#EU GREEN WEEK

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Plants for the Future
European Technology Platform

Are we investing enough to fully exploit plant breeding for a more circular bioeconomy?

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EU Green Week Partner Event

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Focus of our study

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Funding trends for R&I in plant breeding including developments related to funding within relevant subprogrammes

Project profile trends including target TRLs, budgets, consortia size and types of partners (public or private)

Plant breeding innovation trends including the level of promotion and use of different breeding methods (conventional, NGTs or GMO)

› All budgets were adjusted to 2020 prices
› Model plant species and national funded projects were not included

Key numbers (as of June 2024)

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235

Projects funded

with clearly delineated EU funding.

Additional 35 projects with less transparent funding schemes.

3

Subprogrammes

Which funded most of (94%) of the plant breeding projects: ERC, MSCA, Agrifood.

The remaining 6% were funded through Industrial Leadership, Spreading excellence and EIT

2,061

Participants

contributing to projects. 30% of partners contributed to more than 1 project, thus **1,013 individual participants**

Over 200 participants contributed to the 35 projects with incomplete information

Funding trends for R&I in plant breeding

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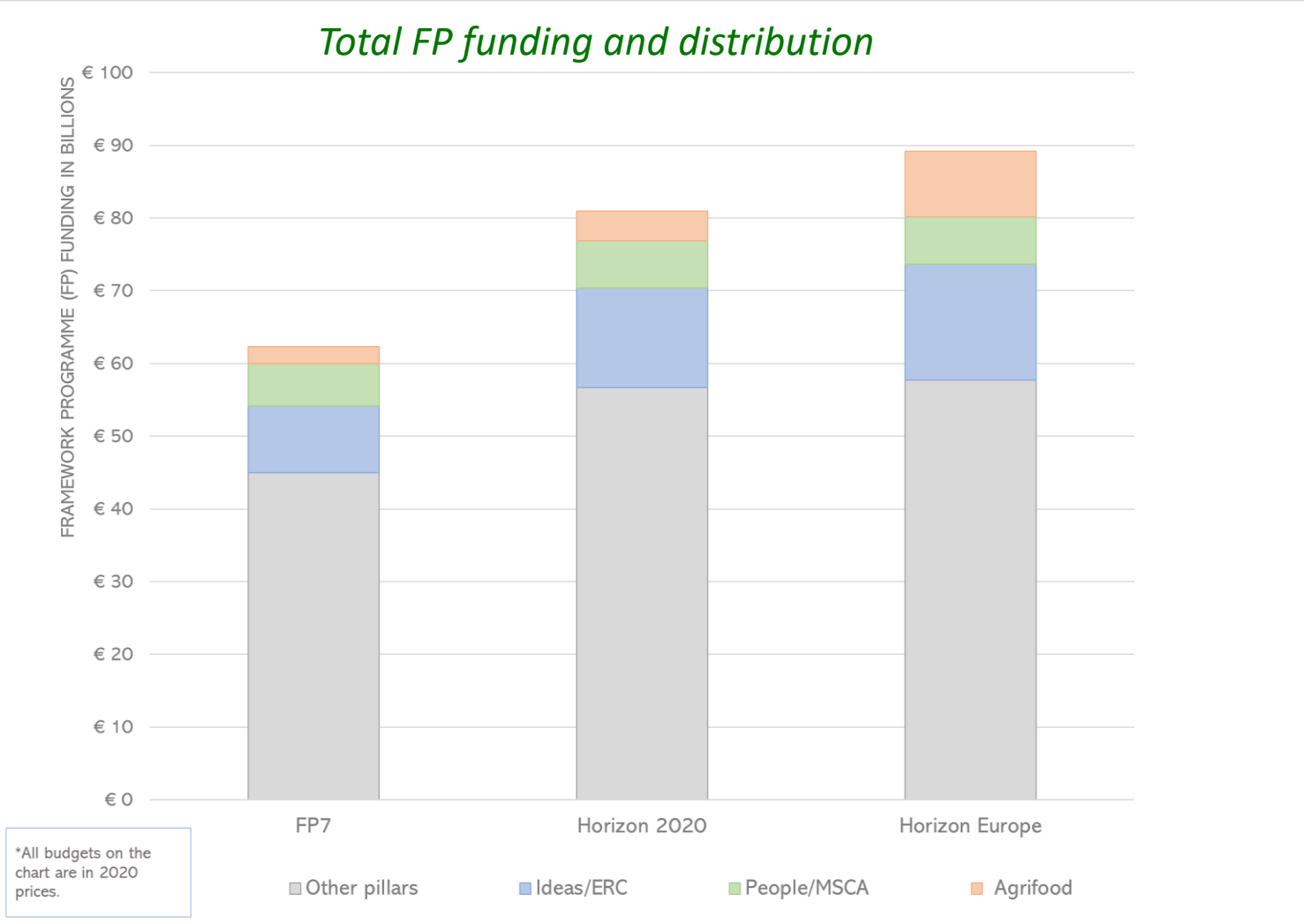

