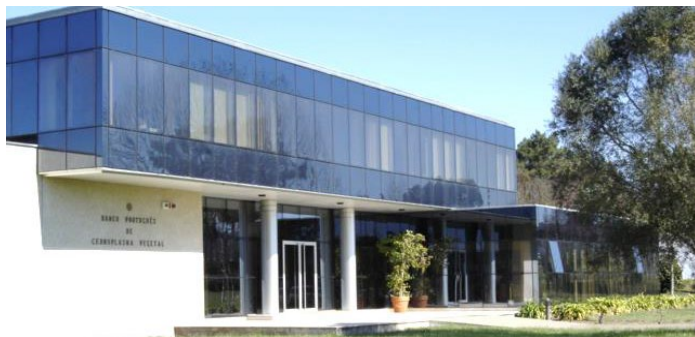
➤ INIAV's Mission



BPGV - The Nacional Genebank

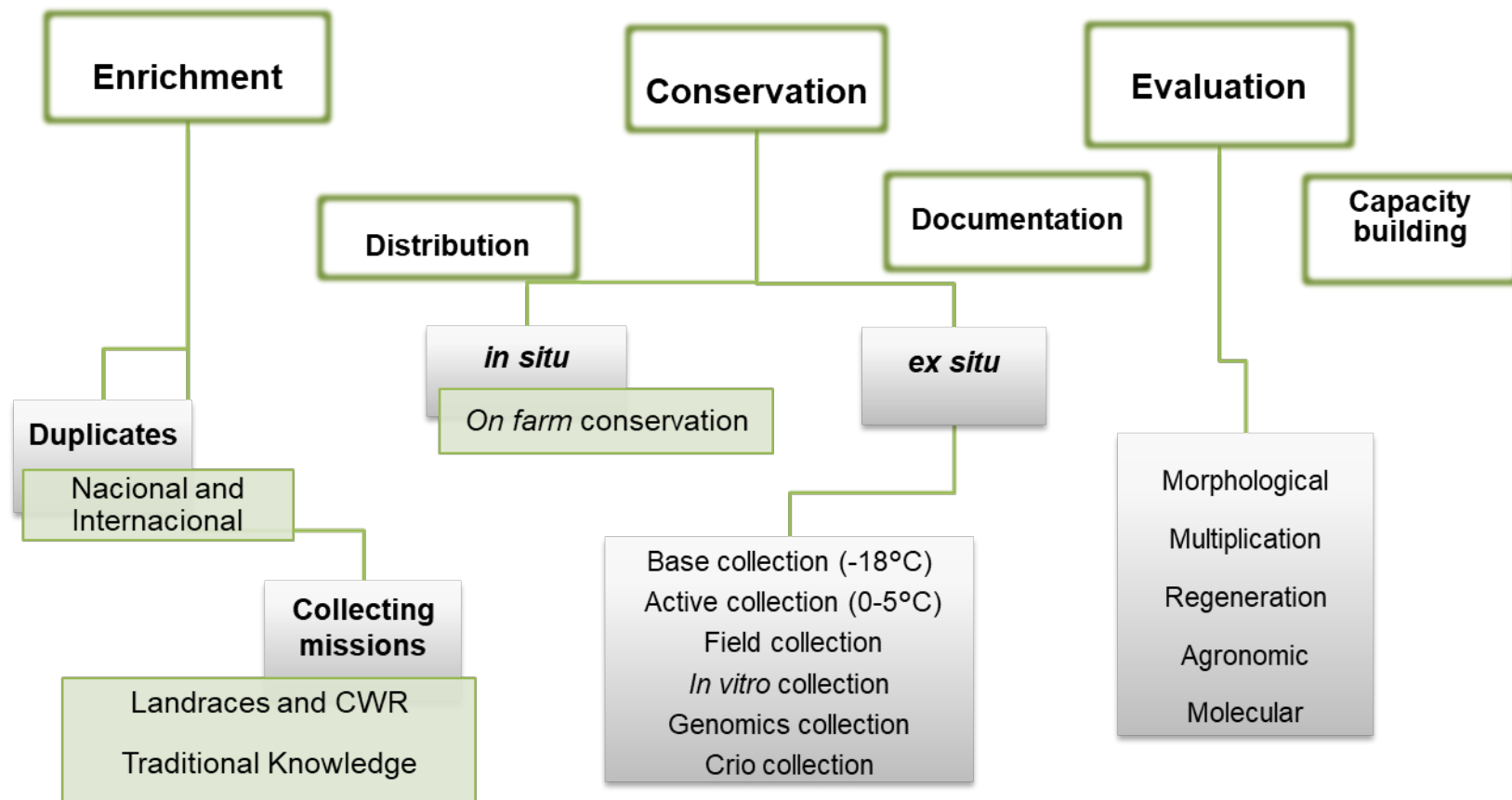


 Stations
Innovation Network



BPGV - The Nacional Genebank

➤ Main activities



BPGV - The Nacional Genebank



Active Collection
(0-5°C)



Base Collection
(-18°C)

Conservation
Ex situ

Cold

Field collection



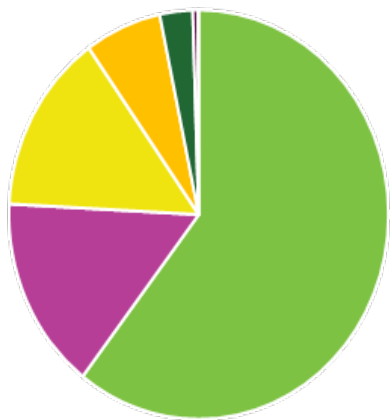
In vitro and cryo



