



**#EmbracingNature**

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# THE EUROPEAN SEED SECTOR: AT THE HEART OF THE AGRI-FOOD CHAIN

A constant stream of innovative quality seeds is essential to contribute to a sustainable agricultural production that fosters food security and healthy nutrition.

The European seed sector plays a key role to meet global challenges: mitigating climate change, feeding a growing world population and supporting resource-efficient farming systems.

**Europe's seed sector is determined to help achieve the European Union's policy objectives of a secure supply of sustainable, healthy, nutritious and high-quality food, and of a greener, circular competitive and climate-neutral economy by 2050.**

**Euroseeds**  
is the voice of  
the **European seed**  
sector



# OUR ASPIRATIONS FOR THE EUROPEAN SEED SECTOR

By embracing the power of nature, Europe's seed sector is committed to delivering on the United Nations Sustainable Development Goals (SDGs) by:



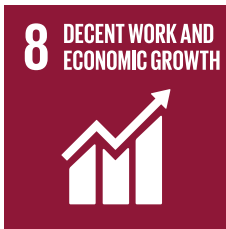
## IMPROVING

the sustainability of food production, contributing to the new EU Farm to Fork strategy;



## MAINTAINING

and promoting Europe's high food quality and standards;



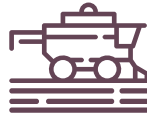
**ENSURING**  
that the European agri-food sector can remain fair and competitive;



**CONTRIBUTING**  
to Europe's climate, environmental and biodiversity goals.



## FOOD SECURITY



### Our aspiration

We believe that Europe's seed sector has a responsibility to, and must play a role in, securing Europe's own food demands and contributing to the world's food supply.

### Our challenge

The demand for food is likely to grow by 50% with the global population rising to almost 10 billion by 2050\*. How can we increase agricultural output without using more land and natural resources?

### Our response

Plant breeding is a major driver to secure the availability of food by increasing and stabilising yields, enhancing shelf-life to reduce food waste, and strengthening resistance to plant diseases, insects and climatic stress, and with that reducing crop loss.

\*Source: FAO

### Drivers of food security



Thanks to plant breeding **WHEAT HARVESTS** have increased by over

**22 ml ton**

in the EU since 2000.

**THAT'S ENOUGH FOR**

**32 bn** LOAVES OF BREAD\*

Find more facts and figures at: [www.euroseeds.eu](http://www.euroseeds.eu)

\*Source: HFFA Research GmbH (2016), The economic, social and environmental value of plant breeding in the European Union, HFFA Research Paper





## FOOD QUALITY AND HEALTH



### Our aspiration

The European seed sector is committed to contributing to ever increasing quality standards of the food we eat, regarding health and nutrition value, as well as taste, flavour and attractiveness.

### Our challenge

Not only do eating habits and consumer preferences evolve over time; the need to promote and develop quality foods, and healthy diets and lifestyles, is also of principal societal importance to fight obesity, allergies, coronary heart disease, diabetes and other chronic illnesses.

### Our response

Research and development in plant breeding are major drivers for the creation of improved plant varieties. They better meet consumer demands and address some of the key challenges we face in our diets.

Breeders have made an enormous contribution to the availability of healthy and nutritious produce, making it available all year around, and with a longer shelf-life.

## Stewards for food quality and health

Plant breeders contribute to a healthier life-style by developing:



Plants with higher nutritional content, like **BROCCOLI WITH INCREASED ANTIOXIDANTS;**

Plants with reduced toxins and allergens like **GLUTEN-FREE WHEAT;**

Wide choice of convenient and **TASTY FOOD ALTERNATIVES** like cauliflower, kale, cabbage, Brussels sprouts, broccoli etc.

More **CONVENIENT SNACK VEGETABLES** and **FRUITS** like seedless watermelons, baby cucumbers, grape tomatoes.



Find more facts and figures at:  
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## SUSTAINABILITY AND MITIGATION OF CLIMATE CHANGE



### Our aspiration

The European seed sector is dedicated to developing robust and resilient varieties, that perform well also under increasingly extreme and fast changing weather conditions.

