

The background of the page is a solid green color with a repeating pattern of small, light green icons representing various food items such as carrots, chickens, apples, eggs, grapes, turkey legs, fish, bread, cheese, mushrooms, and other agricultural products. A vertical dotted line runs down the left side of the page, starting from the top and ending at a white semi-circle at the bottom.

## Position paper on agroecology

Organic and agroecology: working to transform our food system

December 2019

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# 1 Introduction and context

## 1.1 The need to transform our food and farming system

### 1.1.1 Sustainability challenges

The current food and farming systems require a fundamental transformation in light of the increasingly worrying environmental, health and socio-economic challenges that have emerged (IPES Food, 2019). Industrial agriculture is largely responsible for the depletion of natural resources. In terms of environmental impacts, more than 11% of the EU landscape is affected by moderate to high soil erosion. Agriculture can also impact in different ways the adequate chemical and good quantitative status of groundwater and surface waters. Water quality may be negatively affected by the presence of pesticide residues, nutrients from fertilisers, or sediments from soil erosion. On average 44 % of total water abstraction in Europe is used for agriculture. The rise in intensive agriculture, and associated land-use change, is also a major driver of biodiversity loss. Recent data of EU Biodiversity indicates that 60% of species and 77% of habitats assessed are in an unfavourable condition of conservation, where intensive farming is an important factor leading to biodiversity loss while the decline of pollinators is reducing yields (Aubert et al. 2019). In addition to this, the intensive use of resources and external synthetic inputs makes agriculture a major contributor to GHG emissions (IPES Food, 2019). It is estimated that the agricultural and food sectors, ranging from fertilizer manufacture to food packaging, are responsible for up to one-third of all human-caused greenhouse-gas emissions globally (Gilbert, 2012). These impacts are made worse by the fact that food loss and food waste reach about 20% of the food produced in the EU, which go hand in hand with the waste of resources such as land, water, and nutrients used to produce this wasted food (IPES Food, 2019). The intensive use of external synthetic inputs in agriculture is also responsible for pesticide concentrations in groundwater, exposure to endocrine disruptors, the increase of antimicrobial resistance, all of which have harmful effects on health. In terms of socio-economic impacts, 20% of farms receive 80% of the subsidies under the Common Agricultural Policy (CAP). This reveals a bias towards the support and extension of large farms at the expense of smaller farms. Indeed, between 2003 and 2013, more than 25% of farms have disappeared in the EU (IPES-Food, 2019). Today, one farm ceases to exist every 3 minutes and only 11% of European farms are run by farmers younger than 40 (Eurostat, 2018). In terms of health-related impacts, one of the major crises of this century is micro-nutrient deficiency including overweight and obesity. Indeed, as a result of today's unhealthy diet and a sedentary lifestyle, more than 50% of the EU population is overweight and more than 20% is obese. The abundance of unhealthy food with little nutritional benefits has resulted in nutritional poverty and "hidden" hunger, i.e. consumers may have enough to eat in terms of calories, but they do not meet their needs in terms of nutrition (Benton et al., 2019; Drewnowski, 2005). This modern way of living is responsible for 49% of the burden of cardiovascular disease; number one cause of death in the EU (IPES Food, 2019).

Intensively using external synthetic inputs is not a viable solution for addressing the current environmental, health and socio-economic issues that are inherent to the food system (Altieri, 2009; Barberi et al, 2017; FAO, 2018a; Petersen et al., 2018). Indeed, given the clear link between most Sustainable Development Goals (SDGs) with agriculture and food, a shift in the way we think about agriculture must occur in order to reach the 17 SDGs in a timely manner. A transformation of the current food system is especially necessary to reach no poverty (SDG 1), zero hunger (SDG 2), responsible consumption and production (SDG 12), climate action (SDG 13) and life on land (SDG 15). There is more and more consensus that agroecological and organic practices can contribute positively to achieving the SDGs (Migliorini et al., 2017; NOBL, 2015; Sanders et al., 2019; Eyhorn et al., 2019).

## 1.2 Short history and state of play of agroecology and organic farming

### 1.2.1 Agroecology

In the past years, the term 'agroecology' has become increasingly trendy although there is currently no clear, undisputed agreement regarding the definition of the term (Calame, 2016). Broadly speaking, the word "agroecology" stems from a fusion between agronomy and ecology (Moudry Jr et al, 2018). Agroecology therefore started as a science, seen as a subset of ecology or biology given that this discipline addresses the relations and interactions between organisms and their environment, including other organisms (e.g. humans) in ecosystems managed for agricultural purposes.

Agroecology inspires an increasing number of people, but it is a term that means different things to different people (Hilbeck et al. 2015). The perception and understanding of agroecology are also different from country to country (Moudry Jr et al, 2018). Altieri defined agroecology in 1983 as the application of ecological

principles to agriculture, with a central role for farmers and farmers knowledge. Some years later Wezel et al. (2009) and Gliessmann (2011) stated that agroecology is not only a means of producing food or a scientific discipline, but also a social movement that links producers to consumers, and criticizes the effects of industrialization and the economic framework of the globalized food market. In 2009, the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) documented the need for the agroecological transformation of agriculture, food production and consumption and positioned the concept of agroecology in the global food policy debate. Hilbeck et al (2015) write that *“agroecology is neither a defined system of production nor a production technique. It is a set of principles and practices intended to enhance the sustainability of a farming system, and it is a movement that seeks a new way of food production. Increasingly, agroecology is a science looking at ways of transforming the existing food system, and of further developing agriculture and adapting it to the changing environment – an approach which is vital for food security”*.

