



THE PLANT GENETIC RESOURCES STRATEGY FOR EUROPE

Presented by Theo van Hintum, Centre for Genetic Resources, The Netherlands (CGN)
on behalf of ECPGR

ECPGR Steering Committee meeting, June 7th 2022, Malmö, Sweden

The need for urgent action

- Plant genetic resources (PGR) are the foundation of our food supply and bioeconomy
 - Access is essential for sustainable agricultural and adaptation to climate change
- PGR are in danger of getting lost and hardly accessible
 - Crop wild relatives (CWR) and landrace populations are disappearing
 - Many genebanks function inadequately
 - Access to PGR is poor – both material and information

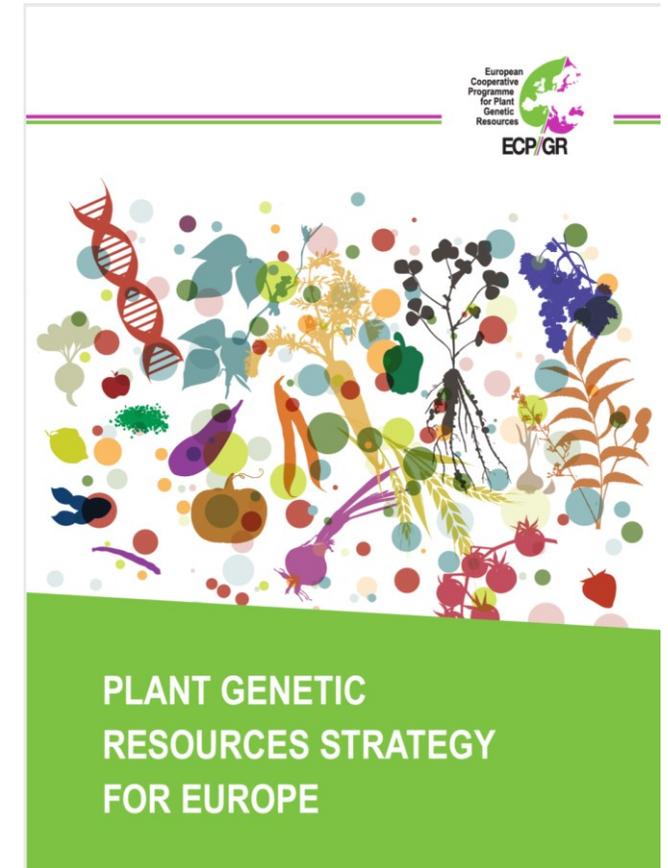
AN URGENT POLITICAL COMMITMENT IN EUROPE IS NEEDED!



Image: Pixabay / Sven Hilker

The Writing of a PGR Strategy for Europe

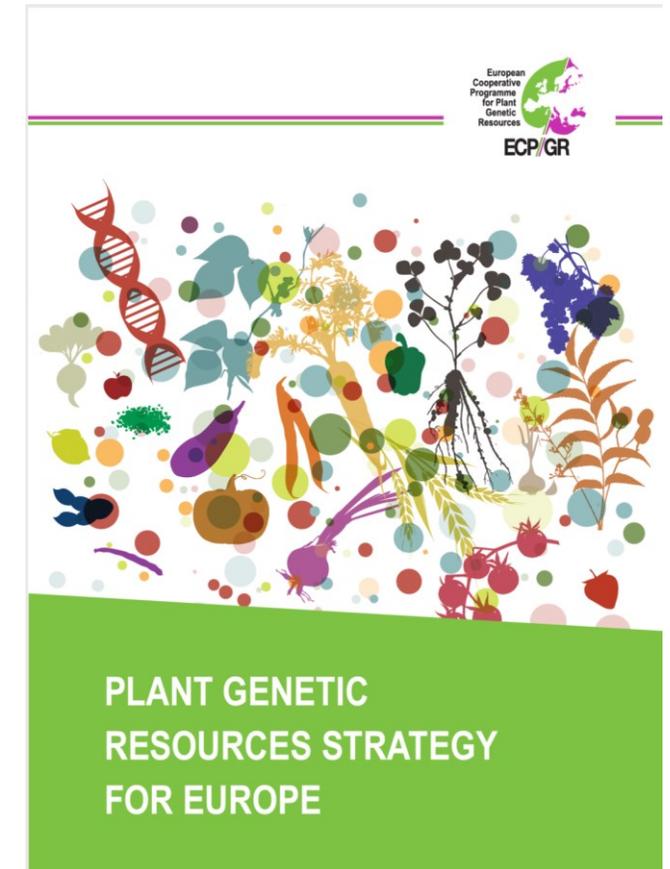
- EU-H2020 Project GenRes Bridge aimed at formulating a European GR Strategy
- Writing process PGR Strategy started during an ECPGR Steering Committee meeting Nov 2020
- Next drafts were prepared by a Drafting Team (ECPGR ExCo + some NC's)
 - Külli Annamaa, Frank Begemann, Theo van Hintum, Vojtech Holubec, Marc Lateur, Marianne Lefort, Lorenzo Maggioni, Benvindo Maças, Dainis Ruņģis, Beate Schierscher, Imke Thormann, Jens Weibull.
- Two versions were circulated amongst stakeholders and their feedback was processed
- Process was supported professionally by ECPGR Secretarial Staff and Science Writer



