



CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

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MISIÓN BIOLÓGICA DE GALICIA



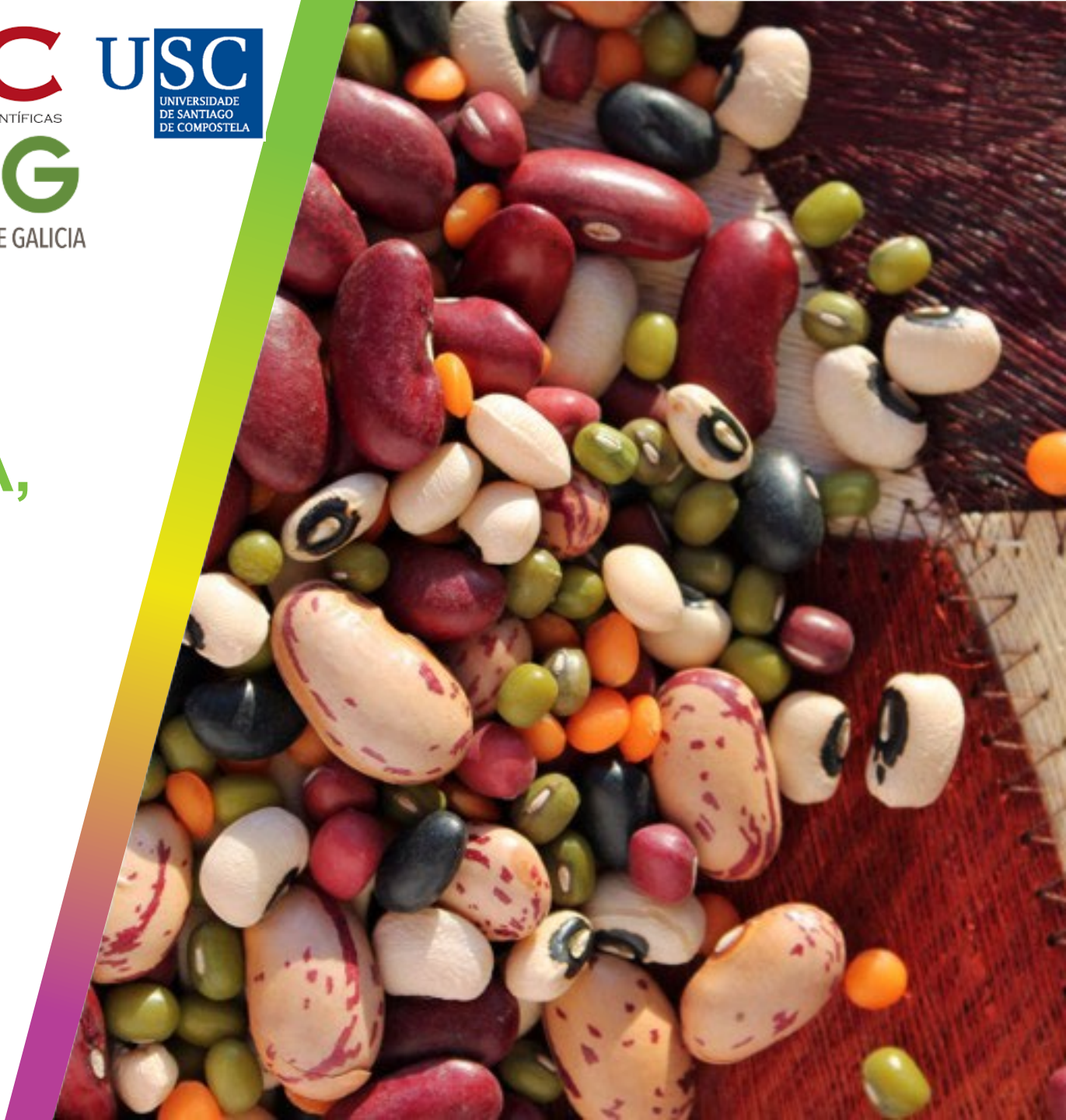
# LEGUMES GERMPASM AND RESEARCH AT THE MBG-CSIC (PONTEVEDRA, SPAIN)