**The concept of agroecology has therefore evolved through the years and scholars currently agree that the term incorporates a threefold dimension:** it starts as a scientific discipline (from scientists), it has also evolved into a set of agricultural practices (from farmers), as well as a movement that incorporates social justice, food sovereignty and the preservation of cultural identities (from society) (Barberi et al., 2017; Migliorini et al., 2017; NOBL, 2015; Wezel et al., 2018). In most definitions agroecology is seen as a transformative approach, which should not be confused with concepts such as “climate smart agriculture” or “integrated farming”, which merely seek to lessen some of the negative environmental impacts of industrial farming systems (e.g. see Liebig et al., 2017).

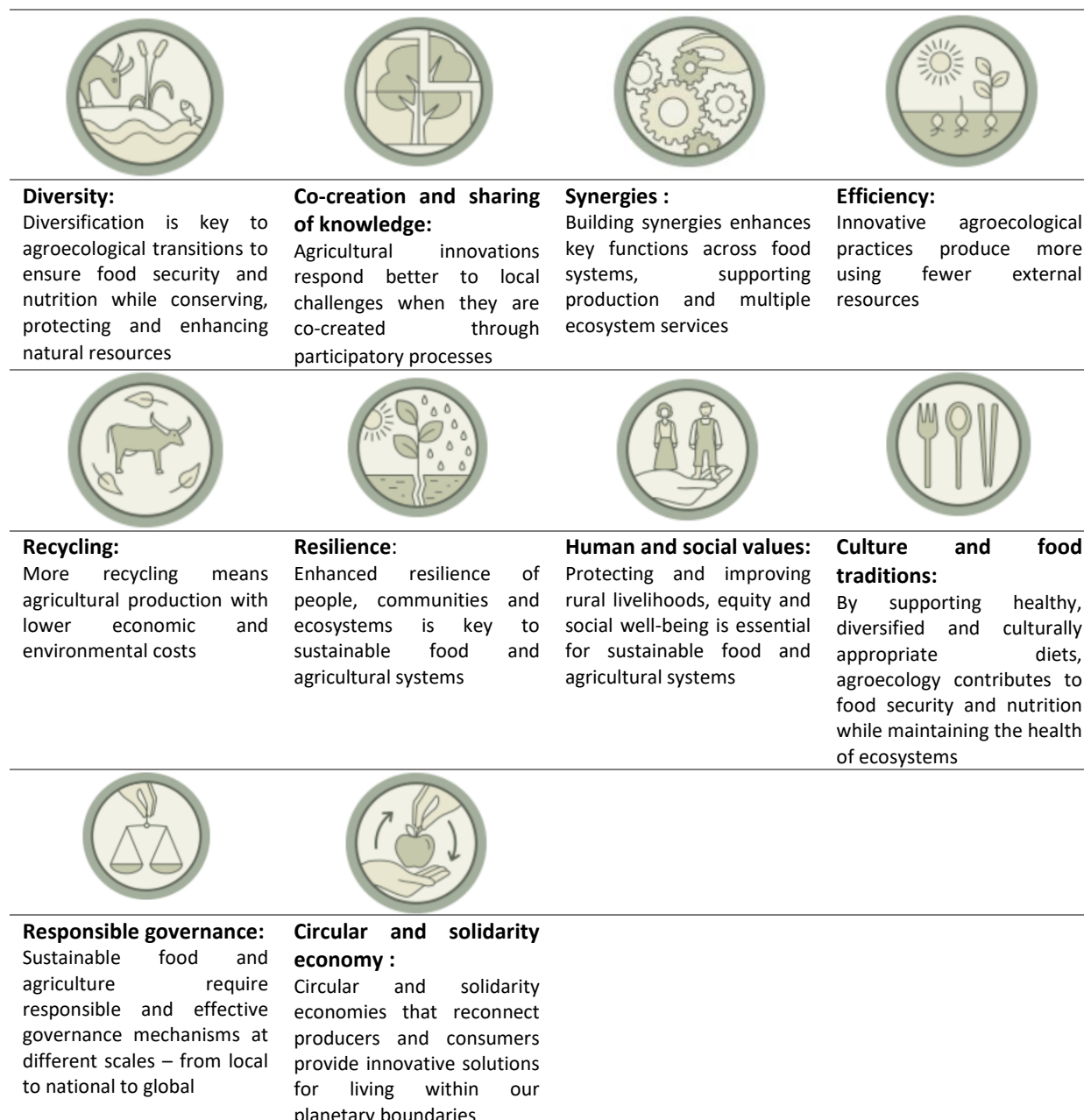
Agroecology Europe, the European Association for Agroecology envisions that agroecology *“(…) encompasses the whole food system from the soil to the organization of human societies. It is value-laden and based on core principles. As a science, it gives priority to action research, holistic and participatory approaches, and transdisciplinarity that is inclusive of different knowledge systems. As a practice, it is based on sustainable use of local renewable resources, local farmers’ knowledge and priorities, wise use of biodiversity to provide ecosystem services and resilience, and solutions that provide multiple benefits (environmental, economic, social) from local to global. As a movement, it defends smallholders and family farming, farmers and rural communities, food sovereignty, local and short food supply chains, diversity of indigenous seeds and breeds, healthy and quality food (...)”*. In its initiative to scale up agroecology published in 2018, the FAO stipulates that *“agroecology integrates ecological and social concepts in the design and management of agricultural production and food systems, while optimizing interactions between plants, animals, humans and the environment”*.