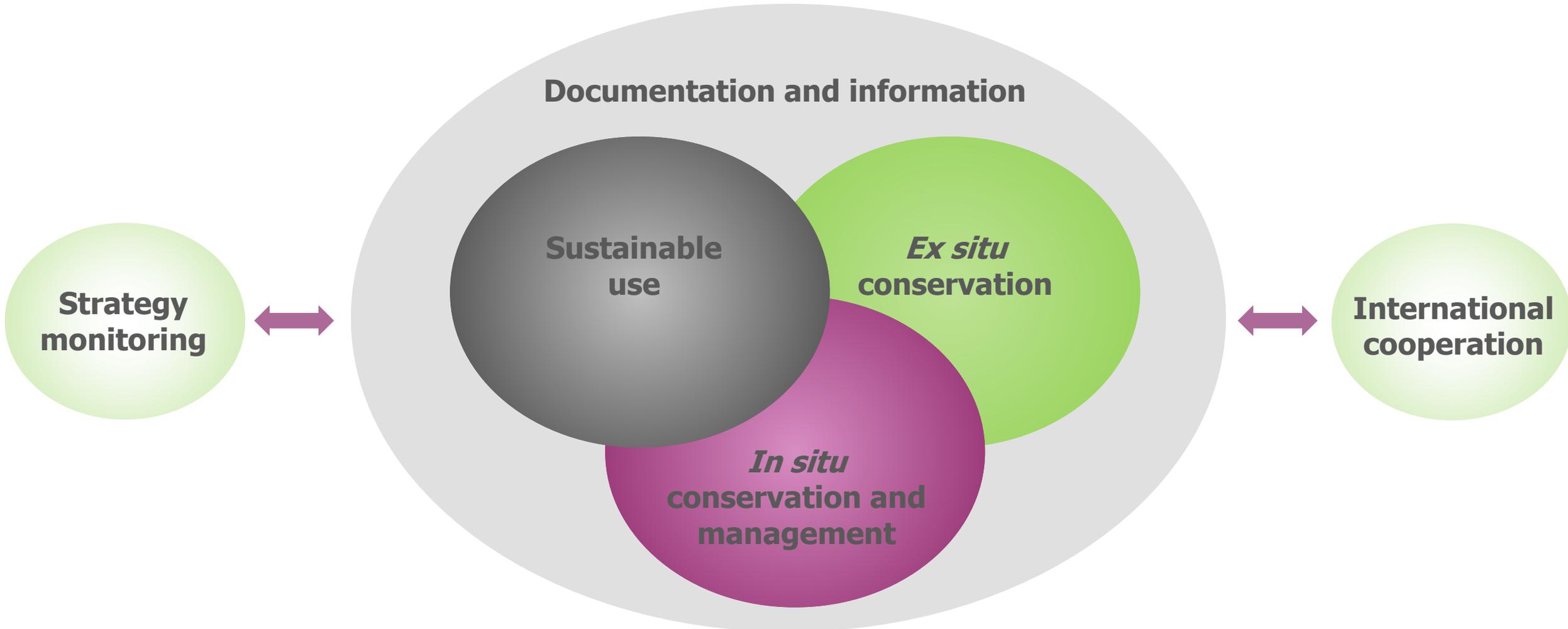
The Writing of a PGR Strategy for Europe

