Brussels, 17 April 2025

Agroecology Europe's contribution to the Strategy for European life sciences

Agroecology Europe (AEEU) would like to thank the European Commission for having been allowed to contribute to the public consultation on the upcoming Strategy for European life sciences

First, as Agroecology Europe deals with agroecology, we fully understand and recognize the importance of life sciences for the future of Europe. Sciences related to life, such as agronomy, ecology, biodiversity studies, climate related sciences, soil science, etc. are cornerstones for a sustainable and resilient Europe. As a basis, agroecology means farming WITH nature[1]. For Agroecology Europe, it means that we must take full advantage of ecosystem services and other nature dynamics to ensure resilience, sustainability and prosperity for Europe. Life science and technologies play a major role in understanding those dynamics.

Nevertheless, life sciences imply studying and developing solutions based on living elements or elements that are part of ecosystems and nature dynamics. As those dynamics are complex and have no boundaries, **Agroecology Europe first wants to recall the application of the precautionary principle about all current and future technologies related to life sciences** (such as biotechnology and synthetic biology, genomic technology, bioengineering, geoengineering, ...).

Those are basic premises before applying any technologies from life sciences.

As explained, Agroecology Europe considers life sciences as basis for agroecology. Agroecological practices are knowledge-intensive, especially, in scientific domains related to life science[2]. **We call the strategy to integrate agroecology as one of the life science domains**. We then call on the EU to strengthen research related to agroecology.

Secondly, Agroecology Europe has identified elements in the public consultation to reflect on:

Even though the document states that "*Recent high-level expert reports (Letta, Draghi, Heitor, Niinistö) provided recommendations to the EU to strengthen its single market, economic competitiveness, global leadership, crisis preparedness, and resilience to geopolitical shocks. Life sciences and their applications offer many opportunities to address these recommendations*" and that the public consultation identifies a number of 'Problem the initiative aims to tackle', for Agroecology Europe, it seems to set aside that the European Commission on 25 March released a EU Preparedness Strategy in which it among other is mentioned that Europe need to establish 'Resilience of vital societal functions' through the following actions[3]:

- embed preparedness by design into EU policies and actions
- adopt minimum preparedness requirements
- revise the Union Civil Protection Mechanism
- propose an EU stockpiling strategy
- propose a Climate Adaptation Plan
- ensure supply of water and other critical natural resources

[1] HLPE (2019). *Agroecology and other innovative approaches for sustainable agriculture and food systems that enhance food seucrity and nutrition*. Rome: UN Committee on World Food Security.
[2] Altieri, M. (2018). *Agroecology – The Science of Sustainable Agriculture, second edition*. Boca Raton: CRC Press.
[3] Preparedness - European Commission

Agroecology Europe recalls that the preparedness strategy recognizes that '*the EU is more and more exposed to the consequences of climate change, continued environmental degradation and the risk of further pandemics. Europe is the continent that is heating the fastest. It has experienced devastating natural disasters, from floods to droughts and forest fires, coastal erosions, heat and cold waves and storms. If not addressed by improving the structural capacity of our societies to manage risks the human, economic and social costs of climate change will only increase in the years to come (...)*[4]'. In that sense, **Agroecology Europe firmly advises that the Strategy for European Life Science should have as main objective to improve EU resilience, as it's the best way to cope with preparedness, competitiveness, and strengthening the Single Market**. **Therefore, we call on the Strategy to strongly consider agroecology as a domain of expertise to investigate as it's about improving the resilience and the sustainability of food systems, which by, ripple effect, can improve the preparedness of the EU** (by improving its capacity to absorb chocks (e.g. disruptions on food systems' value chains), the competitiveness of the EU (e.g. by being less dependent on some external stakeholders, and by producing high-value product, and strengthening the Single Market (e.g. by developing more local and territorial value chains for EU products)).

Thirdly, the public consultation identifies a series of challenges and barriers:

Limited market uptake and commercialisation: Agroecology Europe acknowledges that there is '*insufficient translation of research results into products and services',* especially concerning agroecology uptake. Agroecology is one of the most prominent scientific domains related to agriculture and life science[5], but few practices and agroecology alternatives manage to be implemented by farmers and other practitioners[6]. **The EU should integrate preparedness into the Strategy on Life Science by accompanying and developing tailored mechanisms to bring research results to the ones who need them**. We can cite for instance the uptake and implementation of agroforestry practices[7], the integration of crops in farm system (intercropping, ...), the development of mixed farming practices and approaches, ...

[4] EU Commission. (2025). *Joint communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on the European Preparedness Union Strategy.* Brussels: Author.