As the term has become more recognised, “agroecology” is increasingly being used in political documents at UN, EU and national level. The food and agriculture organisation (FAO) views agroecology as a pathway to achieving the SDGs<sup>1</sup>. The FAO more specifically promotes four key messages: (1) agroecology can contribute to accelerating the achievement of the 2030 agenda, (2) agroecology can help transition to sustainable food systems, (3) agroecology win-win for people, planet and livelihoods, and (4) agroecology is a living concept that can achieve its full potential through innovation and cooperation.

More specifically, the 10 agroecological elements of agroecology, as emanated from the FAO regional seminars of agroecology, can be seen in Figure 1 (FAO, 2019; Migliorini et al., 2017).

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<sup>1</sup> FAO defines agroecology as *“the science and practice of applying ecological concepts and principles to the study, design and management of the ecological interactions within agricultural systems (e.g. relations between and among biotic and abiotic elements). This whole-systems approach to agriculture and food systems development is based on a wide variety of technologies, practices and innovations including local and traditional knowledge as well as modern science”* (FAO, 2009).



*Figure 1: The 10 elements of agroecology; adapted from FAO, 2019*

At EU level, agroecology is seen as something that designs sustainable agroecosystems and where ecosystem services functional to crop growth (e.g. soil quality, natural pest control) are maximised through appropriate resource management and farming practices. Although the term is being used, there is no EU official definition or set of rules.

In 2012, France launched the “agroecology project” which aimed to give an ambitious perspective to the French agricultural system by starting the transition to new and efficient production systems in all their dimensions: economic, environmental, and social. One of the 12 goals of this project was to encourage and support organic agriculture. As such, the French government fully sees organic as a tool to achieve agroecological practices.

### 1.2.2 Organic farming

Organic farming saw the light at the beginning of the 20<sup>th</sup>. The concept of ‘organic farming’ is rooted in the social movements of the early 20th century, mainly in the German and English-speaking countries. **It combines**

**the visions of social reform movements and pioneer farmers who refused to use artificial fertilizers and synthetic pesticides, but were interested instead in concepts of soil fertility, nutrient cycling involving livestock and composts, food quality, and health** (Hilbeck et al. 2015). It was born for agronomic and sanitary reasons and as a refusal of industrial agriculture (Calame, 2016), and developed by farmers that had deep concerns about the impact of conventional farming on the agroecosystem and therefore focused on improving soil health by using practices such as crop rotations and green manure which were of course not labelled as “agroecological” practices at the time. Decades later, IFOAM Organics International codified the idea of organic agriculture into the four core principles of health, ecology, fairness, and care (see Table 1). The following definition reflects these important principles: *“Organic Agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.”*

*Table 1: Organic Agriculture (OA) principles of health, ecology, fairness and care (IFOAM Organics International)*

Principle of HEALTH	Principle of ECOLOGY	Principle of FAIRNESS	Principle of CARE
OA should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.	OA should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.	OA should build on relationships that ensure fairness regarding the common environment and life opportunities.	OA should be managed in a precautionary and responsible manner to protect the health and well being of current and future generations and the environment.

In order to describe the different phases of the development of organic farming, IFOAM – Organics International talks about Organic 1.0 (pioneering organic agriculture), Organic 2.0 (codification of organic practices) and Organic 3.0 (contributing to sustainable development). Organic 2.0 resulted in Europe in the creation of EU-wide rules defining organic practices and the rules products have to comply with to be labelled as organic. A new organic regulation, [Regulation 2018/848](#), will come into force in 2021 and sees organic production as *“an overall system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards in line with the demand of a growing number of consumers for products produced using natural substances and processes”*. While the organic principles arose from the organic movement, the current organic legislation is for the most part a product of legislators, not of the organic movement per se. However, organic legislation has contributed in the past 40 years to fight fraud by building up certification and control systems under legally binding rules.

Organic legislative frameworks in different parts of the world are approaches to frame the organic principles as well as possible in binding legislation to prevent the abuse of the term “organic” and therewith avoid consumer deception. Due to the process of law-making, organic legislation is a product of the legislators in interaction with different stakeholders, not of the organic movement alone. Be as it may, as a result, organic is the only agroecological farming approach today with a legally ensured guarantee system.

Organic 3.0 aims at “bringing organic out of its current niche into the mainstream and positioning organic systems as part of the multiple solutions needed to solve the tremendous challenges faced by our planet and our species”.