- European PGR Strategy was presented during the 'Launch of the Genetic Resources Strategies for Europe' event 30 November 2021 in Brussels

The screenshot shows the GenRes Bridge website. The header includes the text "GenRes Bridge" and "Genetic resources for a food-secure and forested Europe", along with navigation links: "HOME PAGE", "ABOUT US", "RESOURCES", and "GENETIC RESOURCES STRATEGY FOR EUROPE". The main content area features the title "Recording of the launch event" with a breadcrumb trail: "Home / Genetic Resources Strategy for Europe / Recording of the launch event". Below this, there are social media icons for Facebook, Twitter, and LinkedIn. The main text section is titled "Launch of the Genetic Resources Strategy for Europe" and contains the following text: "An overarching *Genetic Resources Strategy for Europe*, bolstered by individual strategies for plant, animal and forest genetic resources, was launched on 30 November 2021 in Brussels at a meeting of MEPs, EU policymakers and other stakeholders. During the same event, also the three domain-specific strategies for plant, animal and forest genetic resources produced by the three European genetic resources networks were presented. Below you can view the recordings of the various sessions of the event." A video player is embedded with the title "Event Opening and I..." and a play button. To the right of the video, the text reads: "Opening and Introduction: Genetic Resources Strategies for Europe" followed by "Opening of the event by Christian Huyghe (French National Institute for Agriculture, Food and Environment (INRAE), France)". On the right side of the page, there is a sidebar titled "Genetic Resources Strategy for Europe" with links for "Downloadable version", "Press release", "Recording of the launch event" (highlighted in orange), "Programme", and "Webinar 'Preview of the Genetic Resources Strategy for Europe'". At the bottom left, it says "Speakers: Slovenian Presidency of the Council of the European Union".



A new PGR Strategy for Europe



Expanding *in situ* conservation of crop wild relatives (CWR) and wild food plants (WFP)

Despite their potential, CWR and WFP have been neglected and are threatened in Europe

By 2030

-  Comprehensive inventories
-  National conservation strategies including *ex situ* back-ups
-  A European *in situ* network of priority populations



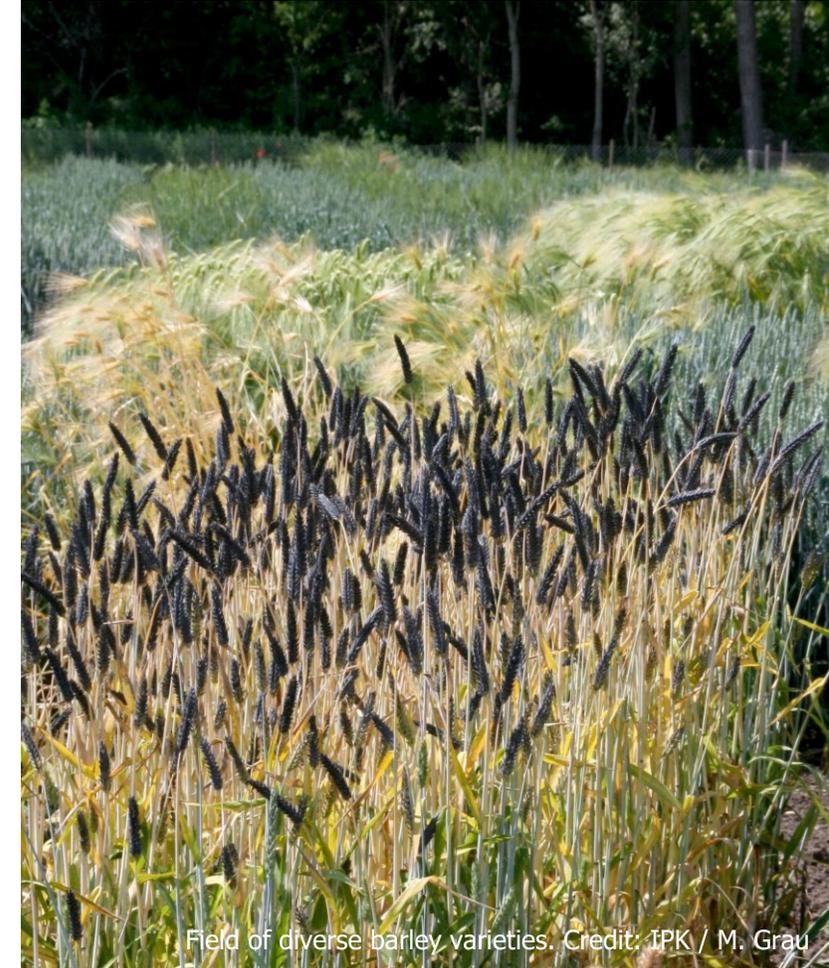
Onion crop wild relative, Italy.
Credit: Bioversity International / A. Lane

