



European Regions for Innovation in  
Agriculture, Food and Forestry

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## PACT

### The role of the horticulture sector in a sustainable EU food system Call for a more plant-based future

The European horticultural sector<sup>1</sup> provides innovative solutions needed for healthy societies across the world. Food horticulture supplies fruit and vegetables needed to sustain a healthy diet, therefore contributing to the prevention of diseases such as obesity, cardiovascular diseases, and malnutrition caused by an unbalanced diet. In addition, horticulture contributes to ensuring EU food security. Ornamental horticulture supplies plants, flowers, bulbs, and trees for a sustainable and green living environment. This contributes to healthier ecosystems and to people's wellbeing, for example by improving air quality, capturing CO<sub>2</sub>, contributing to water drainage, and reducing heat stress in urban areas.

We are convinced that the high-quality and extremely efficient horticultural sector can play a leading role in achieving Europe's sustainability goals. The sector largely contributes to achieving the objectives set out by the European Green Deal and its strategies, such as the Farm to Fork Strategy, the EU's biodiversity strategy for 2030 and the Circular Economy Action Plan.

The ERIAFF working group on *plants* has been striving to show the assets of the horticulture sector at the European level and to enhance the collaboration between European regions since 2020. We believe that the potential and importance of the horticulture sector are not yet sufficiently recognized in the Green Deal strategies. Therefore, we work together on raising awareness.

Our regions are facing similar challenges and we look for support and opportunities at the European level. With this pact we highlight the **five key issues** for the horticulture sector and specify the focus of our regions in the coming years. These issues are endorsed by the member regions of the Plants working group and will be reflected throughout the entire ERIAFF network.

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<sup>1</sup> **The horticultural cluster is understood to mean:**

All plant-based branches of the horticultural complex (ornamental horticulture, fruit and vegetable production and its propagation materials) and the companies involved in processing, supply, trade, and distribution. Horticulture is a broad production sector with sub-sectors ranging from vegetables, fruit, mushrooms, and trees, to flowers and bulbs. The propagation materials sector includes seed-potatoes, young plants, and seeds.



## 1. Climate neutrality

EU agriculture and horticulture supply chains play a crucial role in the fight against climate change. However, the horticulture sector will also face great challenges linked to the unavoidable effects of climate change. Some risks might be solved by practical solutions, yet others will imply a change of practices and the need for more support. Investing more in adaptation solutions is thus essential for the long-term sustainability of the sector, and the need for more (funding) support on this must be emphasized.

On the adaptation side, efficient and sustainable water management is one of the crucial topics. Controlled deficit irrigation techniques for example contribute to crop resilience. When water supply is reduced, the stomata of the plants are reduced and absorb less CO<sub>2</sub>, as we prepare the plants for temperature increase.

With regards to mitigation, the role of the horticulture sector on carbon capture has notably been recognised in various European initiatives, such as the recent communication on “Sustainable carbon cycles” and in the Soil Strategy for 2030.

Horticulture is a sector in which the impacts of climate change will be deeply felt: developing technological and nature-based solutions to adapt to the unavoidable impacts remains a priority. A good example are sustainable greenhouses, these use for example geothermal energy or residual heat from industry for heating and bring in captured CO<sub>2</sub> from industrial sites.

The working group will actively focus on European opportunities (e.g. projects) that could arise on the topic of climate change mitigation and adaptation.

## 2. Circular production

Circular production is the ultimate sustainable system. We argue that all agroecological and high-tech methods that contribute to sustainable and circular production should be encouraged and eligible for incentives, including financial incentives. That is why European policies, such as Farm to Fork, should have a broader focus than organic farming. We are convinced that organic farming is a means to achieve sustainability, but not an end in itself.

We identify three challenges in the horticultural sector when it comes to circular production:

- a) Soil and water management:  
e.g. Orderly water management improves the production conditions and quality of soil and crops promoting the more efficient use of resources and shifting the paradigm from the green economy to the blue economy.
- b) Resource optimization:  
e.g. The use of substrate helps to improve harvests in closed growing systems. It allows for less input of among others fertiliser and water. Substrate production can be made more circular, for example by replacing peat in organic substrate with renewable materials.
- c) Waste management:



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e.g. Reducing the use of single-used plastics and focusing on circular-, biobased- and biodegradable packaging and production is key. Furthermore a single market for waste with uniform standards is necessary, since the sector transports its products all over Europe.

The constraints are increasing for the horticulture sector when it comes to these three topics. Finding sustainable and circular alternatives to plastics and developing circular technologies in water management are objectives shared by the sector in our regions. We also call for support at the European level for these transitions, for instance with funding tools or with the creation of homogenous policy for waste and circular soil management.

### **3. High-tech production**

Smart and intensive horticultural production on a small scale is very sustainable. High-tech horticulture has the ability to achieve the same yield from a smaller area through smart and efficient solutions. Therefore, resource- and cost-efficient methods of irrigation should be established, which could be part of a sustainable intensification of crop production.

The use of smart, digital tools will be key to the sustainable development of the sector in the future, and should be supported at the European level through programmes such as Horizon Europe, Digital Europe but also the Cohesion policy and the CAP. We call for more data valorisation and the use of Artificial Intelligence in greenhouses as well as in open air. Innovation in precision farming should be encouraged.

We believe that European standards for GPS-use in agriculture and standards to ensure the interoperability between systems are essential. The working group propose the importance of sharing and open data.

### **4. Smart logistics**

We call for the promotion of smart supply chains and more sustainable transport and logistics by focusing on multimodal transport. Minimal waste and minimal food waste are only possible with a high-quality and efficient fresh produce logistics system. The optimization of transport, including possibilities for exchanging data logistics between operators, is key.

Fresh produce logistics from horticulture is already quite sustainable, the majority of production is unprocessed and sold to European customers at a relatively short distance. We advocate smart logistics, and not just short supply chains, since regional specialization in production also has numerous sustainability benefits (e.g. temperature differences, soil characteristics).

### **5. Resilient crops**

To reach the objective of reducing the use and risk of chemical crop protection agents and fertilizers, it is vital to use a systematic circular approach. Good examples are integrated pest management (IPM), innovative technological cultivation practices, and innovative and circular greenhouse horticulture.



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We want to draw attention to the following conditions:

- authorization of new breeding techniques to make crops resilient (linked to climate adaptation);
- fostering agroecological and agroforestry practices;
- investments in the transition processes and R&D for more sustainable cultivation;
- accelerated authorization of green, low-risk agents and extension of authorisation of existing highly necessary plant protection products as long as there is no alternative low risk agent available especially for fruit- and vegetable production;
- more R&I projects to develop sustainable and/or biobased alternatives to fertilisers and pesticides;
- the availability of precision tools for smaller crop groups in horticulture.

With signing this PACT, the following ERIAFF regions express their ambitions to work together and emphasize the importance of these five key issues on a European level.



Representation of the  
Free State of Thuringia  
to the European Union



REGIONE  
TOSCANA



DEPARTMENT  
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