### 1.2.3 Organic farming: beyond the organic regulation

It is important to keep in mind that, among all the systems and techniques that could qualify as “agroecology” according to the scientific literature, only products produced by following organic practices are subject to worldwide regulation and controls, with laws and private label guidelines (Hilbeck et al. 2015). This situation raises advantages and challenges. **The four principles of organic agriculture should serve to further develop organic standards worldwide and are deeply rooted in the organic movement, but they go far beyond the current legislations on organic farming**, e.g. in the EU or the USA (Hilbeck et al. 2015). Policymakers focus on aspects that are easy to regulate and control, such as lists of allowed inputs. As such, regulations do not reflect the wealth and breadth of practices that are applied by farmers on the ground, and that have to be adapted to local climatic and environmental conditions and to specific farms. Organic farming practices are diverse, and cannot all be easily defined and harmonised through a top-down approach inherent to regulation and

policymaking. Most organic farmers design their farming systems in ways that go beyond what is described and prescribed in regulations. Organic farming is also knowledge intensive (as opposed to input intensive) and farming organically is a constant learning process. Most organic farmers strive to constantly improve their farming systems to move towards closed systems and independence from external inputs.

At the same time, a greater number of (new) actors are entering the organic sector, and some of them may aim to solely fulfil the legal requirements in order to be certified organic, i.e. substituting inputs without redesigning operations as a whole. With concepts such as “conventionalisation” (Darnhofer et al., 2010; Hilbeck et al., 2015), some researchers warn of the risk that organic agriculture could become more and more standardized, potentially distancing itself from its principles and losing its diversity (Niggli, 2015). To what extent this trend towards “conventionalisation” is a reality remains to be verified and measured on the ground, but this concept has the merit of raising the question regarding which aspects of organic farming should be further regulated or not, and which would be the best means (beyond the regulation) of ensuring that organic farming is a constant process of improvement of farming systems towards the reduction of external inputs.

Therefore, the spirit and impulses coming from the agroecology discussion are an asset to the organic movement, as they bring new genuine interest in to develop sustainable farming practices beyond just following regulations, in addition to the many organic farmers who anyhow work according to their conviction of applying organic principles on the ground and go far beyond legal organic standards in their daily practice. The main focus of the EU organic regulation is to explicitly allow certain farm inputs from natural origin and *de facto* limit synthetic chemical inputs. The EU organic regulation *inter alia* stipulates provisions which uphold animal health and animal welfare, two elements that are deeply rooted in the history of organic farming. The EU organic regulation also includes provisions on how to manage beekeeping and aquaculture activities in a sustainable way, as well as focusing on processing and maintaining the integrity of the organic characteristics along the supply chain. In addition to the EU organic regulation, IFOAM principles are even broader and paint a holistic vision of sustainable agriculture, showing that organic is not limited to input substitution nor to the EU organic regulation. Examples of the organic sector applying practices that go beyond the EU organic regulation are infinite. Specifically, criticisms directed towards the organic sector include that organic does not take social and environmental impacts properly and holistically into account. However, although not thoroughly mentioned in the EU organic regulation, these concepts are present in the organic movement (Bellon, 2016). In this context it is worth mentioning that social and environmental provisions are already set under other pieces of EU legislation and that the EU organic regulation cannot be a panacea for all items directly and indirectly linked to organic. Also, the EU organic regulation provides a legislative basis covering the whole supply chain in the EU and, in addition to it, some Member States have complemented it by national regulations, and the organic sector has complemented it in many countries with private standards, that practically add agroecological perspectives.

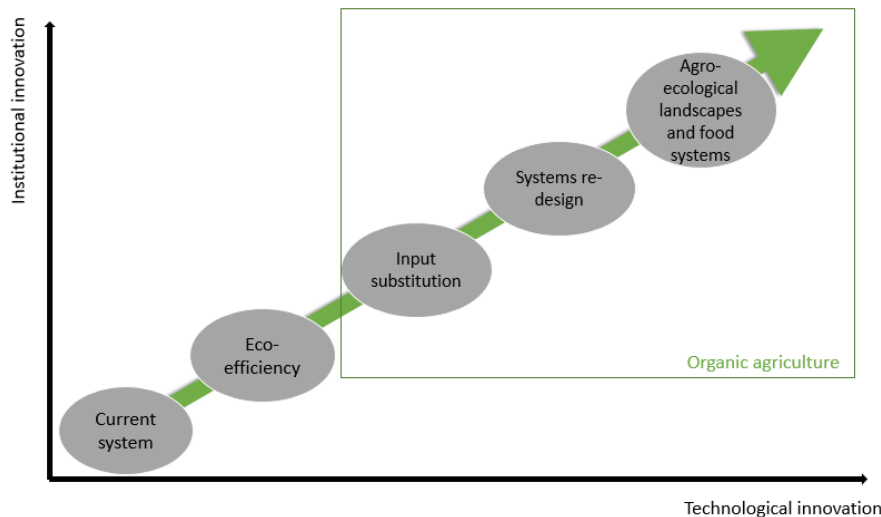
Although the EU organic regulation includes few provisions concerning biodiversity and climate change and practically no provisions regarding social justice and fair trade, the same cannot be said for private organic standards such as that of BioSuisse (Switzerland) or Biogarantie (Belgium). Indeed, private standards go beyond the regulation in many areas ensuring that negative environmental and social impacts are mitigated. For instance, the private standard Soil Association foresees that where land was cleared or otherwise converted to agriculture after January 2007 without a prior High Conservation Values<sup>2</sup> assessment, this land cannot be used for organic production except where evidence is provided that natural ecosystems were not destroyed. In the standards of biodynamic farming of Demeter International biodiversity reserve must account for 10% of the total farm area.

Another example is the Leading Organic Alliance (LOA), an association composed of some of the private organic standards in Europe, that is currently piloting their new common standard on social accountability, which foresees provisions that promote social justice and fair trade.

