

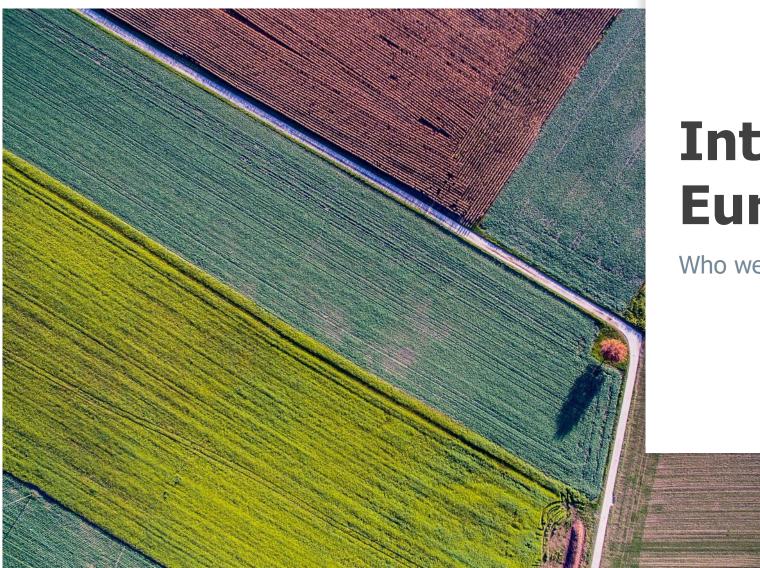
## Green Deal & Farm to Fork Strategies of the EU

CropBooster-P Online-Meeting

8<sup>th</sup> June 2021







#### Introducing **Euroseeds**

Who we are



#### **Introducing Euroseeds**

- Sinlge voice of the European seed sector
- Inform Represent Lobby

#### On all seed related issues:

- seed marketing, incl. GM and organic seed
- IPRs; biodiversity; access; research
- plant/seed health; seed treatment; environment
- land use and food production
- Help solve collective problems of members



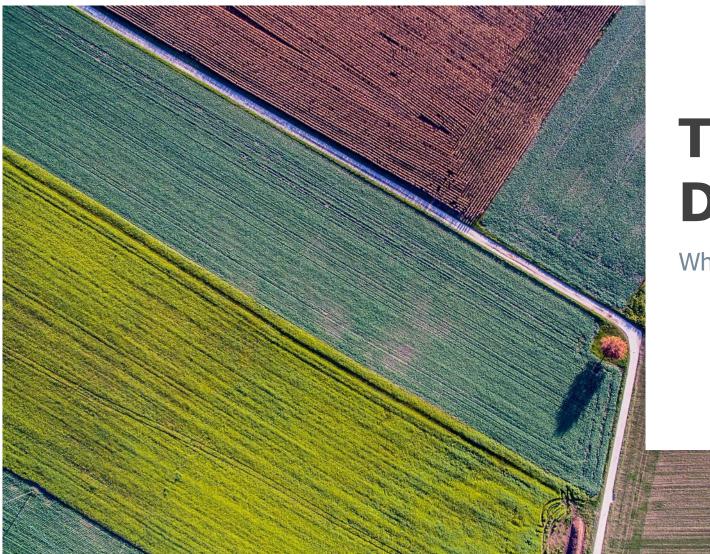


#### **Euroseeds' principal role**

- Inform Represent LobbyOn all seed related issues:
  - seed marketing, incl. GM and organic seed
  - IPRs; biodiversity; access; research
  - plant/seed health; seed treatment;environment
  - land use and food production
- Help solve collective problems of members







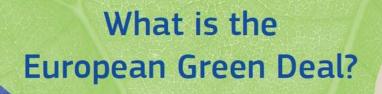
## The EU Green Deal

Why it matters



#### **European Green Deal**

- Goal: to achieve climate neutrality by 2050
- Roadmap with actions to:
  - boost the efficient use of resources by moving to a clean, circular economy;
  - restore biodiversity and cut pollution
- The European Green Deal...
  - is a growth strategy
  - will include all EU actions and policies
  - aims at fostering investments towards climate and environment
  - will impact EU agriculture



December 2019 #EUGreenDeal

The European Green Deal is about **improving the well-being of people**. Making Europe climate-neutral and protecting our natural habitat will be good for people, planet and economy. No one will be left behind.

