



# ECPGR 2024–2025 GERMAN-FUNDED PROJECTS (FOCUS ON AEGIS)

L. Maggioni  
ECPGR Secretary

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# German-funded projects

## TOTAL: €646,040 between 2021–2026



### Europe's crop wild relatives *in situ* data now in EURISCO



#### The project

The project successfully extended the EURISCO catalogue to include CWR *in situ* data. Early efforts focused on defining clear criteria for identifying CWR populations eligible for inclusion – specifically, those under active conservation and potentially available to users. These criteria were published in the document *Principles for the Inclusion of CWR Data in EURISCO*, developed in consultation with the ITPGRFA Secretariat and endorsed by project partners and the EURISCO Advisory Committee. A standardized data exchange format was established, and CWR National Inventory Focal Points were appointed to manage national data flows into EURISCO. Pilot countries were supported in organizing their internal data collection processes and successfully submitted initial datasets, using EURISCO-specific descriptors. The data were reviewed and uploaded to the system, enabling broader access. As of January 2026, 16 countries have contributed data covering over 19,000 CWR populations. EURISCO now offers a centralized, searchable resource that links users to managing institutions or liaison contacts, facilitating access to the material.

#### Background

Crop wild relatives (CWR) – wild plant species closely related to cultivated crops – are key genetic resources for crop improvement due to their rich and evolving diversity. As climate change intensifies, utilizing this diversity becomes more urgent. Global agreements such as the Convention on Biological Diversity (CBD), the FAO Global Plan of Action (GPA), and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) emphasize the importance of documenting and conserving CWR, especially *in situ*, i.e. in the natural habitats where they occur, and enabling their sustainable use. However, conservation efforts across Europe vary strongly, with scattered or missing data, making it difficult to find and access these resources.

An ECPGR project, funded by the German Federal Ministry of Agriculture, Food and Regional Identity, aimed to improve this situation by encouraging the establishment of national CWR inventories and integrating *in situ* data into the central European Search Catalogue for Plant Genetic Resources (EURISCO).

Funded by:  Federal Ministry of Agriculture, Food and Regional Identity



### NEW AEGIS

#### Strengthening the AEGIS Quality System and EURISCO data coverage



#### About the project

AEGIS is an initiative of the European Cooperative Programme for Plant Genetic Resources (ECPGR) aiming to create a **coordinated, high-quality and cost-effective European genebank system**.

The 'New AEGIS' project was launched at the end of 2024 to strengthen *ex situ* conservation and documentation in Europe by improving transparency, harmonizing quality standards, and enhancing the effectiveness of the European Genebank Integrated System (AEGIS), as well as expanding access to characterization and evaluation data for research and breeding through the European Search Catalogue for Plant Genetic Resources (EURISCO).

New AEGIS is funded by the German Federal Ministry for Agriculture, Food and Regional Identity.

However, differences in operational capacity and documentation standards among Associate Member genebanks limit its full potential.

The New AEGIS project responded to these challenges by **building capacity and quality assurance, and enhancing data management** among AEGIS Associate members through activities including:

- Developing and harmonizing **operational genebank manuals** and **Standard Operating Procedures**
- Establishing and testing a **Genebank Metrics Tool** to monitor performance and increase transparency
- Supporting **peer-to-peer learning** through reciprocal genebank visits
- Enhancing **data availability and interoperability** by integrating existing phenotypic and evaluation data into EURISCO.



### AEGIS PLUS

#### Reinforcing European plant genetic resources *ex situ* conservation through AEGIS implementation and capacity building



#### Background

Genebanks across Europe safeguard more than 2 million accessions of plant genetic resources, providing breeders, farmers and researchers with access to germplasm essential for developing resilient crops in the face of climate change. In 2009, the European Cooperative Programme for Plant Genetic Resources (ECPGR) established AEGIS (A European Genebank Integrated System) to coordinate conservation of unique European germplasm across a decentralized European Collection maintained with agreed quality standards. Today, AEGIS counts 35 member countries and 69 Associate Member institutions, with around 120,000 accessions flagged in the EURISCO database.