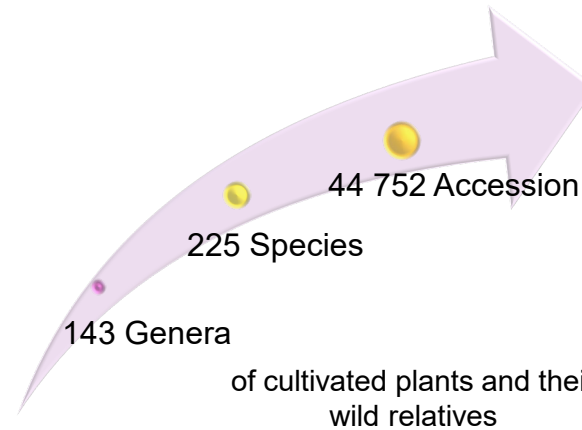
Nacional Collections



Groups of species



- Cereals
- Grain Legumes
- Vegetables
- Forages
- Medicinal and Aromatic Plants
- Fibers
- Others

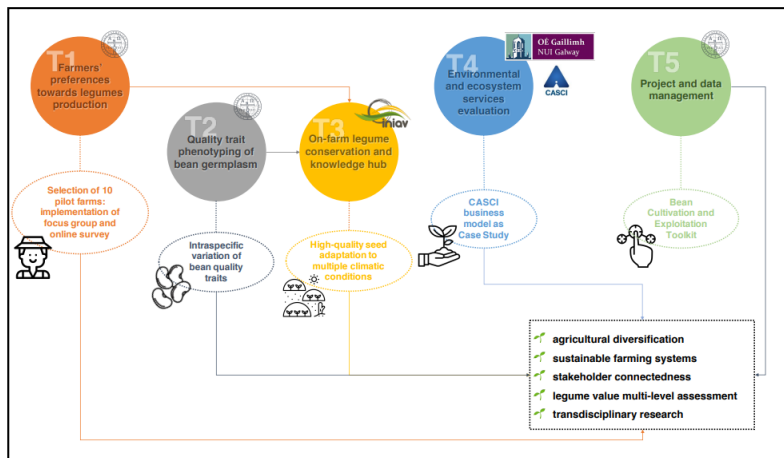


Group of species	Total
Aromatic and Medicinal Plants	1 257
Cereals	27 086
Fibers	201
Pastures and Forages	2 928
Vegetables	6 417
Grain Legumes	6 876
Others	22
Total	44 752

