



### How will the network operate?

#### Network governance

For the network to be sustainable, it needs to be permanently embedded within existing and developing legal and policy frameworks for genetic resources and broader biodiversity conservation, as well as for sustainable development and climate resilience. This requires the support of national governments which are responsible for implementing the provisions of relevant international treaties and agreements, such as the CBD, GPA, ITPGRFA, SDGs, UNFCCC and European Green Deal.

Although not all countries in the region are members of the EU, it is an important and influential political body for the whole region. Embedding the network in the EU framework would provide strong commitment and support throughout the region and links to relevant global and regional policy and legislative instruments. Therefore, the European Commission—which plays a role in developing the overall strategy of the EU and in designing and implementing its policies—is the most suitable body to oversee the development and permanent operation of the new network.



While it is premature to specify the precise network governance structure, an example of how it might operate is given here. Two main governing bodies, both of which would include a balanced representation of all stakeholder groups (see ‘Network membership’) and whose members will be elected on a periodic rolling basis, could be established:

1. **An executive committee:** A decision-making body that would have overall responsibility for the management of the network, including policy development and budget control.
2. **A council:** The body that would elect the members of the executive committee and review and approve its outputs, including policy plans, budget and accounts. Council members could be elected by network members (organizations and individuals) through a process of nomination and voting.

Meetings of the above two bodies would take place on a regular basis.

A general assembly could be periodically convened to allow network members to discuss and vote on issues pertaining to the management of the network, such as policy development and budget expenditure. In cases where a general assembly cannot be arranged (such as in association with a relevant conference), members could have an opportunity to contribute their views via an electronic medium.

A secretariat would be established by the executive committee to carry out the day-to-day management of the network.

National governments would play a vital role in promoting membership of the network, linking it to relevant policy and legal instruments, and in contributing to the development of network policy.

#### Network funding

It is anticipated that the operation of the network would be funded through:

- **Contributions by national governments:** On the assumption that the network would be embedded within the EU framework (see ‘Network governance’), financial support would be provided by EU member states and by non-member countries that have network members based within their jurisdiction (see ‘Network membership – How will members join the network?’).
- **Membership fees:** These would be structured according to different categories of members (organizational, individual, custodian and non-custodian). For example, custodian members may contribute a nominal fee to acknowledge the benefits of membership, while also recognizing their role as managers of plant genetic populations – see ‘Network membership’).
- **Other funding agencies and donors:** The network governing bodies would seek additional funding from other sources.

**Crops important for food and economic security in Europe have populations of wild relatives which are vital as trait donors for crop improvement throughout the region (blue points), including in the Natura 2000 Network (green points), and need to be conserved *in situ* along with crop landraces.**



### For further information

If you are interested in learning more about the network and/or about the Farmer’s Pride project and related initiatives, please sign up to our **mailing list** and visit our website.

**www.farmerspride.eu**

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### Project partners



Cover: *Raphanus raphanistrum*, a primary wild relative of radish, growing on coastal cliffs in the first site in the UK to be formally designated as a crop wild relative genetic reserve – part of the Lizard National Nature Reserve, Cornwall © Hannah Fielder  
Top left: Sakari Raiskio, from the Nordic Heritage Cereal Network, farming landrace rye © Annika Michelson  
Below left: farmer with plants of the landrace eggplant ‘Almagro’, cultivated in central Spain for making pickles © Jaime Prohens  
Inside (clockwise from top left): *Vicia bithynica*, a wild relative of broad bean, growing in Torres Vedras, Portugal © Joana Brehm; cultivation of the Valencian tomato, Spain – a popular local variety © Jaime Prohens; Italian farmers with their landrace apple ‘Rosa Romana’ © Claudio Buscaroli

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## European network for *in situ* conservation and sustainable use of plant genetic resources—in cultivation and in the wild

*A proposal*

**Plant genetic resources—the diversity of crops, their varieties and wild relatives—are essential for resilient agriculture, food, nutrition, economic and livelihood security, as well as for associated culture. However, these resources are being eroded by a range of factors—including intensive land management, unsuitable legal and policy frameworks, and climate change—and current efforts to maintain them are insufficient to halt or reverse this trend.**

The EU-funded Farmer’s Pride project has brought together a range of actors representing the full suite of stakeholder groups with an interest in conserving and using plant genetic resources *in situ* (on-farm, in-garden and in the wild). The project has laid the foundations for a regional network of site, populations and stakeholders—a European network for *in situ* conservation and sustainable use of plant genetic resources.

This document explains the rationale for the establishment of the network, the aim and objectives of the network, who would be involved, what the benefits of membership would be, and how it would operate.