Despite this progress, significant gaps remain: conservation protocols, documentation systems and distribution policies vary widely, and only 54% of AEGIS accessions have been safety-duplicated. Funded by the German Federal Ministry for Agriculture, Food and Regional Identity (BMLEH), the predecessor project 'New AEGIS' (2024–2025) laid crucial groundwork for enhancing capacity and transparency through operational manuals, Standard Operating Procedures, a genebank metrics system, and reciprocal peer visits. AEGIS PLUS builds on these achievements to address the persistent gaps identified.

#### The project

AEGIS PLUS is a focused capacity-building initiative running from November 2025, funded by BMLEH. The project aims to enhance genebanks' operational quality and capacity, and ensure accessibility and use of the collections through a diverse range of activities:

#### Documentation & monitoring:

A 2-day workshop will support up to ten genebanks in integrating the Genebank Metrics Tool into their documentation systems, enabling real-time operational monitoring. An expert group will simultaneously revise the genebank operational manual template to make it more user-friendly.




Federal Ministry of Agriculture, Food and Regional Identity



# Extension of EURISCO for Crop Wild

## Relatives (CWR) *in situ* data (Nov 2021–Jun 2025, € 317k)

<https://www.ecpgr.cgiar.org/working-groups/wild-species-conservation/cwr-in-eurisco>



### Principles for the Inclusion of CWR Data in EURISCO

Prepared by Theo van Hintum and José Iriondo, within the framework of the ECPGR project 'Extension of EURISCO for Crop Wild Relatives (CWR) *in situ* data and preparation of pilot countries' data sets' (CWR data in EURISCO), funded by the German Federal Ministry of Food and Agriculture.

Agreed by project partners and EURISCO Advisory Committee in May 2022

#### Introduction

Populations of crop wild relatives (CWR)<sup>1</sup> occurring *in situ* are potentially valuable resources for crop science and plant breeding. Therefore, they need to be conserved and made available to users. However, the current conservation of, and access to these CWR populations varies strongly. *In situ* conservation of CWRs is often in the hands of nature conservation organizations, who are sometimes not even aware that they are managing these resources. Other CWR populations occur in farmers' fields, roadsides and other locations, where they are not managed at all. Furthermore, information about the CWR populations, their occurrence and availability, is hardly available.

The issue of CWRs has recently received much attention, e.g. from EU-funded projects such as Farmer's Pride and from the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). The latter coordinated and led the publication of a descriptor list for CWRs conserved *in situ* (Alercia *et al.*, 2021). For ECPGR and its database EURISCO, the issue of properly handling information about *in situ* CWRs has been on the table for a while, but for various reasons never resulted in substantial improvements.

- Standardized data requirements and data flow mechanism
- EURISCO extended with new tables, upload mechanism and public web interface
- Seventeen countries nominated *in situ* CWR National Inventory Focal Points
- Contribution of 19,000 *in situ* CWR populations that can be made in principle available to users
  - Liaison institutions

# Extension of EURISCO for CWR *in situ* data

## Challenges

- Varying national capacities
- Coordination between agricultural and environmental authorities
- Availability of populations
- Extend list of countries contributing *in situ* populations to EURISCO

# *In situ* CWR in EURISCO (2021–2025)



Watch the video at: <https://www.ecpgr.org/cwr-in-eurisco#c14751>

# NEW AEGIS (2024–2025) € 136,548

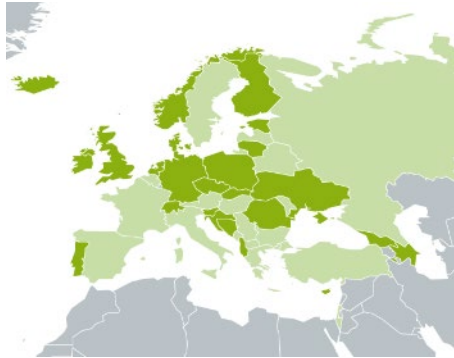
- 22 new operational genebank manuals provided online
- All manuals analyzed and compared. Recommendations for improvement
- 2 crop-specific genebank standards completed (Berries and Maize)
- 3 SOPs published online
- 14 genebanks tested the genebank metrics. A peer reviewed paper published
- 9 reciprocal visits of genebanks completed (**Nordgen**/Austria/Hungary; **Netherlands**/Latvia/Portugal; **Czech**/Georgia/Romania)
- Final in-person meeting to discuss results, 22 May 2025, Prague