From FP7 to HE

Total FP funding **+42%**

Funding for R&I in plant breeding **+9%***

ERC total funding **+73%**

R&I in plant breeding **-8%***

MSCA total funding **+13%**

R&I in plant breeding **-63%***

Agrifood total funding **+277%**

R&I in plant breeding **12%***

Funding trends for R&I in plant breeding

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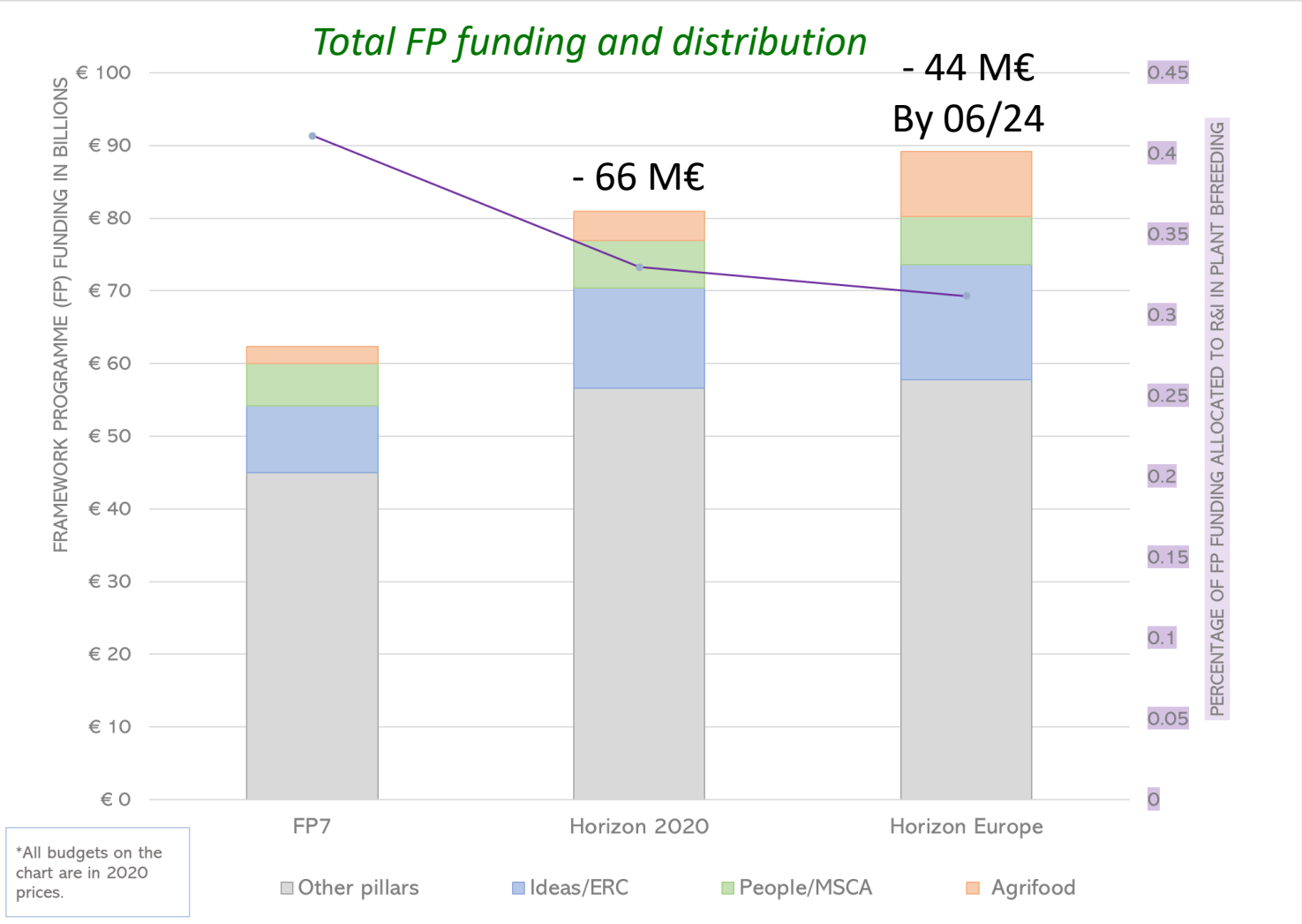