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

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# The MBG-CSIC



- The MBG-CSIC was founded in Santiago de Compostela (Spain) in 1921 and later on the Institute moved to Pontevedra in 1928. Since 2021 the MBG-CSIC has two venues (Pontevedra-main and Santiago de Compostela) and since 2022 there is an association with the Center for Research in Biological Chemistry and Molecular Materials (CiQUS), University of Santiago de Compostela (USC). The Institute is currently a center of integrative biology in agroforestry research with 150 persons (40 researchers).
- Legume research: 1) plant genetic resources of *Phaseolus* (bean), *Pisum* (pea), *Vigna* (cowpea) and *Lupinus* (lupin), 2) breeding for food and feed uses, 3) resistance to biotic and abiotic stresses, and 4) legume-microbiota interactions (rhizobacteria, mycorrhizae, trichoderma).







## The MBG-CSIC Pontevedra, SPAIN

# The grain legume collection by the Biology of Agrosystems Group at the MBG-CSIC



- Grain legumes national and international collections (CODE ESP009):

*Phaseolus vulgaris*: 800. Argentina, Belgium, Bolivia, Cape Verde, Chile, Greece, Honduras, Italy, Japan, Mexico, Portugal, Spain, USA

*Phaseolus coccineus*: 42. Belgium, Bolivia, Chile, Italy, Mexico, Portugal, Spain

*Pisum sativum*: 261. Czech Republic, Portugal, Spain

*Vigna* spp.: 104. Canada, China, Ivory Coast, Philippines, Mauritania, Niger, Portugal, Spain

*Lupinus* spp.: 215. France, Iceland, Poland, Portugal, Spain

- All the collections have passport and characterization data available.
- The main focus is on common bean, also in pea.
- The seeds availability for sharing based on SMTA depends on the status of the accessions (especially stock quantities).

# Expectations from EVA legumes



- Expectations and constraints for an EVA Legumes network from researchers' perspective (material, traits, conditions of operation): the expectations include the initiatives for a common germplasm evaluation system (PHASELIEU Project FAIR5-PL97-3463, 1998-2002, 1, 2), the main constraints are the availability of resources for germplasm evaluation (see below).
  - Interest and capacity to be involved in evaluation of different GL species: the evaluation in field of legume accessions requests relevant human and financial resources.
1. Amurrio M, Santalla M, De Ron AM. (Eds.). 2001. Catalogue of bean genetic resources. Fundación Pedro Barrié de la Maza / PHASELIEU-FAIR3463 / MBG-CSIC. Pontevedra, Spain. 106 pp.
  2. De la Cuadra C, De Ron AM, Schachl R. (Eds.). 2001. Handbook on evaluation of *Phaseolus* germplasm. PHASELIEU - FAIR3463 / MBG-CSIC. Pontevedra, Spain. 87 pp.

# Expectations from EVA legumes



- Ways to cooperate/experience with PPP: the activities in Private Public Partnerships is based in scientific networks and the release of improved varieties to companies.
1. Cooperation with the Spanish plant genetic resources system by the CRF-INIA-CSIC since 1987.
  2. Membership of the recent Spanish legume network RELEG and the Spanish Association for Legumes (AEL) since 2000.
  3. Leadership of the Grain Legumes Working Group of the European Association for Research in Plant Breeding (EUCARPIA) since 2013.
  4. Membership of the Bean Improvement Cooperative (BIC, USA) since 1995.
  5. COST Action. CA22146. Harnessing the potential of underutilized crops to promote sustainable food production. 2023-2027.
  6. Private companies: Sementares (bean, pea), Secebalsa (pea), other small local legume growers.



**Thank you !!**