Projects on Grain Legumes



LAND - integrated approach for Legume promotion and sustainable value chains Development



LEGUCON - Consortium for Legumes Increased production of legumes for more sustainable consumption

LeguCon
 Promoting the increased production of legumes and farm diversification

Promoter: Católica University – Porto Regional Centre
Territorial Reach: Northern Portugal
Target Audience: Farmers, producers, agricultural associations/cooperatives, agents of rural development
Duration: 2 years
SDG: 2. Zero hunger, 8. Decent work and economic growth, 12. Responsible consumption and production



ConVIGNA – Intercropping corn with cowpeas as a sustainable technique for adapting the production of this cereal to climate change in Portugal



ExploDiv

ECPCR Homepage / ECPCR Working Groups / ECPCR Grain Legumes Working Group

Exploring grain legumes diversity for sustainable European agri-food systems

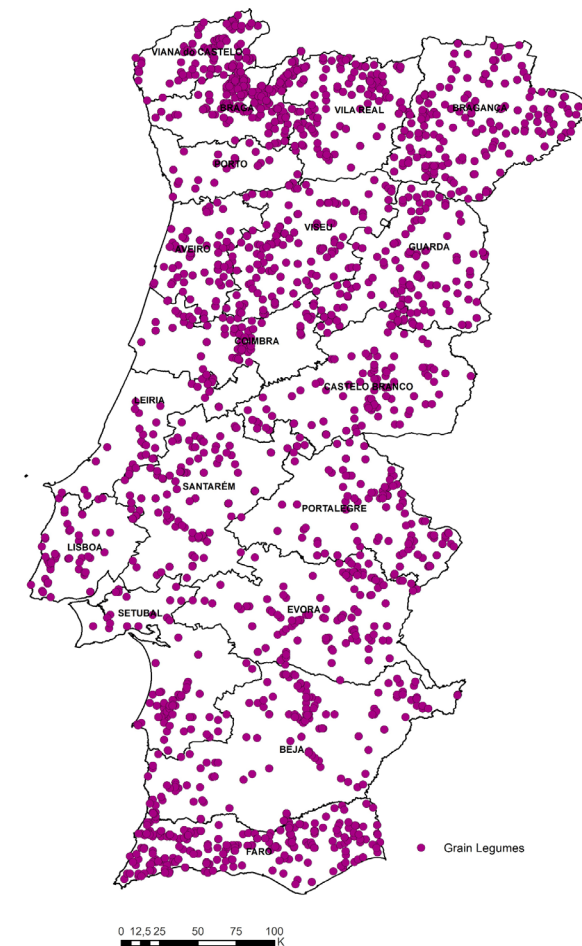
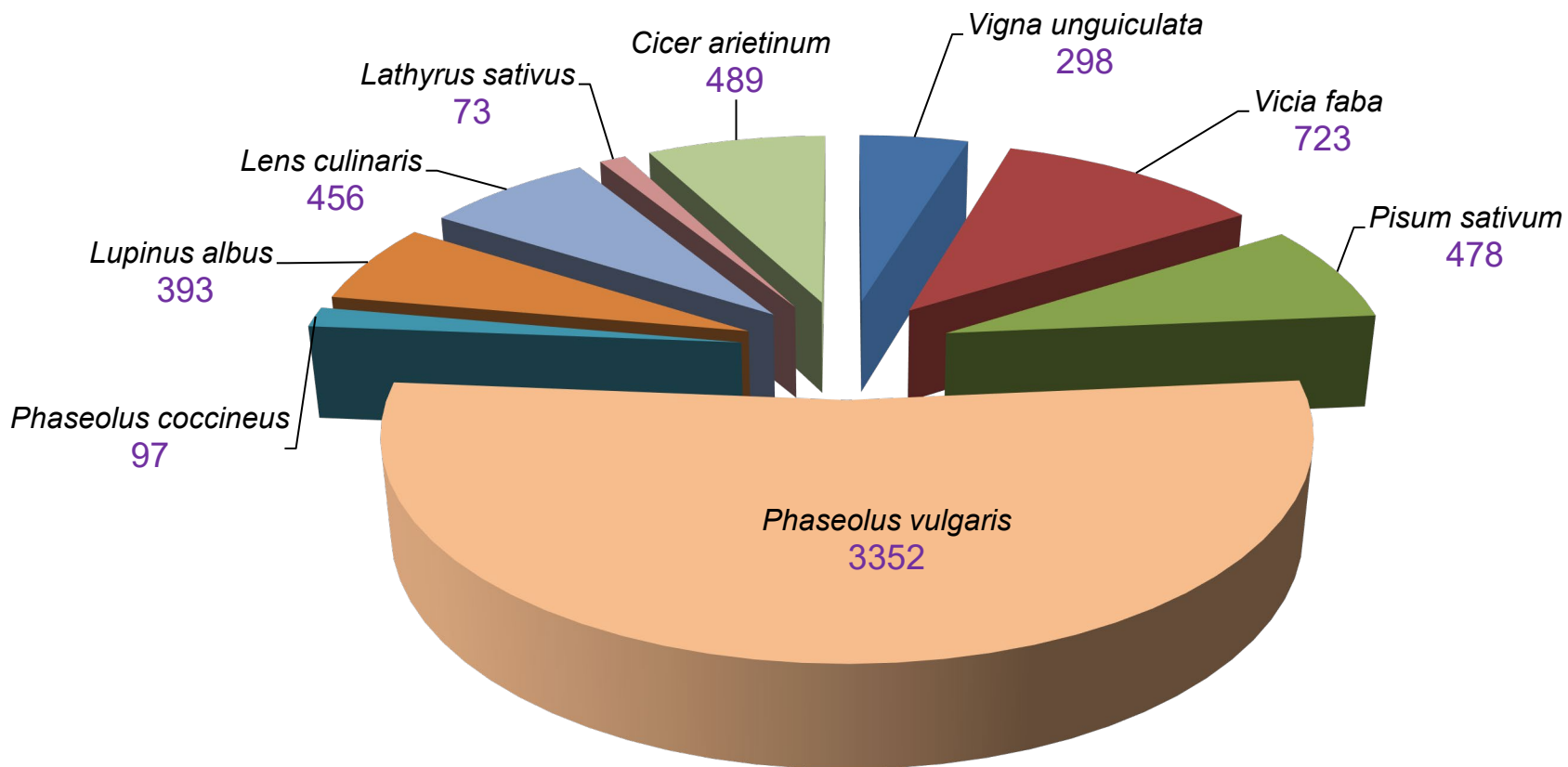
Activity Coordinator: Creola Brezeanu