#### The EU will:



Become climate-neutral by 2050



Protect human life, animals and plants, by cutting pollution



Help companies become world leaders in clean products and technologies

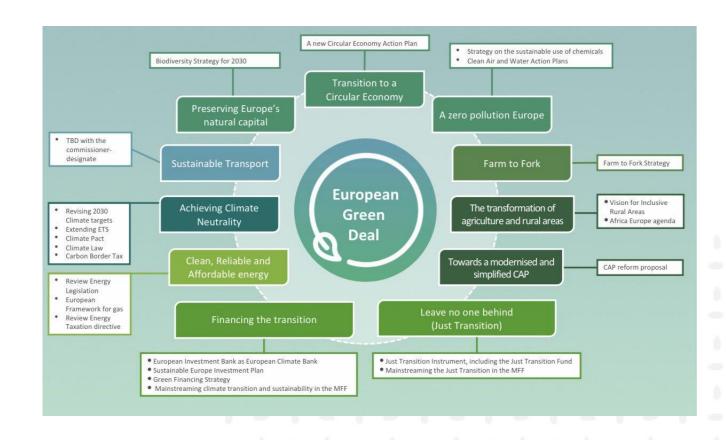


Help ensure a just and inclusive transition

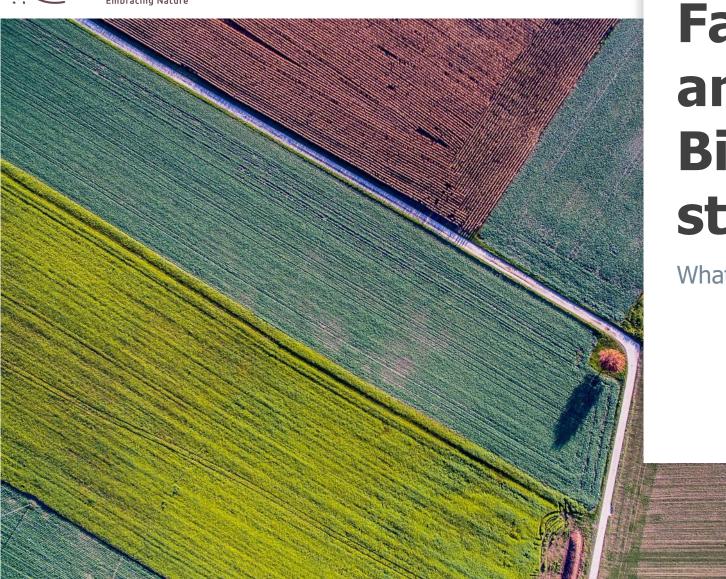


#### **European Green Deal**

- Includes all sectors and policies
- Specifically for plants/seeds:
  - Reduction of chemical pesticides and fertilisers
  - Increase area under organic farming
  - Innovation in plant health and crop protection (potential role of sustainable innovative techniques)
  - Others: carbon in soil, nutrient management, water quality...







# Farm to Fork and Biodiversity strategies

What's in it (in detail)





#### From Farm to Fork:

Our food, our health, our planet, our future

The European Green Deal

#### Bringing nature back into our lives

EU 2030 Biodiversity strategy



The use of pesticides in agriculture contributes to pollution of soil, water and air. The Commission will take actions to:

- reduce by 50% the use and risk of chemical pesticides by 2030.
- reduce by 50% the use of more hazardous pesticides by 2030.



The excess of nutrients in the environment is a major source of air, soil and water pollution, negatively impacting biodiversity and climate. The Commission will act to:

- reduce nutrient losses by at least 50%, while ensuring no deterioration on soil fertility.
- √ reduce fertilizer use by at least 20% by 2030.



Organic farming is an environmentally-friendly practice that needs to be further developed. The Commission will boost the development of EU organic farming area with the aim to achieve 25% of total farmland under organic farming by 2030.

#### Other

#### Circular Economy Action Plan

The European Green Deal

#### Eliminating pollution

The European
Green Deal

Etc.