Promoting on-farm PGR conservation and management

Despite their benefits for conservation of crop and landscape diversity, on-farm 'landraces' remain at risk

By 2030

- 🎯 European inventory of on-farm 'landraces'
- 🎯 Landrace diversity is conserved on-farm with *ex situ* back-ups



Field of diverse barley varieties. Credit: IPK / M. Grau

Consolidating and sustaining *ex situ* conservation

The variability of quality and efficiency of *ex situ* conservation weakens the overall European infrastructure

By 2030



PGR diversity in European genebanks is conserved reliably and made accessible for sustainable use

Introduce a certification system for genebanks



Coverage of European diversity in genebanks is enhanced



Maize conserved at the Portuguese genebank.
Credit: L. Maggioni

Promoting the sustainable use of PGR

The potential value of PGR European diversity to face agricultural challenges is under-exploited!

By 2030

- 🎯 Access to well-documented genetic diversity
- 🎯 Dynamic crop portals for European crops
- 🎯 Wide phenotypic and genotypic PGR characterization
- 🎯 Systematic use of CWR in research and crop improvement
- 🎯 Farmers and civil society participation to breeding
- 🎯 Regulatory framework to promote diversification



Cucurbits. Credit: L. Maggioni

Strengthening a comprehensive information system for PGRFA

Despite a lot of progress in the last decade, EURISCO needs continuous support and improvements

By 2030

-  Documentation National Focal Points supported and trained
-  National phenotypic data provided to EURISCO via standardized methods
-  FAIR principles applied to PGR data management



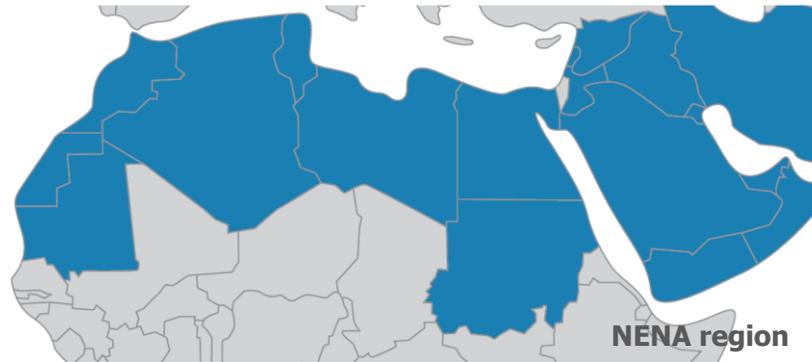
EURISCO is a trusted European and global open-access database repository

