

# Update on upcoming Horizon 2020 call for proposal and ECPGR involvement

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# SFS-28-2018-2019-2020: Genetic resources and pre-breeding communities

**Specific Challenge:** Genetic resources (GenRes) play a crucial role in agricultural activities and sustainable forest management in Europe. They hold the key to the adaptation of plants and animals to a changing and more variable climate, yet their **diversity remains largely underused in current breeding, farming and forest management**. Conservation efforts (in-situ, ex-situ) aim to capture, preserve and make available a substantial share of these global assets. However, **access to resources is often limited** by the quality of the material and the information provided by the various conservation sites. With increasing concerns over biodiversity loss and genetic erosion, there is a **need to step up collaborative efforts** to expand and improve the preservation as well as the use of plant and animal GenRes in farming and forestry.

**Scope:** A range of activities implemented by a wide range of stakeholders will seek to enhance management and use of GenRes and implement global commitments in this area. While the focus of activities is on Europe, international resources and activities shall be taken into account.

Proposals should address only one of the following sub-topics:

## A. [2018]: Joining forces for GenRes and biodiversity management (CSA) – (€ 3M)

Activities will provide a framework in which the existing mosaic of European, national/regional structures can join forces to develop and implement ambitious approaches and strategies for the management of crop, forest and animal GenRes. In addition to advancing individual roadmaps, inventories and information tools for crop, forest and animal GenRes, cooperation between the different communities shall foster GenRes conservation within a wider (agro) biodiversity context. Particular care shall be taken to building and widening capacities across Europe and neighbouring countries (including Mediterranean countries), exchanging best practices, harmonising standards as well as sharing resources and data.

## B. [2019]: Adding value to plant GenRes (RIA) (€ 7M)

Activities will address processes, tools and know-how associated with a **dynamic management and documentation of GenRes collections (both ex situ and in situ, as appropriate)**. They **will add value to the preserved germplasm to promote its use**, e.g. in breeding, farming, forestry and by consumers. Work will enable the development and testing of a range of solutions to **enhance quality and efficiency of operations and services across collections**. Major efforts should go into **capturing and characterising the genetic diversity** in germplasm and **revealing novel information to users**. This will include **acquiring** comprehensive and more precise **genotypic and phenotypic information** on GenRes material, understanding the connections between the two, **how they vary** in different environmental contexts and having in place **appropriate (bioinformatic) tools** for data processing, exchange and visualisation. Due account shall be given to **disclosing the potential of less adapted material from genebanks/in situ conservation sites** in relation to valuable traits associated with resilience, adaptability and quality of crops.

Proposals should foresee a task for joint activities with other projects financed under this topic.

## C. [2020]: The GenRes-user interface and pre-breeding activities (IA)

## Expected Impact:

Activities will enhance the status of genetic resources and increase effectiveness of conservation efforts, in particular in Europe.

### ***In the short to medium term work will:***

1. result in the development and/or implementation of **integrated strategies for conservation and use** of crop, forest and animal GenRes as well as for wider biodiversity
2. enhance **user oriented services provided by networks** involved in plant (agriculture and forestry), and animal GenRes management

## Expected impact (continued):

3. help establishing high quality, **harmonised standards for the management and description** of GenRes across Europe (and beyond);
4. **increase the quantity and quality of data** in established information systems for crop, forest and animal GenRes;
5. promote innovative ways of **sharing resources and services between genebanks/in-situ conservation sites** in Europe and beyond

# The process

- June - ECPGR, EUFORGEN and ERFP Secretariats agreed to oversee / facilitate preparation of project proposal on behalf of the three Networks
- July - Outline of a proposal (v.1) agreed among the 3 Secretariats
- August - Proposal "AgroForest Bridge" v.1 circulated to respective Steering Committees for comments and expressions of interest
- 15 September – Comments received



# The process

- September – Agreement that EUFORGEN Secretariat will lead the proposal
- September/October: start definition of partners
- October: drafting of AgroForest Bridge v.2
- 6-8 November: first preparatory meeting in Rome with identified partners

# Principles

- Balanced split of funds across the three Networks
- Secretariats are partners, but offer input-in-kind (PGR)
- Other 4-5 partner per each domain
- Funds largely used to organize workshops involving the three communities, to develop strategies, standards, guidelines, capacity building, communication
- Funds complementing networks' budgets (SC meetings)

# Items under development

- Develop pan-European integrated strategies for conservation of crop, forest and animal genetic resources
- Communication (overarching web portal; GR Newsletter)
- Standards for management and description of genetic resources
- Services: genotyping infrastructure: standards, facilities, capacity building
- Policy and law: issues, solutions, recommendations
- **Crop domain: improve AEGIS system, enrich EURISCO (quality/quantity of data), advance evaluation framework (complementary to Farmers' pride/Dynaversity)**