From FP7 to HE

Total FP funding **+42%**

Funding for R&I in plant breeding **+9%***

Allocation of total FP funding for R&I in plant breeding **-0.1%**

Total funding for R&I in plant breeding

FP7 256 M€

H2020 267 M€

HE 138 M€ (as of June 2024)

Project profile trends – Agrifood cluster

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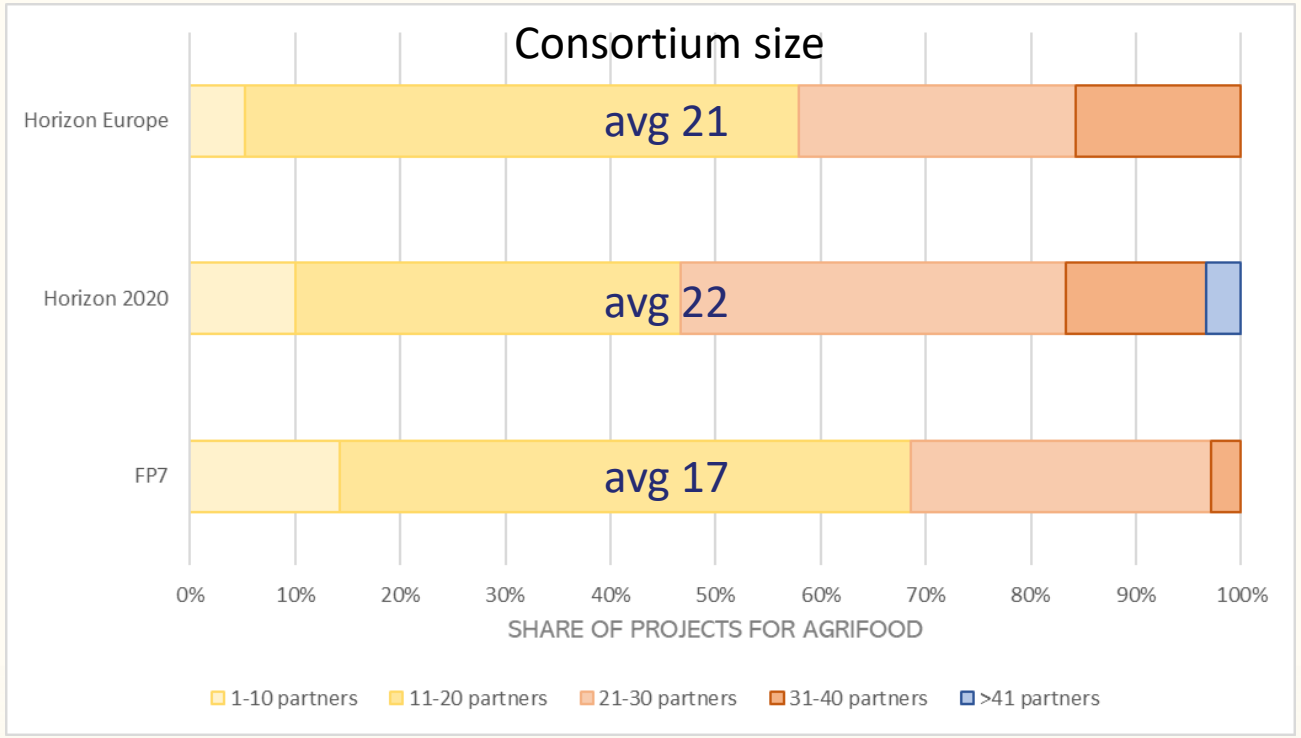