### Why establish this network?

In current times of global transformation—including the increasing human population and climate change—we need greater diversity to sustain our food supplies than ever before as the environmental

conditions in which crops are cultivated become increasingly modified, changeable and uncertain. In the face of these challenges, our food, nutrition and livelihood security depend on the conservation and continual availability of a wide range of plant genetic resources for use by farmers, researchers and plant breeders to diversify and improve our crops—for example, to provide resistance to extreme and uncertain climatic events, and to associated pest and disease outbreaks. Diverse, locally adapted cultivated varieties (‘landraces’ or ‘farmers’ varieties’) and wild relatives of crops are rich sources of this diversity, and therefore provide vital ecosystem services to society by helping to build resilience in agriculture. However, these resources are threatened by a range of factors.

Landrace cultivation has decreased significantly due to a range of economic, social, legal and agronomic factors, and this has led to a corresponding loss of diversity. Crop wild relative diversity is being eroded by unsustainable and intensive land management, habitat loss, degradation and fragmentation—particularly due to development for tourism and expansion of urban infrastructure. Climate change is threatening both cultivated and wild plant genetic resources due to changing environmental conditions and associated pests and diseases, as well as an increase in the occurrence and severity of extreme weather events.

The conservation and sustainable use of plant genetic resources *in situ*—that is, in the locations where they are cultivated in the case of landraces/farmers’





varieties or in their natural habitats in the case of wild species—with backup in *ex situ* facilities to provide access to material by farmers, researchers and plant breeders—is essential to maintain this diversity which is continually adapting to local environmental and management conditions.

The value of these resources and the threats affecting them are recognized by global policy and legal instruments to which the EU and other countries in Europe are parties—most notably, the Convention on Biological Diversity (CBD) in force since 1992, the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (GPA) adopted in 1996, the subsequent Second GPA in force since 2011 and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) in force since 2004. In addition, the maintenance of plant genetic resources is fundamental in the context of the European Green Deal, as well as the UN Sustainable Development Goals (SDGs) and the UN Framework Convention on Climate Change (UNFCCC).

Despite this extensive global legal and policy landscape, there is no framework that provides specific support for plant genetic resources conservation and sustainable use across Europe. Consequently, *in situ* management of plant genetic resources, with complementary *ex situ* conservation, is currently unplanned, uncoordinated and inadequate. To streamline and strengthen our efforts, and to increase the diversity available to support future agriculture, we need an effective and lasting network for *in situ* conservation and sustainable use of plant genetic resources, as well as appropriate support mechanisms in place to permanently embed it within the European biodiversity conservation framework.

### Aim and objectives of the network

The aim is to create a permanent system for Europe-wide *in situ* conservation of plant genetic resources, including associated complementary conservation *ex situ*, and critically, to promote and facilitate the use of more diversity for the benefit of society. It is anticipated that the European network would comprise: a) specific localities where plant genetic resources populations are maintained to agreed minimum standards<sup>1</sup>; b) the custodians of those populations; and c) other stakeholders with an interest in the conservation and sustainable use of plant genetic resources.

To achieve this, the network would:

- Establish a process for the identification, validation and formal recognition of crop wild relative and landrace/farmers' varieties populations, and of their custodians (see 'Custodian members').
- Afford technical support to members (custodian and non-custodian) in the maintenance of their populations, and promote best practices for their management.
- Develop a strategy to increase awareness of the importance of *in situ* conservation and sustainable use of plant genetic resources amongst the stakeholder community, including the general public.
- Leverage resources to support research and development initiatives for improved *in situ* conservation and sustainable use of plant genetic resources.
- Provide a platform and tools to connect the diverse actors in *in situ* plant genetic resources conservation and sustainable use—including farmers, protected area managers, plant breeders,

- community seed banks, policymakers, researchers and other interest groups.
- Impart reliable information and offer technical support to national plant genetic resources programmes to assist in the implementation of relevant international conventions and processes, and to influence policy change in support of *in situ* conservation and sustainable use of plant genetic resources.

### Network membership

#### Who would be the members of the network?

To manage these important genetic resources effectively, a cross-sector, multi-actor collaboration—one which builds on and strengthens existing partnerships, organizations and processes across the spectrum of plant genetic resources conservation and sustainable use actors—is needed. This means that the network would involve:

1. The managers of plant genetic resources populations—farmers, gardeners, communities, private and public protected area managers, local government and other land managers, private and public seed/gene bank curators, including orchards, community seed banks, field gene banks and botanic garden living collections.
2. The direct and indirect users of plant genetic resources—farmers, gardeners, communities, researchers, and the public and private plant breeding and seed sectors.
3. Other actors with an interest in conservation and sustainable use of plant genetic resources—researchers, policymakers, educators, and other interest groups.