The ExploDiv Activity, submitted by the Grain Legumes Working Group for funding under the Sixth Call of the Phase X ECPCR Activity Grant Scheme, was selected by the Executive Committee and approved in December 2022.

Grain Legumes Conservation and Improvement Program



Grain Legumes National Collection



Grain Legumes National Collection

➤ Geographic distribution



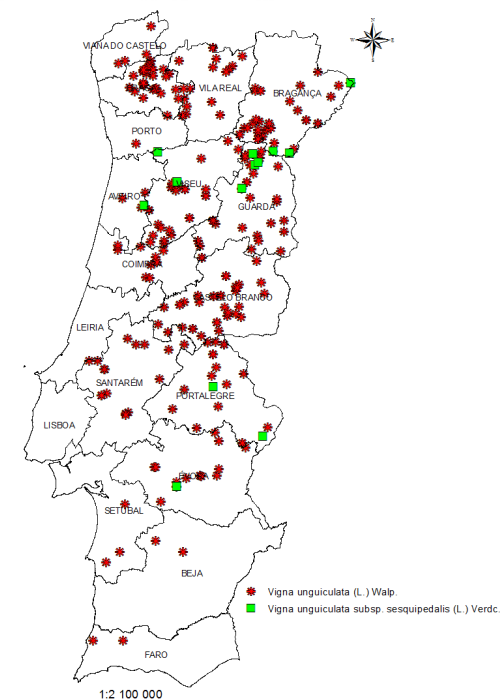
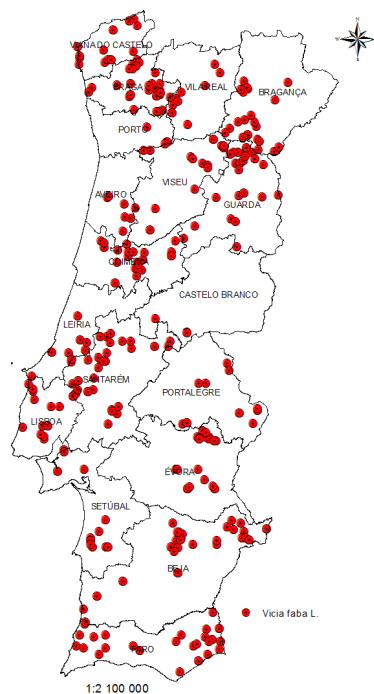
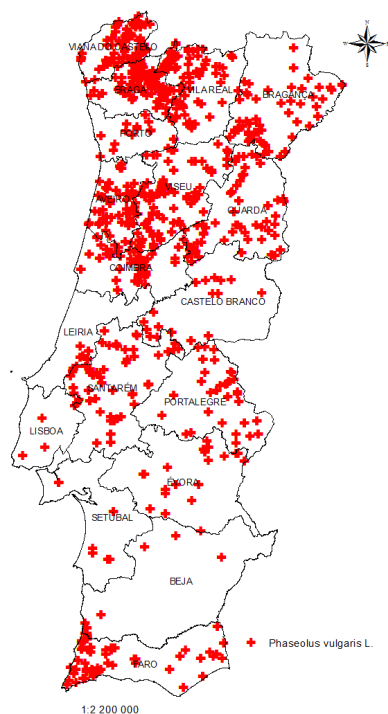
Phaseolus vulgaris L.



Vicia faba L.



Vigna unguiculata (L.) Walp.