Figure 2 below is a visual representation of organic beyond the EU regulation. *Eco-efficiency* refers to the optimization of conventional practices without reconfiguring the whole system. The figure shows that organic agriculture starts from a systemic perspective which translates into substances that can / cannot be used in the organic regulation (*input substitution*), and encompasses *system re-design*, i.e. making agriculture more compatible with natural processes and decoupling it from fossil fuel energy, and *agro-ecological landscapes and food systems*, i.e. relying on biodiversity and natural processes.

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<sup>2</sup> High Conservation Values are areas of forest or other vegetation types that have high importance for social and/or environmental reasons



Source: adapted from [Tittone, 2014](#) and from [Barberi et al, 2017](#)

**Figure 2:** Development of agro-food models and role of organic agriculture

## 2 Agroecological and organic practices: looking in the same direction

### 2.1 The relationship between organic farming and agroecological approaches

Both agroecological and organic practices were born from a rejection of industrial systems and are both often cited as promising solutions for the environmental and social challenges that we are facing today. Both are therefore, since their beginnings, inspirational and inclusive practices and movements that continue to be so today. Interestingly, the relationship between the two is quite variable in the scientific literature: they are considered as synonyms, one (organic farming) as the technical translation of the other (agroecology), as different production approaches, or as different ways of presenting themselves to the (final) market (Barberi et al., 2017). As such, the relationship between agroecology and organic can be ambiguous in the sense that some see agroecology as a stricter interpretation of organic, while others see it as more relaxed, more lenient implementation of organic ideas (e.g. agroecology as promoted by the French government).

**Millions of small farmers globally use organic practices without being certified as organic.** These farmers may avoid using synthetic inputs, prohibited in organic farming, and are referred to being part of the agroecological movement, a term that denotes the overall sustainability of the practices they use. In this context, it is relevant to make the distinction between organic by design as opposed to organic by default; the latter identifies a situation where there is no access to synthetic inputs. In any case, organic agriculture benefits from the knowledge of these small farmers (Vogl et al., 2005). In light of the above, IFOAM – Organics International deems that organic is a well-defined subset of agroecology and that certification is a tool, not a prerequisite. Indeed, it is practice, not per se certification, that defines whether a production system is organic or not. Similarly, the European Economic and Social Committee stated that over the whole of Europe, producers may practice organic and other environmentally friendly practices without a label (EESC, 2019). It is important to highlight, however, that **in Europe agroecological practices are mostly applied by organic farmers.**

As mentioned in sections above, principles and values are important for both agroecological (Section 1.2.1) and organic (Section 1.2.2) approaches. While the principles underlying these practices are not exactly the same, there are many points of overlap. Both support a “closed system” approach, give a primordial importance to soil fertility and maintaining biodiversity, promote transition pathways towards more sustainable food systems, and optimise performance by intensifying and building upon natural systems rather than by intensifying external inputs (Arbenz, 2018; Bellon et al., 2011; Niggli, 2015).

Following the synergies between the two approaches that have been highlighted above, it is worth mentioning where the divergences lie. The two approaches’ initial paradigms are not entirely the same and may have further translated into potentially different techniques used on farms (Bellon et al., 2011; Niggli, 2015). Indeed, the initial paradigm of organic farming is the soil including soil fertility and soil research, while agroecological research started from ecology and pest prevention, where biodiversity plays a crucial role. Whether these historical paradigms are still of relevance is however open for debate, also because the importance of soil in organic is clearly and directly linked to protecting and fostering biodiversity. A major difference between the two approaches is that after some decades and with increased uptake, not only organic farmers and



practitioners but also regulators and/or relevant national authorities, felt the need to define minimum requirements and to verify compliance, which is not the case for agroecology, and that clear thresholds and regulations are not present in the case of the agroecological approach, while they are very much present for organic. While sharing similar principles with agroecology, organic agriculture has in addition therefore defined minimum requirements for an operation to be called “organic”. For instance, the concept of resistance and prevention of pests is similar in both systems, but the final decision regarding the types of plant protection products used is different. Synthetic pesticides are not forbidden in agroecological practices, while in organic there is a list of permitted plant protection products which *de facto* prohibits the use of synthetic pesticides. Finally, another distinctiveness is the fact that organic farming is often certified, by a third party in Europe, USA and other regions, and increasingly by participatory guarantee systems (PGS)<sup>3</sup> outside Europe and other regions in which official certification schemes are enforced, while there is no established verification system for agroecological farming, which relies more on short supply chains and trust. However, it is worth noting that PGS are also very much reliant on short supply chains and trust, and that in Europe, PGS or not, certification or not, the organic movement has often been the driving force for the development of short supply chains and of community-supported agriculture (CSA).

A practical example of the synergies and differences between organic practices (as intended in both the EU organic regulation and IFOAM principles) and agroecological practices is crop production. Points in common include soil fertility, crop rotation, crop and cultivar choice, experimenting with no tillage, as well as pest, disease and weed management. Requirements within these broader concepts may slightly differ, in particular regarding origin and quantity of products used for soil fertilisation as well as a few elements of pest, disease and weed management.