#### Types of membership

It is anticipated that both organizations and individuals would be able to join the network:

- **Organization membership:** In establishing a new European network, there is no intention to reinvent the wheel—rather, the aim is to build on existing local, national and regional organizations. These include: local and national seed and grower networks, including farmers' associations; research-focused networks with a mandate from national plant genetic resources programmes; member organizations for the plant breeding and seed sectors; and affiliate bodies for protected area managers.

Many such organizations are already well-established and operate effectively to bring together different actors in the plant genetic resources conservation and sustainable use community. The proposed network would therefore promote membership of such existing bodies and engender cross-sector collaboration between them. It would also act as a catalyst to encourage the establishment of new local and national networks in localities where they do not already exist.

- **Individual membership:** Individuals would also be able to join the network. However, to help promote and sustain existing organizations involved in plant genetic resources conservation and sustainable use, membership would be offered to individuals only if they are not a member of a body affiliated with the new European network (see 'Organization membership'). In such cases, interested individuals would be made aware of options to join via an affiliated body if it exists in their locality.

Whether joining via an affiliated organization or as an individual, it is anticipated that two types of members will be recognized:

- **Custodian members:** For those managing plant genetic resources populations to agreed minimum standards<sup>2</sup>.
- **Non-custodian members:** For all other members.

#### How will members join the network?

Procedures for joining the network will be developed once the initial concept is agreed and steps are in place to realise it. However, on the assumption that the network will be embedded within the EU framework (see 'Network governance'), it is expected that national governments would play a key role in the process. For example, national representatives could be nominated by the government body responsible for plant genetic resources conservation and sustainable use, and these representatives would act as a conduit between the network governing body and organizations and individuals (located in that country) with an interest in joining.

### Why join the European network?

Local, national and regional networks and other organizations each play an important role in conservation and sustainable use of plant genetic resources. However, the various sectors currently tend to operate largely in isolation of one another, and collectively, they do not provide either an effective means of tackling the threats to plant genetic resources or of implementing their systematic conservation across the region, and they do not constitute a sufficiently strong voice to influence policy change.

Therefore, the overarching benefit of joining the European network would be that of making a contribution to something bigger. That is, being part of a regional community of actors in the conservation and sustainable use of plant genetic resources for resilient agriculture, food, nutrition, economic and livelihood security, as well as for the maintenance of associated culture. Being part of this bigger picture would add value to the work of members from all stakeholder groups, providing recognition for their different contributions and fostering greater cross-sector collaboration, understanding and mutual appreciation.



Critically, the new European network is expected to be a powerful force for influencing policymakers and lobbying for policy change in support of *in situ* plant genetic resources conservation and sustainable use—for example, to address laws hindering conservation and development of diversity on-farm and in-garden, and to ensure the implementation of the provisions of the ITPGRFA.

Specifically, membership of the network would:

#### For custodian members....

- Lend recognition at national and regional levels to your plant genetic resources populations, providing added value to your *in situ* conservation and sustainable use activities. This may for example increase opportunities for landrace product marketing through a conservation-related special certification scheme, and provide a unique selling point for protected areas by expanding their role to include agrobiodiversity management, thus giving greater opportunities for sustainable tourism, community engagement and education.
- Ensure that your *in situ* plant genetic resources populations are securely backed up in a gene bank and provide an emergency repatriation service when a population is under threat. Material would be deposited according to terms agreed between the provider and the gene bank.

#### For custodian and non-custodian members....

- Offer technical support and training for *in situ* plant genetic resources conservation and sustainable use activities, as well as guidance in seeking funds to support specific initiatives.
- Provide a platform for access to reliable information, knowledge sharing and collaboration—for example, to facilitate access to information on evidenced-based best practices,

contact with custodians for information and/or plant material of interest, and interaction with other stakeholders to establish community initiatives and project consortia.

- Facilitate access to a greater breadth of plant genetic resources in accordance with the requirements of the ITPGRFA and the CBD Nagoya Protocol.

#### For non-custodian members....

- Afford secure back-up of *in situ* managed populations in a gene bank according to national and regional priorities<sup>2</sup>.



<sup>1</sup> Draft standards are under development and stakeholder review. In the early stages of network establishment, an inclusive and 'learning by doing' approach will be adopted. This will allow for inclusivity of custodians and their populations, the temporal evaluation of management practices, and the subsequent agreement on, and promotion and implementation of appropriate standards over time.

<sup>2</sup> This is because gene banks do not have sufficient space and resources to provide this service for all plant populations.