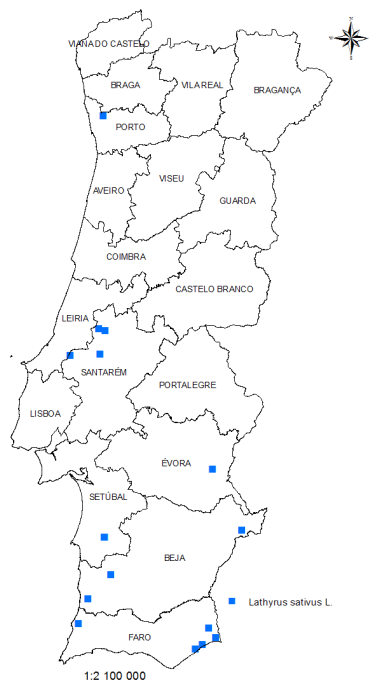


Grain Legumes National Collection

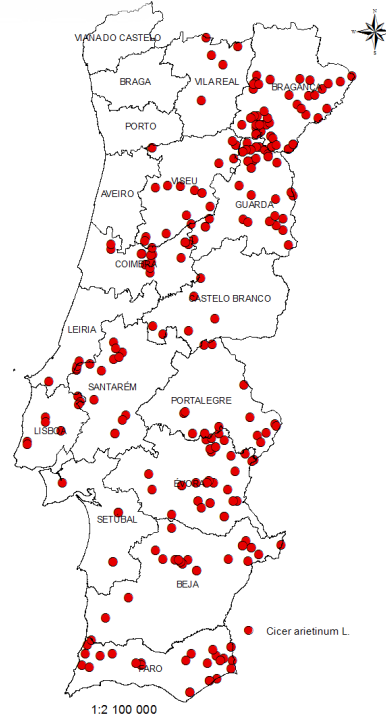
➤ Geographic distribution



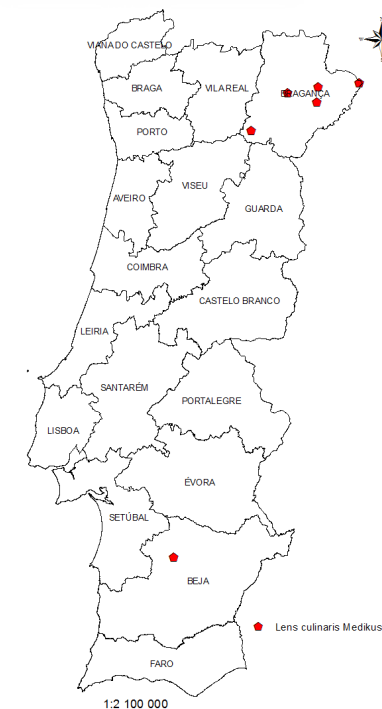
Lathyrus sativus L.



Cicer arietinum L.



Lens culinaris Medikus

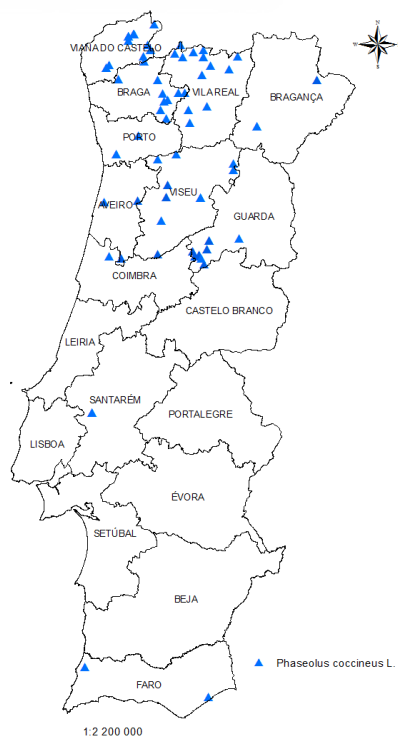


Grain Legumes National Collection

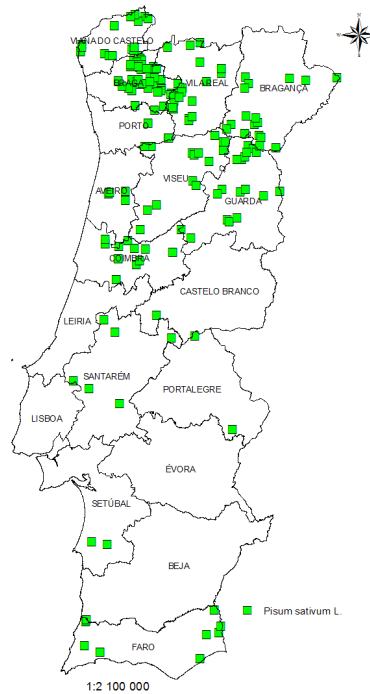
➤ Geographic distribution



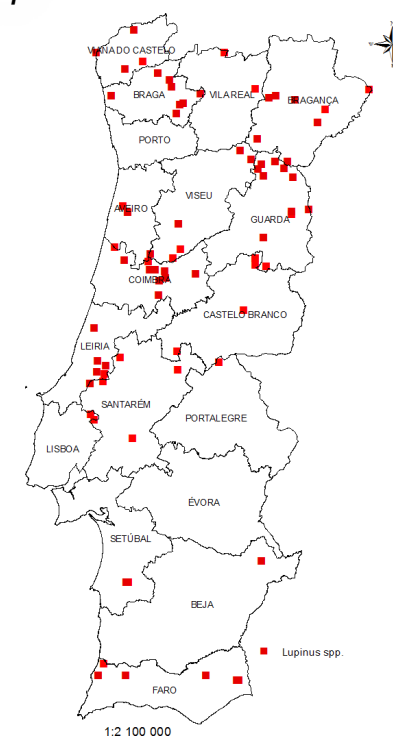
Phaseolus coccineus L.