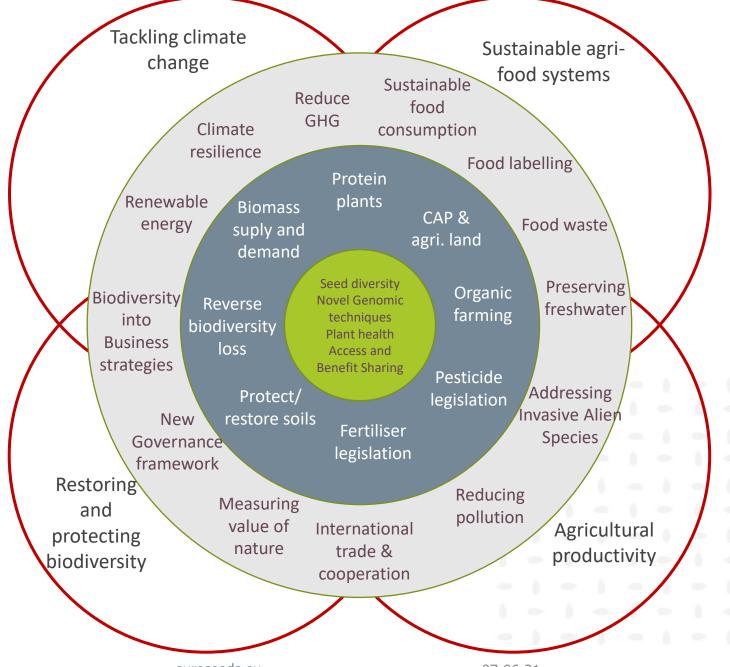
#### Farm to Fork / 2030 Biodiversity strategies



- EU's GHG emissions
  - To reduce the dependency on critical feed materials (e.g. soya grown on deforested land) by fostering EU-grown plant proteins
- Plant health
  - Protect plants better from emerging pests and diseases, and for innovation
  - New innovative techniques, including biotechnology and the development of bio-based products
- Seed security and diversity
  - Have access to a range of quality seeds for plant varieties adapted to the pressures of climate change
  - Ensure easier market access for traditional and locally-adapted varieties, including for organic farming
- Organic farming
  - Action Plan on organic farming Enhancing genetic biodiversity and increasing yields (action 19)
    - Earmark funding under Horizon Europe to support the preservation and use of genetic resources, prebreeding and breeding activities, and the availability of organic seeds
    - Support research and innovation on improving organic yields











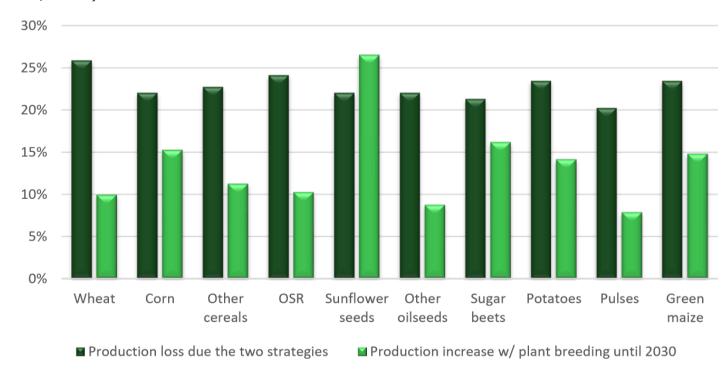
### Ex-ante impact assessment



- Expected impact of the full application by 2030 (early reactions from Euroseeds, Farm Europe, USDA):
  - Reduction of EU crop production around 10-20%
- HFFA Research GmbH launched a new study "The socio-economic and environmental value of plant breeding in the EU,
   specifically considering the EU's "From Farm to Fork" and "Biodiversity" strategies"
  - Assuming:
    - 1. An inclusion of non-productive land 10 percent of all agricultural land by 2030
    - 2. An increase of the area under organic farming 25 percent of all agricultural land by 2030
    - 3. A reduction of the use of chemical PPP 50 percent reduction by 2030 vs. the status guo and
    - 4. A reduction of nitrogen fertilizers 20 percent reduction by 2030 vs. the status quo
  - Estimated reduction of EU crop production around ~ 23% (10% due to non-productive land and 13% due to lower yields)