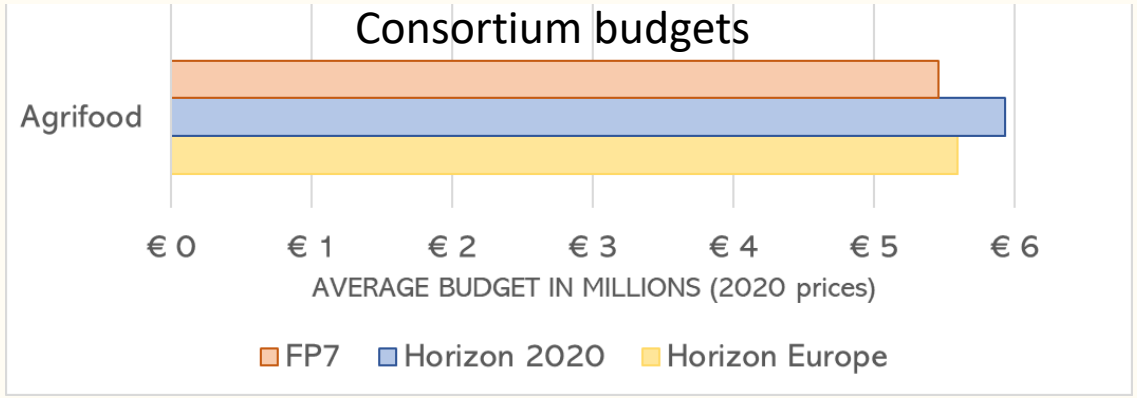

Funding allocation per project remains stable (5.5 - 5.9 M€)

Consortium size has increased

Project length is also stable (4 - 5 years)

➢ **Funding per partner is decreasing**

Participation of the private sector in EU plant breeding-related projects

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		FP7	Horizon 2020	Horizon Europe
Involvement in R&I in plant breeding	Private Partners	29%	32%	35%
	Public Partners	71%	68%	65%
Funding dedicated to plant breeding-related projects	Private Partners	17%	20%	22%
	Public Partners	83%	80%	78%

- Private partners typically received an average of €197,500, while public partners received an average of €381,600.
- Funding for private partners participating in plant breeding R&I in H2020 (20%) was lower than the average for the entire FP (28%).

Plant breeding innovation trends

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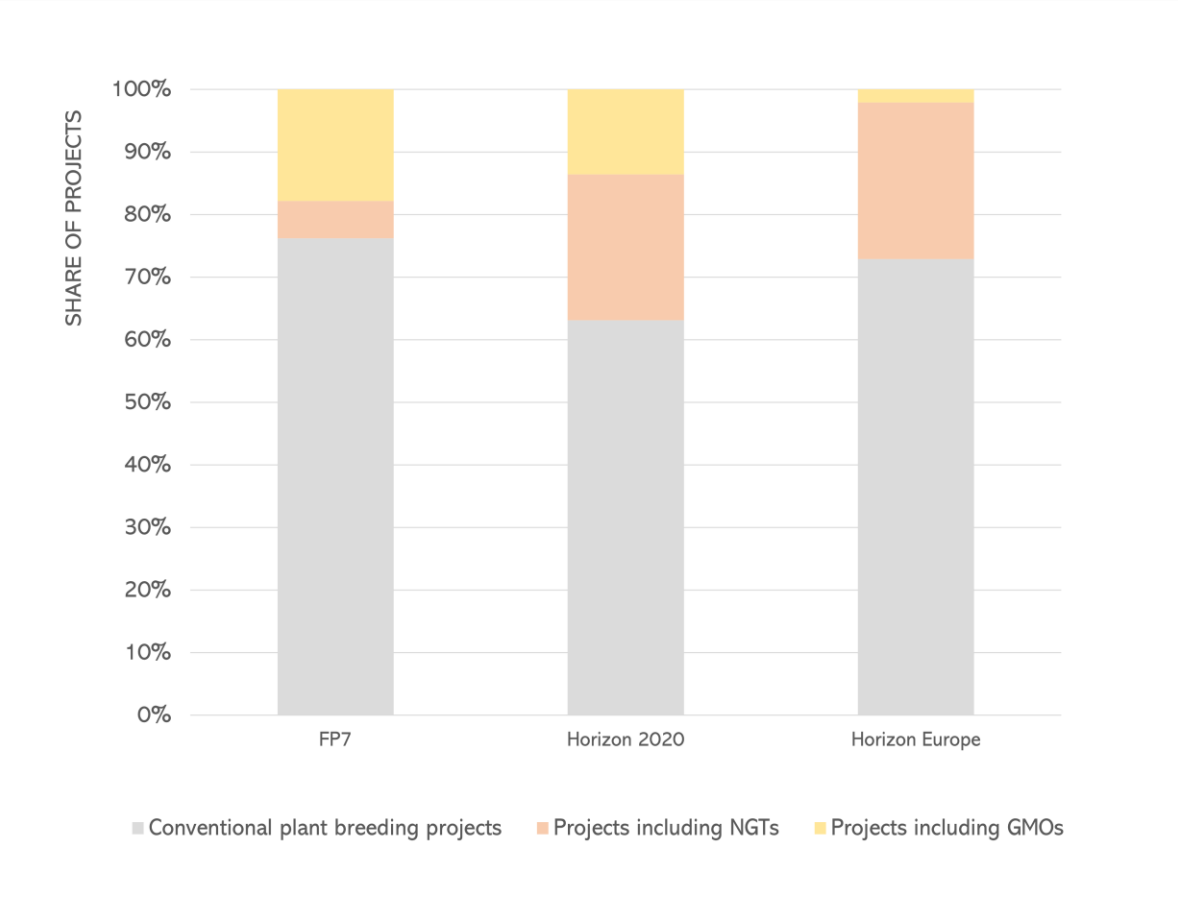
Use of conventional methods, GM and NGTs in plant breeding–related projects