International Cooperation

EU and the European region



Europe and other regions

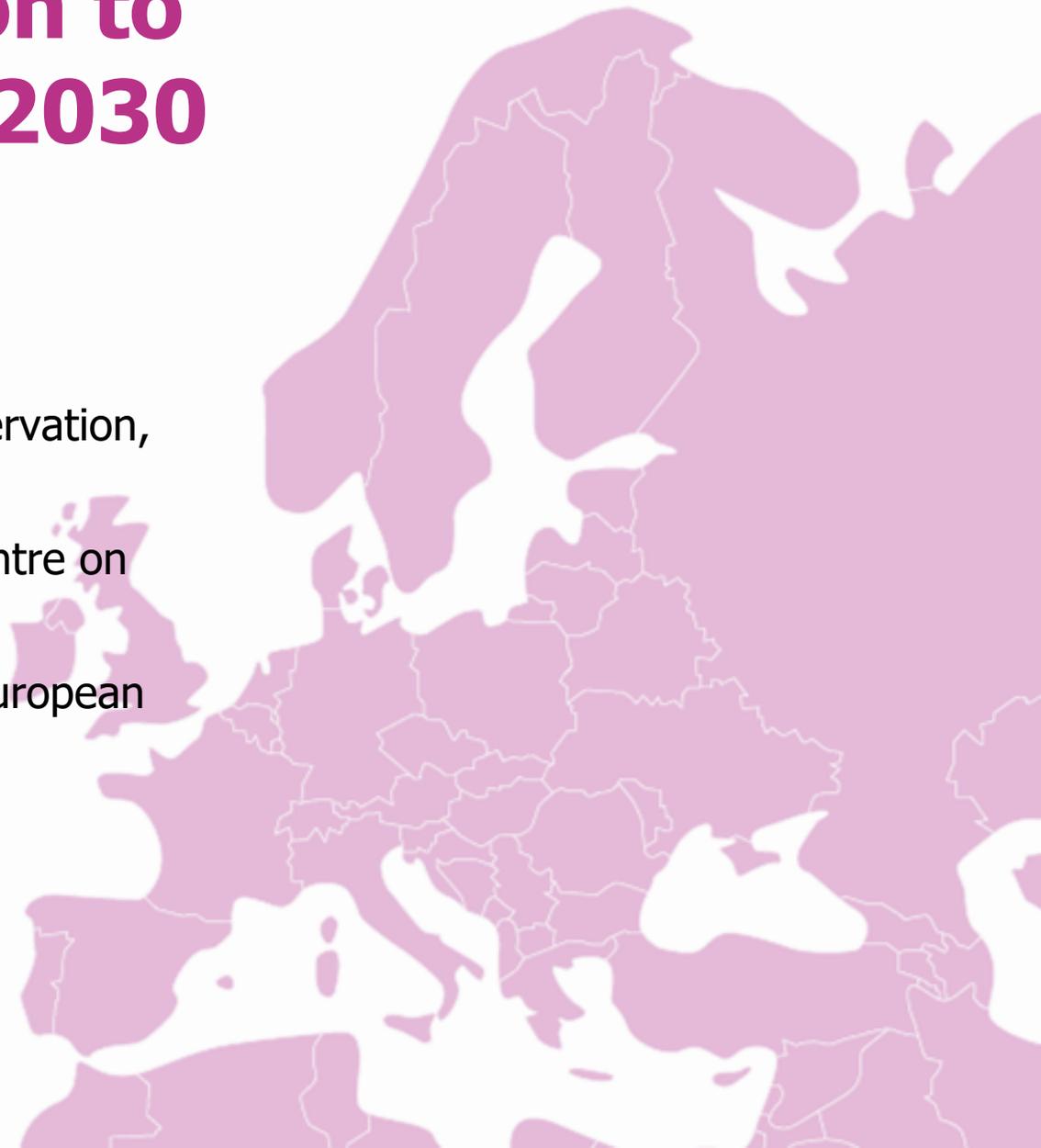


Europe and Global Cooperation



Enabling the transition to achieve the goals by 2030

- A coherent European policy framework
- An efficient long-term infrastructure for conservation, documentation and sustainable use
- A European Coordination and Information Centre on Agricultural Genetic Resources
- A sustained financial basis for collaborative European and national programmes



Conclusion

- PGR are essential for our food security
- Europe's PGR are in danger
- We now have a strategy, developed with many experts and stakeholders, to protect PGR and make it available for use
- Implementation is subject to firm political will in the context of the Green Deal
- Implementation will foster and emphasize Europe's position as a key player in the global arena.

The PGR community is eager to start!



European
Cooperative
Programme
for Plant
Genetic
Resources



ECP/GR

**Many thanks to all those
who have contributed to
the preparation of an
ambitious**

PGR Strategy for Europe