Having said this, both movements have the same common driver of transforming the current food system towards increased sustainability and fairness, and both organic and agroecology emphasize the contribution agriculture can make towards achieving the SDGs. Both movements have the vision of an ecologically-based system that preserves biodiversity and is respectful of the environment and natural resources, a system that respects people by fostering social interactions and preserving cultural differences (Arbenz, 2018; Barberi et al, 2017; Bellon, 2016; Migliorini et al., 2017; Niggli, 2015). As such, **organic and agroecology should not be considered in opposition to each other, but should be considered through their synergies, common principles and drivers.**

## 2.2 Working together to transition towards sustainable food systems

### 2.2.1 The inclusive vision of the organic movement

In 2015, IFOAM EU, the European association for organic food and farming that represents the organic movement in Europe, developed and published its vision for 2030 – *transforming food and farming*<sup>4</sup>, which explicitly mentions agroecology. IFOAM EU’s vision for food and farming is of a fair, environmentally conscious, healthy and caring system widely adopted in Europe. According to the 2030 Vision, the European organic movement continues to lead change, believes in holistic approaches and thrives on interactions with other like-minded initiatives, including fair trade, agroecology and urban agriculture. Indeed, **transforming the European and global food system to a system that is truly sustainable needs both the agroecological and the organic approaches - which are largely the same** (Arbenz, 2018). In Europe, agroecological practices are for instance mostly implemented by organic farmers. In 2015, IFOAM EU also issued the publication “Feeding the people”<sup>5</sup>, a collection of pieces written by several experts on agroecology, coordinated by Bernadette Oehen and Angelika Hilbeck, which highlights the need for more research on agroecological practices, as well as the obstacles that must be overcome in order to increase the uptake of these practices, e.g. a lack of supporting policies and incentives.

The European Technology Platform for organic food and farming (TP organics) published “The European Innovation Partnership: opportunities for innovation in organic farming”<sup>6</sup> which shows the determination of

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<sup>3</sup> The official definition of Participatory Guarantee Systems (PGS) of IFOAM organics international is: “PGS are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange”.

<sup>4</sup> IFOAM EU vision for Europe in 2030 available here:

<https://www.ifoam-eu.org/sites/default/files/413-ifoam-vision-web.pdf>

<sup>5</sup> Available here: [https://www.ifoam-eu.org/sites/default/files/ifoameu\\_policy\\_ffe\\_feedingthepeople.pdf](https://www.ifoam-eu.org/sites/default/files/ifoameu_policy_ffe_feedingthepeople.pdf)

<sup>6</sup> Available here: [http://orgprints.org/29868/1/ifoameu\\_research\\_eip\\_dossier\\_en\\_201402.pdf](http://orgprints.org/29868/1/ifoameu_research_eip_dossier_en_201402.pdf)

the organic sector to identify synergies between organic and agroecological practices and to specifically promote funding for research and innovation that looks at the bigger picture, i.e. transforming the current food system. TP organics also published a position paper on the 9th EU Research & Innovation Framework Programme (FP9)<sup>7</sup> which asked for certain measures to be included in the FP9 with the aim of exploiting “the potential of organics and agroecology to transform food and farming and achieve the SDGs”, e.g. at least 50% of EU agricultural land should be managed according to organic and agroecological principles by 2030.

Bioforum Vlaanderen, the Flemish organisation of organic food and farming and member of IFOAM EU, took the lead in bringing together the agroecological and the organic movements in Flanders by establishing the organisation “Voedsel Anders Vlaanderen” which evolved in a movement for an alternative food system (agroecology). In their view, agroecology is an expression of the 4 principles of organic farming; it is a goal to aim for, a direction, and organic certification can be seen as a checking point on the path towards agroecology.

On a more global scale, IFOAM – Organics International together with the FAO and the World Future Council have joined forces in 2018 to institute the world biggest contest on agroecology called “Future Policy Award” with the aim to praise exemplary policies and legal frameworks that scale up agroecology. The Gold prize went to Sikkim, a state in Northeastern India which is the first state to be fully organic (all of its farmland is certified organic) and where the 100% organic policy benefitted more than 66000 farming families, as well as the tourism sector. Generally, IFOAM sees organic agriculture as a way to achieve sustainable food systems alongside other agricultural approaches.

To summarize, **organic farming should be strengthened as a practical and certified approach of agroecological farming**. Agroecology is a way to express the four principles of organic farming and can thus be seen as a free-thinking space to create concepts and practices for organic farming to develop beyond the organic regulation. In other words, **the development of organic agriculture and its principles should be seen within the agroecological production model**. For instance, how organic farming can further develop as an agroecological production model is a central theme in the new research strategy for organic food and farming in Flanders for 2013-2017. The vision for this research strategy highlights that “sustainability in all its meanings and at all levels” as well as a long-term development vision must be kept in mind and considered.

## 2.2.2 Case studies and cross-fertilisation between agroecological and organic practices

The 2018 IPES-Food report “breaking away from industrial food and farming systems”<sup>8</sup> reports on seven recent case studies on the agroecological transition. These case studies give a very detailed account of the relationship between agroecology and organic, showing that organic can play an important role in the agroecological transition. Two of these case studies occur in Europe: (1) in France the Drôme Valley is on the road to becoming the first organic region in Europe also thanks to national policies aiming for France to become a global leader in agroecology; (2) in Spain where a multi-actor change process in the Vega region has led to the establishment of education programs about organic agriculture, local and direct sales initiatives, organic and local public procurement, and conversion to organic agriculture. Even though public support ended in 2014, organic farmers’ groups and cooperatives have not only survived but also expanded in size. The report also identifies leverage points which proved particularly important for driving the transitions, including forging new alliances across disconnected areas, bringing food and farming systems to a more local level, and promoting knowledge-sharing among farmers.