### Our challenge

In the coming decades, modern agriculture needs to sustainably produce more plant-based products for the wider bio-economy, preserving natural resources and biodiversity under changing climatic conditions. More extreme and varied weather phenomena, together with related new phytosanitary threats and crop management problems, are creating additional challenges to all European crop production.

### Our response

Innovative approaches in plant breeding and seed production give farmers access to the best quality seeds that play a major role in helping them to respond to climate change and the new pest and disease pressures it brings. New plant varieties also contribute to reducing the use of pesticides, fertilisers and other inputs.

Advocates for sustainability and mitigation of climate change

THE **3,4 ml ton** REDUCTION IN CO<sub>2</sub>

emissions achieved through plant breeding over the past 15 years

REPRESENTS A

**33% reduction**

in the CO<sub>2</sub> outputs from EU agriculture\*.

\*Source: HFFA Research GmbH (2016), The economic, social and environmental value of plant breeding in the European Union, HFFA Research Paper

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# BIODIVERSITY AND ENVIRONMENTAL PROTECTION



## Our aspiration

Plant breeders in Europe are committed to maintaining and creating new biodiversity by using existing plant genetic resources to develop new ones. They are also committed to supporting environmental protection, with benefits for farmers, the whole agri-food chain and consumers.

## Our challenge

With agriculture covering approximately half of the EU’s land area, biodiversity and agricultural practices are intimately linked. The underlying challenge is how to increase agricultural production – especially given the need to increase global food supply – while safeguarding our planet’s natural environment and biodiversity.

## Our response

Plant breeding is the science of recombining plant genetics into new varieties with improved stress-tolerance and disease-resistance. Plant breeding can support the reduction of pesticide use and improve the uptake of nutrients, therefore contributing to environmental protection.

Genetic diversity is the basis of plant breeding and conserving this diversity is key for the sector. Plant breeders sustainably use genetic resources and contribute to enhancing genetic diversity of our food crops. In addition, more productive crop varieties help to reduce the land for agricultural production, thus leaving more space for natural habitats that can be used to preserve our biodiversity.

## Guardians and creators of biodiversity

**3.500** NEW VARIETIES

of agricultural and vegetable species come to the EU market **EVERY YEAR\***.

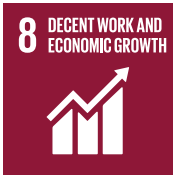
**42.000** DIFFERENT VARIETIES

of agricultural and vegetable species are available to EU farmers **TODAY\***.

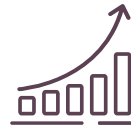
\*Source: EU common catalogues of varieties of agricultural plant and vegetable species

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# JOBS, GROWTH, COMPETITIVENESS



## Our aspiration

The European seed sector is committed to maintaining its world leading role in plant breeding and seed production, by fostering its technological and investment capacities in the latest plant science advances.

## Our challenge

Better, high-quality plant varieties created by plant breeders are the starting point of all food production. Across the EU, science and technology is in the top five skill shortage occupations\*.

To stay competitive, Europe’s plant breeders need to be able to access the latest plant breeding methods, otherwise there will be a drain of competitiveness in the seed sector to other parts of the world where policies and regulations are more enabling.

## Our response

Europe’s seed sector supports the growth and competitiveness of a vibrant agriculture and Europe’s rural economies, contributing to the entire agri-food value chain. We believe that European scientists and breeders should be able to use the latest plant breeding methods, to continue to be among the world leaders in seed production and to foster an economy that works for people and delivers stability and growth.