Pisum sativum L.



Lupinus spp

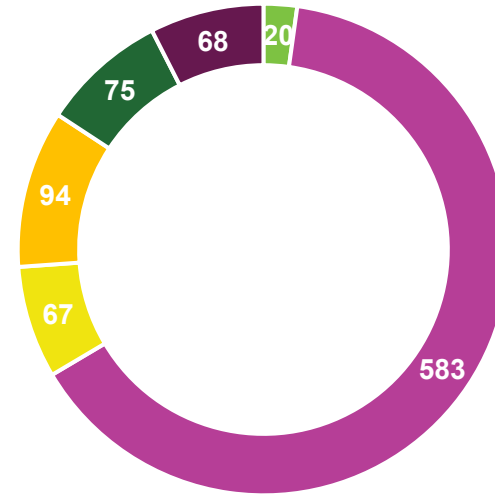


Morphological Characterization



N° of accession characterized

- Runner bean
- Common bean
- Cowpea
- Faba bean
- Pea
- Lupin




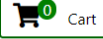
Descriptor based on Bioversity International


Information and Documentation

<http://bpgv.iniav.pt/gringlobal/>



 Instituto Nacional de Investigação Agrária e Veterinária, I.P.
Banco Português de Germoplasma Vegetal


 Cart



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Characterization Data EURISCO

[Summary](#) [Passport](#) [Taxonomy](#) [Other](#) [Pedigree](#) [IPR](#) [Observation](#)

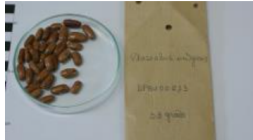
Summary Data

Taxonomy: *Phaseolus vulgaris* L.
Top Name: Feijão catarino
Origin: Faro, Portugal
Maintained: Banco Português de Germoplasma Vegetal, INIAV, I.P.
Received by BPGV: 01 set 1981
Improvement Status: Landrace
Reproductive Uniformity: Population
Form Received: Seed

Availability

This accession is not available. Contact site for status.
Banco Português de Germoplasma Vegetal, INIAV, I.P.

Images (1 total. Click on image for more.)