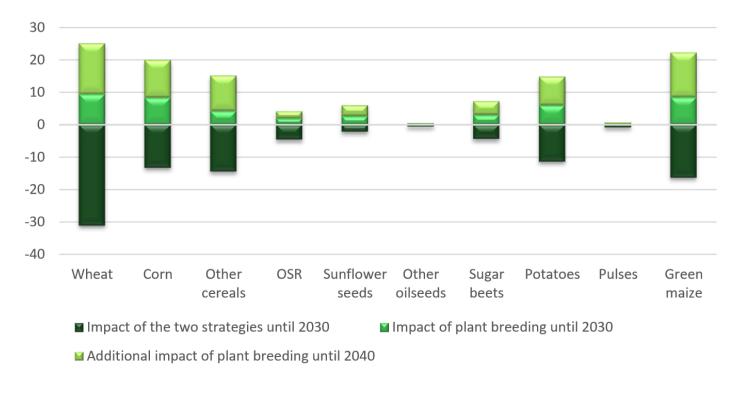


Production effects in 2030 of the "Farm to Fork" and "Biodiversity" strategies vs. with plant breeding progress between 2020
 and 2029 in the EU (HFFA, 2021)



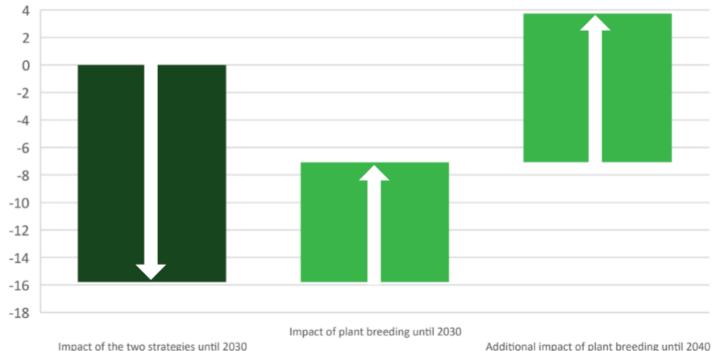


Comparing (above) and balancing (below) partial market supply effects of the two strategies with plant breeding progress until
 2040 in the EU (in million tons) (HFFA, 2021)





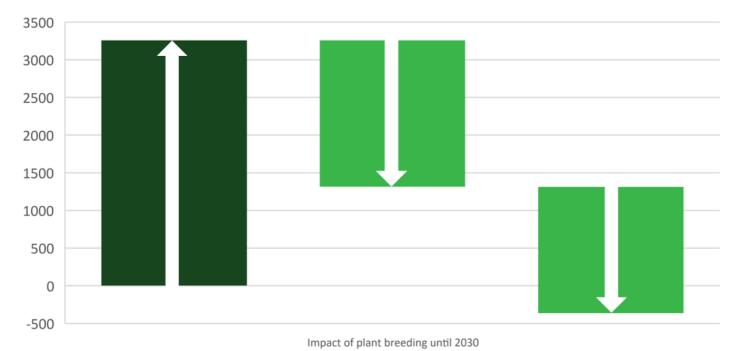
Comparing and balancing partial sectoral income effects of the two strategies with plant breeding progress until 2040 in the EU (in billion EUR) (HFFA, 2021)



Additional impact of plant breeding until 2040



Comparing and balancing partial CO2 emission effects of the two strategies with plant breeding progress until 2040 in the EU
 (in million tons) (HFFA, 2021)