# AEGIS Plus (2025–2026) € 175,076

- Trainings for genebank managers
- Updated template for operational genebank manual
- 12 reciprocal visits of genebanks (also field genebanks):  
(Nordgen/JIC/Madeira; Netherlands/Albania/Italy; Czech/Serbia/Warwick;  
Reading/Walloon/Dresden)
- Desk study on access to AEGIS material
- Support for safety duplication
- Final in-person meeting jointly with Genebank Managers Network

# AEGIS Membership

2010



25 countries  
19 Associate Member  
(AM) Agreements

2016



34 countries  
66 AM Agreements

2023-2026



2023

35 countries  
68 AM Agreements

→

2026

35 countries  
76 AM Agreements

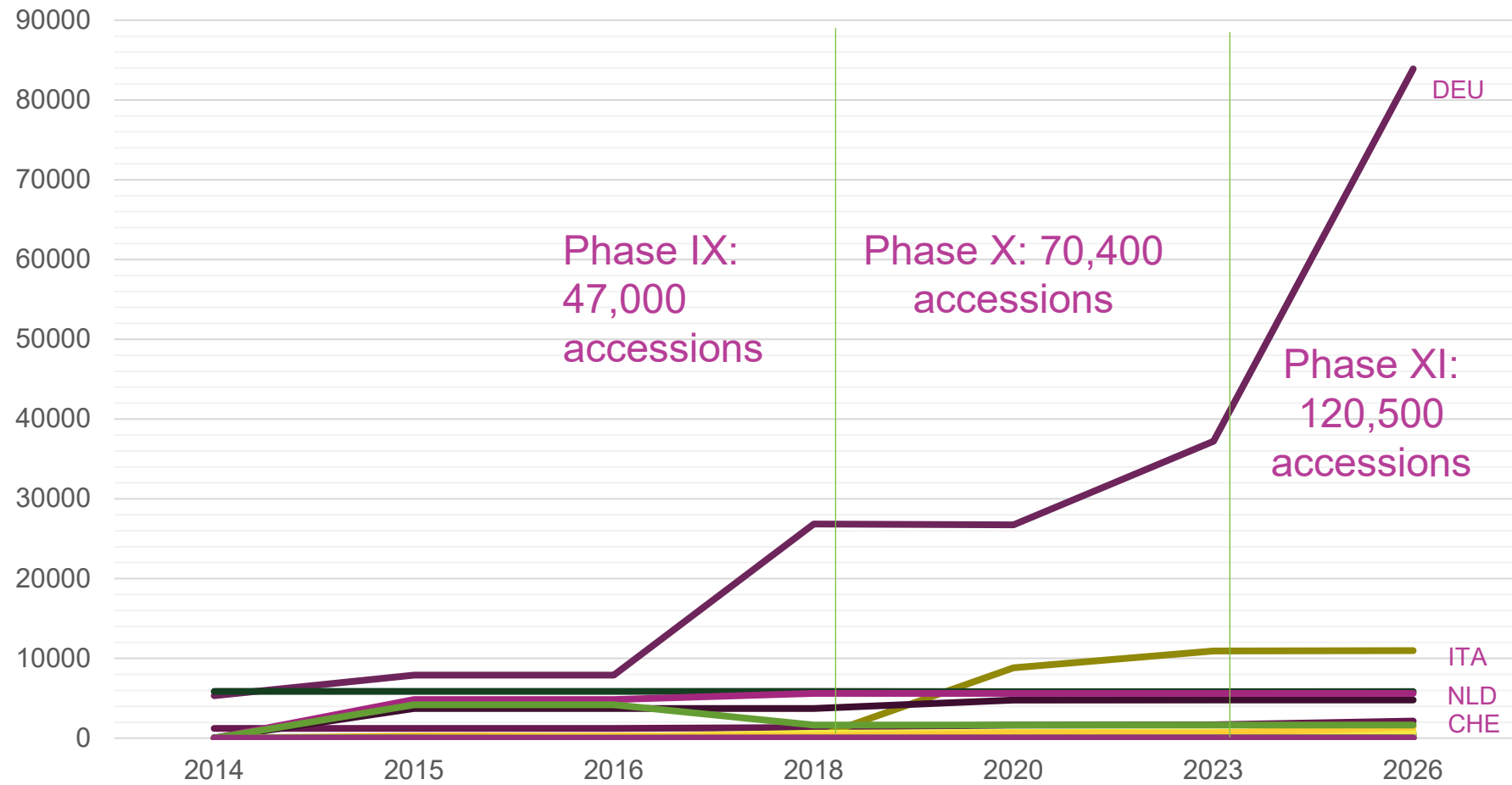
France: Declaration of Intent?  
Spain: Possible membership?  
Greece: ??  
North Macedonia ??