\*Source: Cedefop European Centre for the Development of Vocational Training

**Creators of  
jobs, growth,  
competitiveness**

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### SEED SECTOR IN THE EU:

<b>EMPLOYMENT:</b> approx. <b>52.000</b>	<b>ANNUAL R&amp;D SPENDING:</b> up to: <b>20%</b> (of the companies' turnover)	<b>R&amp;D STATIONS:</b> <b>750</b>
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### SEED MARKET IN THE EU:

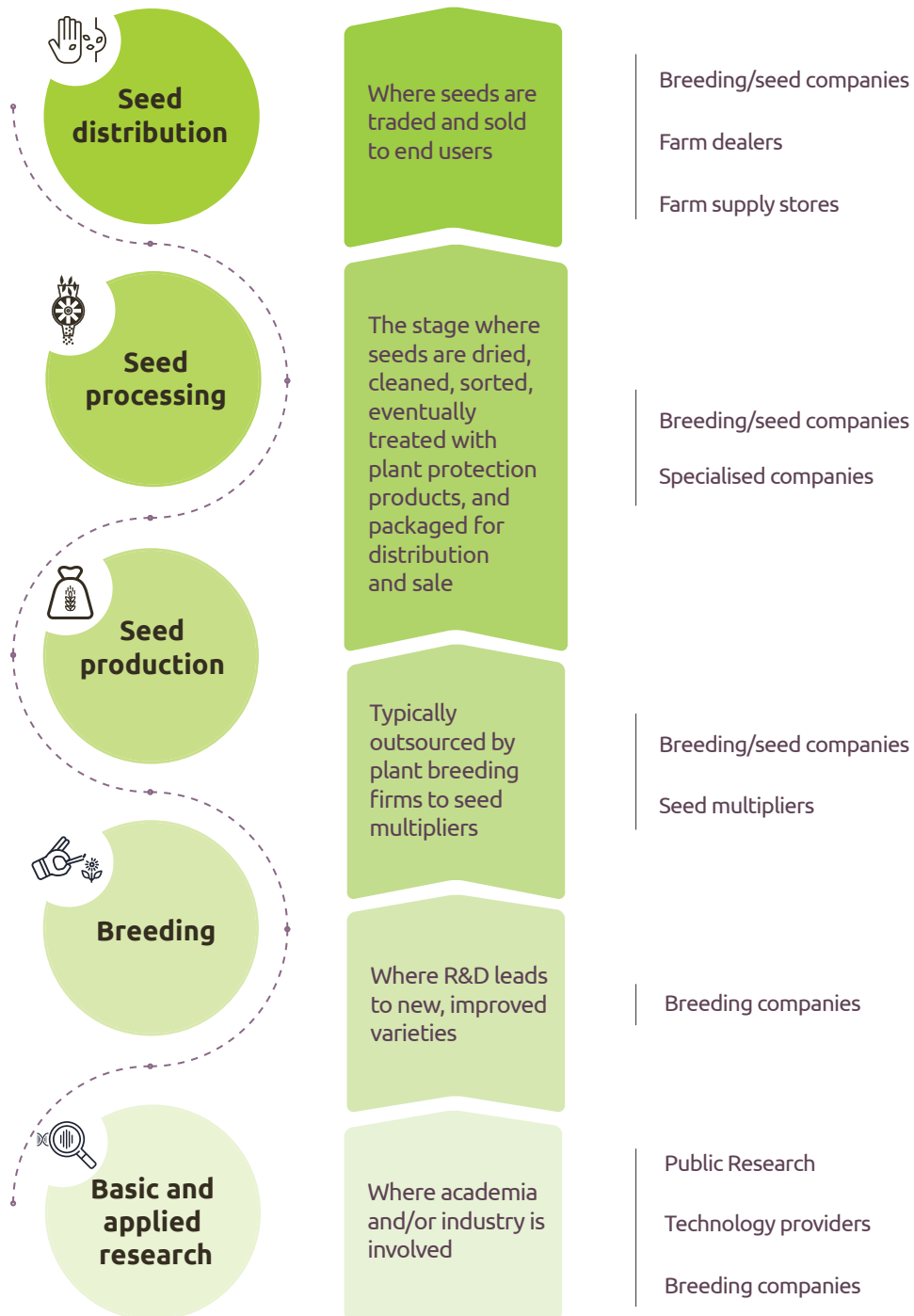
<b>COMMERCIAL SEED MARKET</b> value: <b>€ 10 bn*</b>	<b>FARM GATE</b> value of agricultural products: <b>&gt; € 100 bn</b>	<b>PROCESSED AGRICULTURAL PRODUCTS</b> value: <b>&gt; € 1.000 bn</b>
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\*Source: OECD (2018), Concentration in Seed Markets: Potential Effects and Policy Responses, OECD Publishing, Paris.