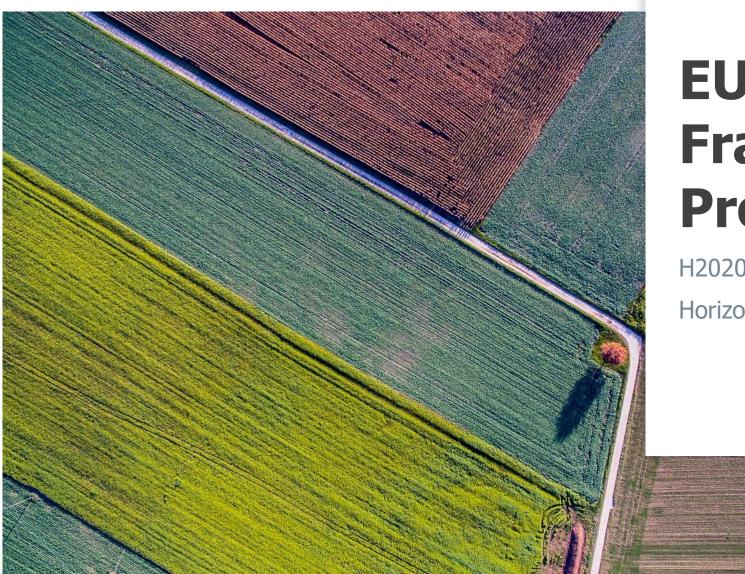
Impact of the two strategies until 2030

Additional impact of plant breeding until 2040



- HFFA Policy recommendations
  - Private decision-making:
    - Plant breeding is an extremely important area of R&D and plant breeders must take responsibility by investing even more into innovation
    - Targets: higher yields but also, e.g., resistances, agronomic traits, orphan crops, etc.
  - Public decision-making:
    - Must encourage and not hinder plant breeders to further invest
    - Strengthen R&D as well as fundamental research
    - Support public awareness raising through interdisciplinary research and evidence-based information campaigns
    - Establish differentiated regulatory framework based on proportionate and non-discriminatory safety considerations for individual techniques and resulting products





#### EU Research Framework Programmes

H2020 Green Deal call

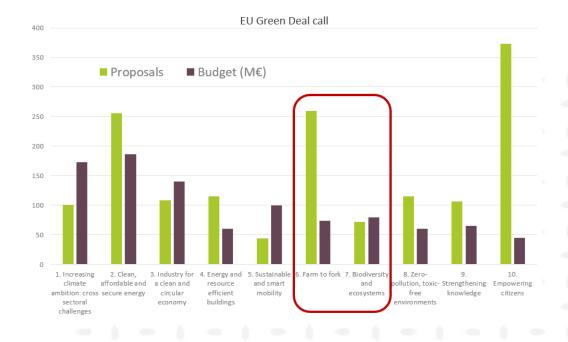
Horizon Europe



#### **Horizon 2020**

- European Green Deal call
  - €1 billion call (the last and biggest call under Horizon 2020)
- Results in the short to medium-term
  - Pilot applications, demonstration projects and innovative products
  - innovation for better governance of the green and digital transition
  - social and value chain innovation
- Structure of the call:
  - Eight thematic areas (call areas 6 and 7: Farm to Fork and Restoring biodiversity and ecosystem services)
  - Two horizontal areas (strengthening knowledge; empowering citizens)







#### **Horizon 2020**

- Farm to Fork:
  - 6 to 12 M€/proposal
  - 1 or 2 proposals per subtopic
  - 6 to 12 proposals in total for the topic
  - Very different levels of competition!
- Biodiversity:
  - 16 to 25 M€/proposal
  - 3 to 5 proposals in total

#### **Call on Farm to Fork Topic Testing and demonstrating systemic innovations for Proposals** sustainable food from farm to fork Subtopic A. Climate neutral farms 39 Subtopic B. Climate neutral food businesses 35 Subtopic C. Reducing dependency - pesticides, fertilisers 70 Subtopic D. Reducing dependency - antimicrobials 15 Subtopic E. Reducing food losses and waste 56 Subtopic F. Shifting to sustainable diets 45 **Total** 260

Call on Biodiversity and ecosystems	
Topic Restoring biodiversity and ecosystem services	Proposals
Biodiversity and ecosystems	72
Tota	ıl 72



#### **Horizon Europe**

#### **Draft Working Program 2021-2022 Horizon Europe:**

- Breeding
  - Root traits, photosynthesis
  - Protein crops and legumes
  - Organics
- Plant health
- Technologies
  - Blockchain
  - Digitalisation
  - Drones, sensors
  - Gene editing





- Biodiversity
- Food chain sustainability
  - Life cycle information
  - Sustainability assessment
  - Labelling
- International cooperation
  - Africa
  - China
- Circular economy and bioeconomy
- Clean environment and zero pollution





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#EmbracingNature