- The use of traditional GM has almost disappeared, with only 1 project in HE, so far
- The use of NGTs has increased. However, many project partners highlighted challenges to meet project targets, following the ECJ ruling and barriers to conduct field trials
- **The momentum gained in H2020 in the use of PBI has disappeared in HE**

Growing restrictions in the use of PBI

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› In FP7, calls were broad and encouraged plant breeding innovation

› In H2020, calls became more detailed and specific, especially regarding the applicability of project outcomes

> A new requirement that outcomes should "*benefit both conventional **and** organic agriculture*"

In H2020, **20% of plant breeding-relevant calls** (4) included that requirement, with only 1 call containing a more flexible **and/or**

› In the first half of HE, **~44% of plant breeding-relevant calls** included the strict **and** requirement

Providing Strategic Direction for EU R&I to reach the Green Deal goals

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Horizon Europe aims to fund solutions to support the implementation of the EU Green Deal goals

EU R&I partnerships and **missions** have been established focusing on biodiversity, soil, water, agroecology, sustainable food systems, animal health and welfare, and data and digitalisation.

While these initiatives are important, we highlight two shortcomings

1. All the mechanisms are public-public, no dedicated mechanism to involve the private sector (except the CBE JU)
2. **Plant breeding is not strategically addressed anywhere**

Call to Action

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Plant breeding was highlighted as a "***key strategic research area***" in the Strategic Plan for 2nd half of HE, and a specific recommendation on **plant breeding innovation** was included in the report from the Strategic Dialogue and the Vision for Agriculture

The report on EU competitiveness, the Strategic Dialogue and the Vision highlighted the **benefits of public-private partnerships** to translate research outcomes and reduce the **innovation gap**

Plant breeding has a huge potential to contribute solutions to ensure sufficient high-quality food, feed and raw materials for the wide bioeconomy, but it is currently not being strategically supported

Plants for the future is calling for a dedicated mechanism (public private partnership) to ensure sufficient, long term and EU-wide coordinated support for R&I in plant breeding in FP10

Recommendations for the rest of HE and FP10

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Increase funding allocation for R&I in plant breeding, covering all TRLs, by implementing a dedicated, strategic EU-wide coordinated mechanism to support R&I in plant breeding, ensuring close collaboration between the public and private sectors, to ensure maximum impact

Promote more opportunities for R&I in plant breeding in Pillar 3 subprogrammes Innovative Europe and Widening participation and spreading excellence

Promote, or at least do not restrict, the use of plant breeding innovation in plant breeding-relevant calls, so that Europe does not fall behind its global competitors

Increase funding for the MSCA subprogramme to ensure training for the next generation of highly skilled and competitive researchers in plant breeding R&I

Provide adequate funding to research calls to enable longer-term plant breeding-related projects, thereby ensuring research outcomes can be fully exploited within the lifetime of the project, or through dedicated research calls aimed at the continuation of successful projects

Attract more participation of the private sector in plant breeding-related projects by reducing administrative burden and ensuring sufficient funding

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Check out our Plantastic Discoveries for bite-sized insights on plant breeding!

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