By 2050, the population of the Earth is expected to top out at just over 9 billion. As of 2020, estimated 0.8 billion people of the Earth’s 7.8 billion population are undernourished. Additional 2 billion people will exert additional requirements on the Earth’s resources and global climate budget. Climate change will further affect global food security. In an interconnected world, this is a challenge that all countries will be required to deal with in the next 30 years. The European Union wants to contribute its share and has a plan – the European Green Deal – supported by the European Parliament in January 2020. The plan is that as the Earth’s population reaches 9 billion, the Union becomes carbon-neutral. At the heart of the Deal there is an urgency to transform European “wasteful” food systems and make every link in them more sustainable – from the producer “the farm” to the consumer “the fork”. This goal is laudable since the amount of CO2 emissions, the amount of food waste, the amount and quality of available water, the quality of soil and whether biodiversity will be maintained, largely depends on the food and agricultural governance and consumer behaviour.

The European Commission published the Farm to Fork (F2F) strategy in May 2020. The strategy will be worked out through actions contained in the annexed action plan. The action plan tasks the Commission with the preparation of a series of legislative reviews, fitness-checks, new proposals and amendments as well as non-legislative instruments and actions supporting sustainability goals until 2023. The strategy and the accompanying action plan aspire to be comprehensive: they cover areas from the use of pesticides, feed additives, animal welfare, competition rules to the cooperation of primary producers, corporate responsibility,
the reformulation of processed food, the setting of nutrient profiles and marketing standards, the regulation of food contact materials, the origin indication, date marking and labelling or the promotion of food waste reduction. The strategy had not been preceded by an overall impact assessment, however, the Commission pledged that impacts of each of the 27 proposed measures would be thoroughly assessed. Already, (i) a roadmap for the fitness check of the animal welfare legislation, (ii) an implementation report on the Sustainable Use of Pesticides Directive, (iii) a report on the REFIT evaluation of the pesticide legislation or (iv) a Commission staff working document on the evaluation of the Nutrition and Health Claims Regulation accompanied the publication of the strategy.

The sustainable use of pesticides and the promotion of organic farming – a type of “low pesticide-input pest management” – will be two of the most closely watched aspects of the transformation. Whether pesticides are used in a sustainable manner may be assessed either by assessing the risks associated with the use of pesticides or by calculating the overall volume of pesticides used in a given territory. Hard, well-collected and aggregated data is needed for those types of assessments. Although the Commission developed two harmonised risk indicators that were meant to quantify the overall progress on reducing the risks linked to plant protection products, the Commission itself admits that further work on harmonised risk indicators is necessary and that Member States may continue using existing national indicators to better reflect the trends in the risks relevant to their territory. Moreover, the EU Court of Auditors advised the Commission to improve statistics on plant protection products when revising the Sustainable Use of Pesticides Directive. Overall, there is no common position among the Member States and the Commission as regards the precise type of assessment on pesticides and their sustainable use. This is an illustration of a tangible problem of the implementation and revision of EU legislation impacting the sustainability targets.

The Council approved the F2F strategy in October 2020. It took note of the strategy’s targets and pointed out that “achieving those targets will require efforts from Member States and all stakeholders and intensive co-operation, consultation and collaboration”. Also, in the Council’s view, there is a clear need for more advance work towards the Commission’s target for the development of organic farming in the EU. In that respect, the Council called on the Commission to assess other possible farming models that may deliver similar environmental results. The Council requested the Commission “to base legislative proposals on scientifically-sound ex-ante impact assessments describing the methods of calculation of the targets and the baselines and reference periods of each individual target, after consultation with the Member States” and “to ensure that these targets are EU targets to which all Member States must contribute through action at national level.” To that purpose “Member States’ different starting

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2 See Article 14 of the Sustainable Use of Pesticides Directive.
3 By taking into account the handling procedures, modification of doses or protecting equipment.
4 One based on the quantities of those products placed on the market and the second based on the number of emergency authorisations. The Commission suggests a three-year baseline in calculating these indicators.
5 Nevertheless only a small minority of Member States identified specific targets and indicators based on their national action plans, such as the SYNOPS risk indicator in Germany, the Pesticide Load Indicator in Denmark or the risk index for health and the environment in Sweden.
points, circumstances and conditions must be taken into account”. The emphasis is therefore needed to be placed on the efficient and cost-effective administration and implementation of the F2F strategy.

The F2F strategy has not been without criticism from academia, the industry and other stakeholders. It has been suggested that the strategy has presented seemingly “neutral” solutions to complex policy problems laded with uncertainties and driven by competing values of political communities. The reports of the Science Advice Mechanism that paved the way towards the strategy have been criticised for neglecting economic, legal and regulatory realities. Those who bring the ambitious political goals of the Union into practice are however those on the ground: business operators and farmers with their practices, consumers with their behaviour and regulators with their tools and incentives. What is clear for now is that the F2F strategy represents a fresh possibility to “recount” the Union’s and the Member States’ standpoint and progress on sustainability (in qualitative as well as quantitative terms) and fix what needs to be fixed. The methodology on measuring the progress, as well as assessing the current situation, becomes a central point of the battleground.

This issue of the Journal aims to provide space for EU-wide policy insights into the F2F strategy’s targets and their implementation. Its goal is to moderate a discussion regarding the on-the-ground experience with the Union’s regulations with the vision to create sustainable food systems. The on-the-ground experience may often capture a tension between aspirational targets of the EU politics and the realities that decide on targets’ feasibility, costs and impacts. In legal terms, the tension is best depicted in a debate of which level of regulatory harmonisation (maximum harmonisation or minimum harmonisation) to choose to tackle problems of common interest.

![Farm to Fork (F2F) Strategy Targets](image.png)

- **To reach the objective of at least 25% of the EU’s agricultural land under organic farming by 2030**
- **To reduce the overall use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50% by 2030**
- **To reduce nutrient losses by at least 50%, while ensuring that there is no deterioration in soil fertility**
- **To reduce the use of fertilisers by at least 20% by 2030**

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10 See e.g. for genome editing Kai Purnhagen and Justus Wesseler, “Maximum vs minimum harmonization: what to expect from the institutional and legal battles in the EU on gene editing technologies”, *Pest Management Science* 75, pp. 2310-2315 (2019).
Articles are invited to reflect on national food systems and their components in a holistic matter, covering:
- yields,
- water resources,
- soil fertility,
- biodiversity,
- land use
- and nutrient contents.

Other factors accounting for agricultural and environmental performance may be included, such as the level of dangerousness of pesticides used in a Member State.

Authors are equally encouraged to include economic aspects to their considerations.

Articles are equally invited to factor in (i) the impact of climate change on the national agricultural and (ii) the availability of technological innovations, such as new breeding techniques.

Articles should be data-driven and data should relate mainly to the national situation of a particular Member State.

Articles should reflect the state-of-the-art scientific methods of data collection and interpretation.

Deadlines:

**Delivery for the peer review process:** July 2021

**Final publication:** December 2021