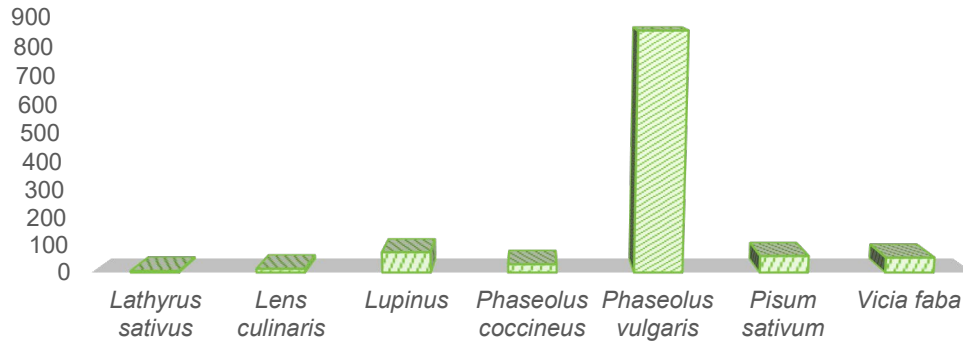


Sharing Genetic Resources

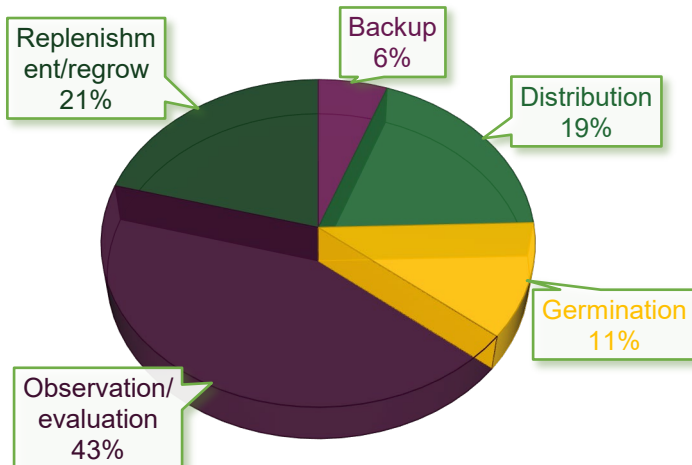


➤ Last 10 years

N° ACC REQUESTED



ORDER TYPE



Sending seeds for safely duplication

2020 - 50 acc Phaseolus vulgaris

2023 - 111 acc Phaseolus vulgaris

14 acc Vigna unguiculata



International Treaty
on Plant Genetic Resources
for Food and Agriculture

We provide genetic resources using the Standard Material Transfer Agreement (sMTA) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and in accordance with our inventory availability



Expectations from EVA Legumes



EVA Maize Network

The EVA Maize network is the newest addition to the EVA networks, resulting from the successful first meeting of the new ECPGR Maize Working group in December 2019.

An extension of the project 'Implementation of the ECPGR EVA Network on wheat/barley and vegetable crops (carrot, lettuce and pepper)' was granted by the German Federal Ministry of Food and Agriculture with an additional contribution of ca. € 300 000 until November 2023.

This network can build on experience of the French public-private partnership Promais as well as previous European projects with the involvement of national genebanks and will evaluate a total of 200-500

European genebank accessions of maize for a variety of relevant traits, including abiotic and biotic stress responses and morphological characteristics with importance to breeders in multilocation experiments.



Maize diversity (Photo: Vojka Babic)

Countries involved



EVA Carrot Network

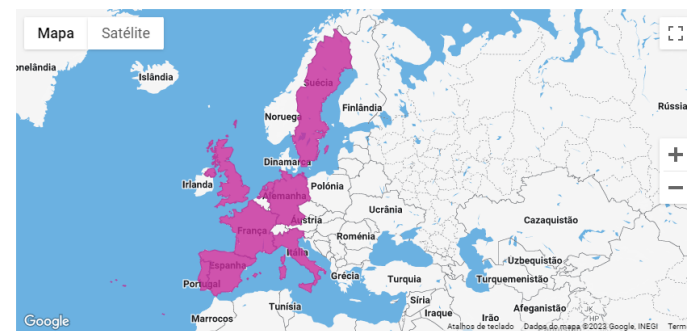
The EVA Carrot network is one of three vegetable networks currently functional within EVA. It builds on the experience and expertise of the ECPGR Umbellifer Crops Working Group and the French *Daucus* network, a successful public-private partnership aimed at preservation and use of local carrot genetic resources.

Within the EVA network, carrot accessions from genebanks across Europe will be genotyped and evaluated in laboratory and field trials for a number of traits of interest for carrot breeding, including agronomic and quality characteristics as well as resistance or tolerance to important pests affecting carrot production. Network partners provide their complementary expertise and capacity and together generate datasets that will help identify interesting materials among the evaluated accessions to be included in future breeding activities.



Carrot Landraces (Photo: T. Nothnagel, JK)

Countries involved



EVA Pepper Network

Pepper was selected as a fruit vegetable of significant interest to establish an EVA network. The EVA Pepper Network builds on partners' experience from recent or ongoing Horizon2020 projects LIVESEEDS, BRESOV and G2PSOL as well as the active ECPGR Solanaceae Working Group.

Activities in the pepper network include field evaluations for agronomic traits in various geographic locations across Europe as well as tests for important diseases in controlled conditions. Pepper accessions will also be genotyped to provide data accessible to association studies.



Pepper diversity evaluated in the EVA network (Photo: A. Brunazzi, ISI Sementi)



Illustrations: Loredana Sigillo



Thank you very
much for your
attention

madalena.vaz@iniav.pt



ECP/GR