# The European Collection (May 2026)

| Country                   | No. of accessions<br>May 2026 | Growth since<br>end 2023 | %<br>increase |
|---------------------------|-------------------------------|--------------------------|---------------|
| Albania                   | 698                           | +690                     | 86%           |
| Austria                   | 619                           | +619                     | undefined     |
| Belgium                   | 2                             |                          |               |
| Bosnia and<br>Herzegovina | 29                            |                          |               |
| Bulgaria                  | 391                           |                          |               |
| Croatia                   | 90                            |                          |               |
| Czechia                   | 2,143                         | +448                     | 26%           |
| Estonia                   | 408                           | +273                     | 202%          |
| Germany                   | 83,896                        | +46,676                  | 125%          |
| Hungary                   | 559                           | +559                     | undefined     |
| Italy                     | 10,974                        | +56                      | 0.5%          |
| Latvia                    | 27                            |                          |               |
| Lithuania                 | 45                            |                          |               |
| Montenegro                | 31                            |                          |               |
| Netherlands               | 5,838                         | -2                       | -0.03%        |
| Nordic Countries          | 4,785                         |                          |               |
| Poland                    | 443                           |                          |               |
| Portugal                  | 92                            | +6                       | 7%            |
| Romania                   | 822                           | +70                      | 0.9%          |
| Slovakia                  | 1,381                         | +741                     | 116%          |
| Slovenia                  | 21                            |                          |               |
| Switzerland               | 5,611                         |                          |               |
| United Kingdom            | 1,659                         |                          |               |
| <b>Total</b>              | <b>120,564</b>                | <b>+50,140</b>           | <b>71%</b>    |