# UNDERSTANDING THE SEED VALUE CHAIN



# WHY DO WE NEED PLANT BREEDING?

PLANT BREEDERS PLAY AN IMPORTANT ROLE AS ONE KEY PARTNER PROVIDING SOLUTIONS TO GLOBAL CHALLENGES THAT IMPACT THE EUROPEAN UNION.

Plants with improved animal feed properties

Plants with reduced toxins and allergens

Wide choice of convenient & tasty "green" food alternatives

Plants with higher nutritional content

## HEALTHY AND SAFE FOOD/FEED



PRODUCING Sufficient quality food FOR ALL

## ADAPTATION TO CLIMATE CHANGE

Plants resisting flooding

Plants resisting new pests

Plants resisting drought or heat

## RESOURCE EFFICIENCY AND REDUCED ENVIRONMENTAL IMPACT

Plants with enhanced nutrient use efficiency

Plants resisting pests

Plants with enhanced water use efficiency

Plants with higher yields

## WASTE REDUCTION (PRE-AND POST-HARVEST)

Vegetables with longer shelf-life

Plants with reduced post-harvest losses

Plants resisting pests

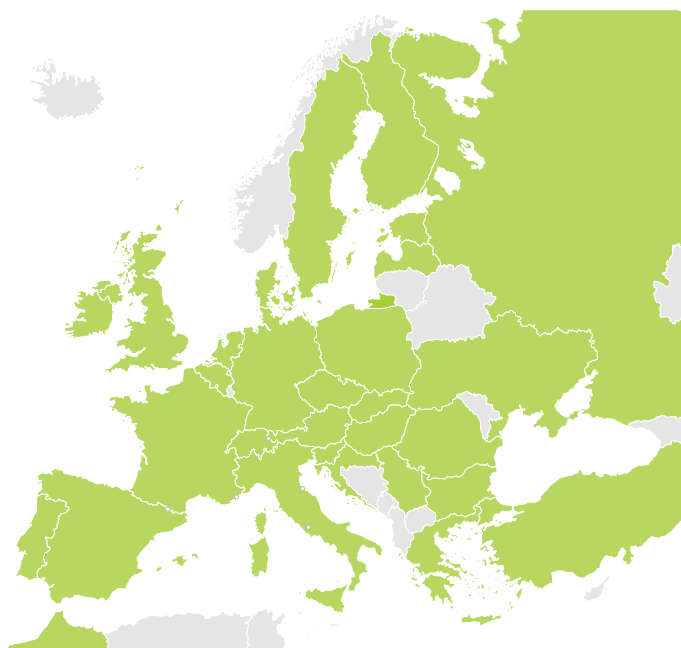
# EUROSEEDS: WHO WE ARE

We represent the interests of our member associations and companies active in research, breeding, production and marketing of seeds of agricultural and vegetable plant species.

**34** **National member associations** from EU Members States and beyond, which in turn represent many thousand seed businesses across Europe.

**67** **Direct company members** from family businesses to multi-nationals, including seed related industries.

**Euroseeds has members also in other parts of the world: e.g. in the USA, Canada etc.**



# EUROSEEDS: WHAT WE DO

On behalf of our members, we engage with all relevant European and international decision makers, stakeholders, media and the public. Our mission is to represent the interests of the sector contributing to:

**Maintaining the EU's global leadership in seed exports** by keeping clear and workable rules and market access conditions;

**Providing a broad range of high-quality seed products for all types of agriculture, including organic**, as a result of innovative and diverse breeding and seed production programmes;

**Fostering future plant breeding innovation in the EU** by assuring investment in plant breeding and protecting inventions and plant breeders' rights.





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