[5] Wezel, A., & Soldat, V. (2009). *A quantitative and qualitative historical analysis of the scientific discipline of agroecology*. International Journal of Agricultural Sustainability, 7(1), 3-18: https://doi.org/10.3763/ijas.2009.0400
Note that this publication is 16 years old, and since then, the number of publications on agroecology has continued to grow.

[6] Wezel, A., Goris, M., Bruil, J., Felix, G.F., Peeters, A., Barberi, P., Bellon, S., & Migliorini, P. (2018). *Challenges and Action Points to Amplify Agroecology in Europe*. Sustainability, 2018, 10, 1598: doi:10.3390/su10051598

[7] Dauby, V., Venn, R., Wright, J., Schmutz, U., Migliorini, P. (2024). Transforming European Food Systems with Agroforestry. D6.4 of the AGROMIX project funded under the Grant Agreement 862993 of the H2020 EU Programme.

Regulatory complex: The public consultation states that "*The existing regulatory framework governing the development and use of life sciences products and technologies – for example for human or animal health, food and agriculture – is complex and can include multiple pieces of EU and national legislation. In some instances, these legal requirements may be overlapping, time-consuming and costly. This represents a challenge, in particular for companies entering the field, making it difficult for innovators and investors to take and manage entrepreneurial risks".* This quote poses important questions and a lot of concerns for Agroecology Europe as it follows the current trend of 'simplification' that could lead to deregulation. But it's fundamental to ensure that any life science product that would enter any market serves the interests of the EU public, the sustainability and the resilience of the EU, and does not put in jeopardy the future of future generations. Therefore, we consider this paragraph as misguiding, and we are suggesting getting rid of it, or adapting it to well stressed the role of legislation processes in protecting EU citizens and the EU environment. On the contrary, **Agroecology Europe supports the strengthening of legislation that would ensure that any bioproducts serve the public interests expressed above and does not put in jeopardy the wellbeing of future generations.**

Access to finance: Agroecology Europe shares this concern. Conclusions of research projects often state that financial support is needed for the uptake and development of research results. **Agroecology Europe calls for agroecology to be considered as a key life science domain, and therefore calls for better, stronger and tailored finance mechanisms (e.g. transition funds, green insurance to alleviate the risk appreciation of farmers, ...)[8] to help the development of agroecology, and to support farmers and other practitioners in testing and integrating agroecological practices.**

Evolving skills is needed: Agroecology is knowledge-intensive; thus, Agroecology Europe calls on the EU to support transdisciplinary learning processes where various knowledges (e.g farmer knowledge, indigenous knowledge, scientific knowledge) are exchanged[9]. As for the '*speed up the safe development, deployment and uptake of life sciences-based innovation',* **we call for the integration and strengthening of education and learning approaches for agroecology, and especially for farmers and other food system stakeholders**. The strategy could improve the connection, networking and relation building amongst research institutions and practitioners. Agroecology Europe supports the creation and development of agroecological advisory services.

Fourth, the public consultation highlights that "*This initiative will contribute to the sustainable development goals (SDGs), in particular SDG 9 (Industry, innovation and infrastructure), as well as other SDGs to which life sciences are relevant, including SDG 2 (Zero hunger), SDG 3 (Good health and well-being for all), SDG 12 (Responsible consumption and production), SDG 13 (Climate action), SDG14 (Life below water) and SDG 15 (Life on land*)". By including the concept of preparedness into the strategy of Life Science, the EU would be able to integrate other SDGs. **If the initiative integrates**

[8] Agroecology Europe participated in the drafting of the Strategic Dialogue on the Future of EU Agriculture. The text highlights options for financing the transition towards a sustainable EU food system. EU Commission. (2024). *Strategic Dialogue on the Future of EU Agriculture*. Brussels: Author.

[9] Agroecology Coalition. (2024). *Co-creation of knowledge, a fundamental principle of agroecology*. Retrieved from Co-creation of knowledge, a fundamental principle of agroecology | Agroecology Coalition

agroecology, it could expand to all SDGs. As the FAO demonstrated[10], agroecology has a positive impact on all the SDGs.

To conclude, Agroecology Europe welcomes this Strategy for European life sciences. Agroecology Europe strongly advocates for this strategy to consider and integrate agroecology as a science to be supported, as it coud deliver on various European objectives (preparedness, competitiveness, resilience and sustainability).

[10] Agroecology and the Sustainable Development Goals | Agroecology Knowledge Hub | Food and Agriculture Organization of the United Nations