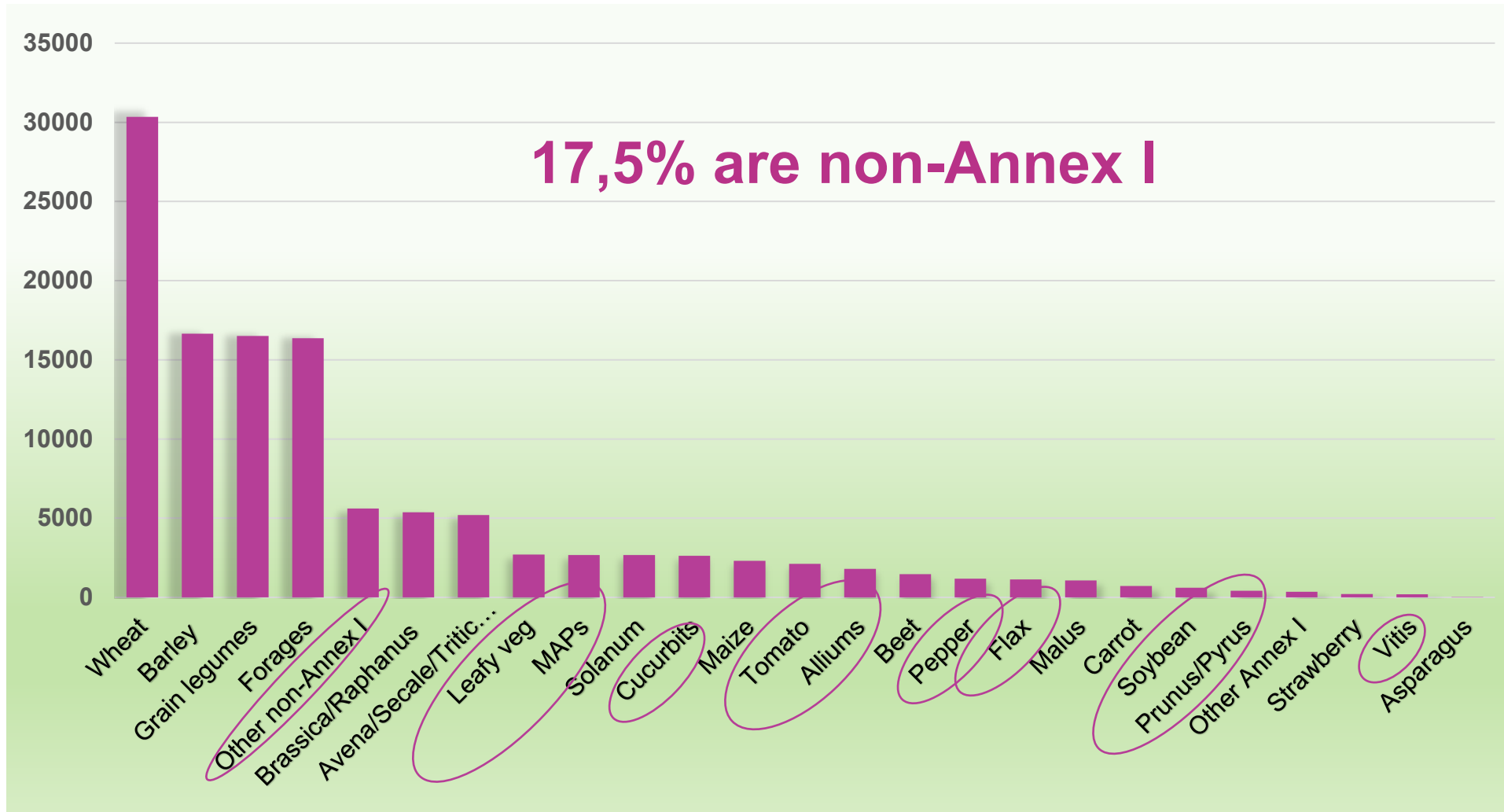
# AEGIS - European Accessions growth



# AEGIS statistics – 2026

|   | May 2026  | Difference 2023    |
|---|---|--------------------|
| Members   | 35  | -                  |
| Non-members   | France, Greece, North Macedonia, Spain                                      | -                  |
| AEGIS members with no accessions                              | Azerbaijan, Belarus, Georgia, Ireland, Serbia, Türkiye, Ukraine             | -2                 |
| Associate members institutions                                | 76  | +8                 |
| AEGIS members with no Associate member inst.                  | Ukraine   | -3                 |
| Associate members inst. not contributing to AEGIS             | 42 (55%)  | -4%                |
| Total accessions of national origin in EURISCO (est. May '25) | 468,168   |                    |
| Total accessions in AEGIS                                     | 120,564 <b>(26%)</b><br>DEU 70%; ITA 9,1%; NLD 4,8%; CHE 4,6%; NordGen 3,9% | + 50,138<br>(+71%) |

# European Collection by crops



# AEGIS Quality System (AQUAS)



- **35** operational genebank manuals published (+**21**)
- **4** SOPs published
- 12 WGs have completed crop-specific standards (+**3**)
- **Genebank metrics tool developed, published and tested**
- Safety duplication at 54% – **ongoing supported activity (AEGIS Plus)**
- Peer review
  - GenRes Bridge: 3 genebanks (2019)
  - AGENT: 12 genebanks (2022-2024)
  - New AEGIS: **9 genebanks** (2025)
  - AEGIS Plus: **12 genebanks** (2026)
- **Blueprint for certification scheme developed (Pro-Grace)**

# AEGIS Safety-duplication – compliance!

|  |        |                          |
|--|--------|--------------------------|
| <b>AEGIS accessions with an official safety-duplication site registered in EURISCO</b> | 65,370 | 54% of total             |
| Safety-duplicated outside the country  | 57,837 | 88% of safety-duplicated |
| Safety-duplicated in Svalbard  | 45,684 | 70% of safety-duplicated |
| Safety-duplicated only in Svalbard   | 40,127 | 61% of safety-duplicated |

# Reflections on AEGIS (desk study on accessions' availability)

- AEGIS has not yet significantly increased user demand, recognition, or accessibility compared to non-AEGIS material
- Designations have grown slowly, requestors do not consistently treat AEGIS as a quality label, and logistical difficulties in providing material persist
- AEGIS has successfully created a shared framework for quality management across European genebanks, fostering trust and interoperability across Europe
- AEGIS offers a practical mechanism for identifying capacity needs and priority setting
- Continued implementation, with focused improvements to the quality system and better communication to users, is likely to consolidate these gains while gradually addressing the shortcomings.



**THANK YOU**

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