While the above-mentioned case studies show that **organic and agroecological practices can work hand in hand to achieve a transition towards sustainability, it is important to highlight that these two approaches can learn from each other and build upon each other’s knowledge and best practices**. Examples of areas for “cross-fertilisation” between agroecological and organic practices include the need for organic farming to innovate in terms of technology and the need for agroecology to explore the “practice” aspect of its three facets further. While many innovations have been created or taken on board by the organic movement since its beginnings, for organic agriculture to be fit for the future, there is a need to further innovate in terms of technical, ecological and social innovations. In order to implement innovations that are in line with the organic principles, there is a need for cooperation and a platform for discussion, where farmers are considered as researchers and holders of technical and precise knowledge.

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<sup>7</sup> Research & innovation for sustainable food and farming, available here: [https://tporganics.eu/wp-content/uploads/2017/11/TPOrganics\\_FP9\\_position\\_paper\\_final\\_Nov2017.pdf](https://tporganics.eu/wp-content/uploads/2017/11/TPOrganics_FP9_position_paper_final_Nov2017.pdf)

<sup>8</sup> Available here: [http://www.ipes-food.org/img/upload/files/CS2\\_web.pdf](http://www.ipes-food.org/img/upload/files/CS2_web.pdf)

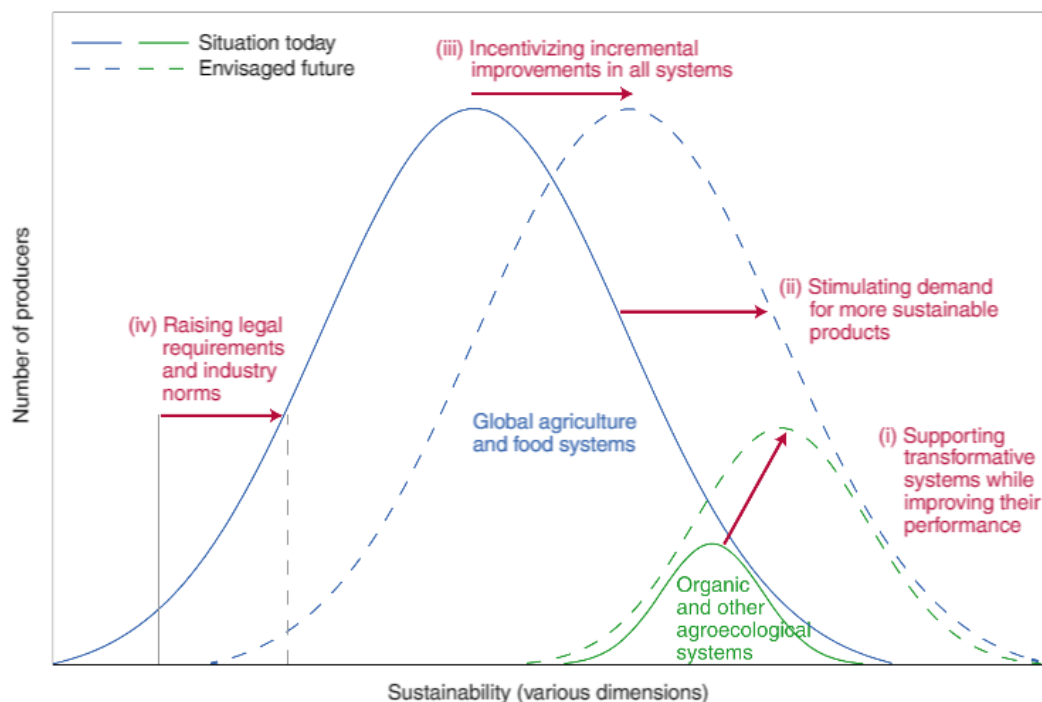
Agroecology education is often considered as a bridge between its research facet and its practice facet and currently more than 30 research institutions employ the term ‘agroecology’ in defining institutes, departments, etc (Wezel et al., 2018). Universities have therefore made agroecology stronger as a science, perhaps taking precedence over agroecology as a practice or a social movement, at least in Europe. Therefore, it would be interesting to identify where organic agriculture and agroecological practitioners and researchers can benefit from knowledge exchange. Indeed, **organic farming is viewed by certain authors as an “area of practice” for agroecology** (Bellon, 2016).

As such, the learning process can occur in both directions – between the two movements and their actors. While learning is undoubtedly important, enabling a political and economic environment that allows for practical implementation should be a priority for both movements, as further explored in the next section.

### 2.2.3 Advocating together towards policy coherence

As highlighted above, both agroecological and organic principles and practices provide similar answers to the challenges that we are facing today and can contribute towards achieving the SDGs.

As visually represented in Figure 2 below, there is broad consensus that global agriculture and food systems need to become more sustainable (Eyhorn et al., 2019). Two main approaches are proposed for this transition: sustainable intensification (i.e. incremental steps in all systems) and scaling up transformative systems like organic agriculture and agroecology (in green). The two approaches are not mutually exclusive but can unfold important synergies if policies are formulated in a coherent way. There are four main policy approaches to achieve the needed transition, which are highlighted in red in figure 2. The organic movement and the agroecology movement should join forces with likeminded stakeholders to advocate for such coherent policies that drive a transition towards more sustainable agriculture and food systems.



*Figure 3: Policy interventions (red arrows) to drive sustainability in agriculture and food systems. Source: Eyhorn et al., 2019.*

The FAO is very much involved in the process of scaling up agroecology and organised the second international symposium on agroecology in April 2018, which brought together about 400 stakeholders involved in the matter. One of the key actions identified by the FAO in order to scale up agroecology is to promote markets for agroecologically based products for health, nutrition and sustainability by promoting organic products (FAO, 2018b). Generally public policy must be reformed to give more voice to the bottom up approach rather than to the top down approach. New policies are needed that recognise and strengthen the role of local institutions and farmers in regulating agri-food systems (Arbenz, 2018).

Agroecology is also about limiting externalities, i.e. external costs borne by society which stem from agricultural practices such as ground water pollution. The same can be said for organic agriculture (Holden, 2016). More specifically, the vision of the European organic sector for 2030 is that *“all actors need to work together to ensure that (...) the costs and benefits of food production are accounted for”*. Communicating about the true cost of food and upholding the polluter pays principle are therefore topics that are close to both the agroecological and organic movements.

International fora such as the FAO have recognised the necessity of using agroecology and organic practices as a tool to accomplish the SDGs. Policies related to true cost accounting and to local communities are only two of the many topics on which organic and agroecological approaches are similar. As such, it is time that these two movements work together in order to promote policies that support achieving the SDGs.

### 3 Avoiding greenwashing and consumer deception

Agroecology bears important concepts to further develop sustainable agricultural practices, and the agroecology movement is therefore an important partner for the organic movement. Both should go hand in hand to transform farming and food systems. However, the term “agroecology” is also sometimes used to qualify practices that do not seek to move away from the industrial agriculture model or that rely on synthetic herbicides. Likewise, in the field of marketing, promoting the term “agroecology” may bear some risks. **As the term “agroecology” is not protected by law, there might be food producers that use the claim “from agroecological farming” without any proof that agroecological practices have truly been used.** Already today we can see trends of conventional producers claiming that their products are “sustainable”, “green” or using other similar terms to compete with organic products for the attention of conscious consumers. Therefore, we underline the need to avoid consumer deception.

### 4 Conclusion

Both the organic and the agroecological movements started as inspirational and inclusive movements, that continue to inspire change today and that highlight the contribution agriculture can make towards achieving the SDGs.

With this paper, the organic movement wants to stress the importance of the synergies between agroecological and organic practices, and that these practices have the potential to truly and fundamentally transform the current food system, together. It is in the interest of both the agroecological and the organic movements to transform the current food system towards a more sustainable, fairer, and more transparent system that respects natural boundaries and preserves our natural resources. Indeed, The EU and its Member States need to put greater emphasis on short supply chains and agroecology in order to preserve its agriculture and make it more resilient to new challenges, e.g. climate change (EESC, 2019).

Joint action is necessary to achieve further political recognition for both organic and agroecological practices within the organic certification system but also outside of certification, and to advocate for conducive policies. For instance, the Commission’s proposal for a new CAP only mentions agroecology once in the recitals; organic agriculture is mentioned thirteen times (3 times in recitals, 5 in the main text and 5 in the annexes). In the Horizon Europe legislative text, organic and agroecology are each mentioned only once. These mentions are not a significant amount given the contribution that organic and agroecology can make towards sustainable agriculture and more sustainable food systems. In its [position paper on the CAP](#), IFOAM EU advocates for measures that are in line with agroecological principles, e.g. to set the mandatory minimum expenditure in each CAP Strategic Plan at 70% for the environment and the climate. The proposal for the CAP beyond 2020 proposes nine clear objectives: three social objectives, three economic objectives and three ecological objectives. While both agroecology and organic are mentioned as sustainable farming systems in the objective about efficient soil management<sup>9</sup>, they are for instance not mentioned as such in the objective about agriculture and climate mitigation. This is surprising given the many beneficial effects that organic and agroecological farming have on the environment. As such, **both movements should join forces to gain more political recognition in the years to come and to at least be mentioned in policies that are of relevance to both movements.**

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<sup>9</sup> [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key\\_policies/documents/cap-specific-objectives-brief-5-soil\\_en.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/cap-specific-objectives-brief-5-soil_en.pdf)

The term "agroecology" conveys the need for a profound re-design of farming systems based on ecological principles, and it should not be interpreted as a light greening of conventional agriculture nor become a new word for "integrated agriculture".

The organic and the agroecological movements should build on the political momentum surrounding the sustainability of food systems and emerge as a solution to the current environmental, social, and economic challenges that Europe, and the world as a whole, face.

The similarities and close connections between organic farming and agroecology should be recognized and strengthened at a political level in order to develop increasingly concrete, on the ground solutions, through cross-fertilization of ideas and practices. Ultimately, the challenge to render current agricultural systems compatible with ecological and social principles is enormous (Altieri et al., 2017). In light of the above, **the agroecological movement should build on the success of organic farming and organic farming should be the basis for further developing agroecology in Europe.**

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