



SUSTAIN Paper Series 2021

The data producer's right in digital agriculture: towards a 'data farmer's privilege'?

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1. Introduction

Digital transformation in agriculture is accelerating, providing new opportunities to integrate farmers, including smallholders, in a data-driven agrifood system where disruptive digital technologies allow to work more efficiently and sustainably (1, 2). Although the digitalisation of agriculture is associated with some threats, such as the risk of a 'digital divide' (1, 3), the deployment of digital technologies in agriculture has the potential to revolutionise farming activities. By way of illustration, the use of innovative digital solutions can facilitate working conditions of farmers, enhance crops productivity, decrease the pressure of agricultural activities on the environment, simplify crop management and increase farms performance, both in economic and environmental terms (4). In such a context, the importance of agricultural data, especially non-personal data, is rapidly growing: the digital transformation of the agriculture and food system 'is about data and the use of data' (5).

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2. Non-personal data in the agricultural sector

The digitalisation of agriculture raises significant legal challenges, especially when agricultural data management, collection, access and ownership are concerned (6). Agricultural data involved in digital agriculture can encompass both personal data, in accordance with Article 4 (1) of Regulation (EU) 2016/679 (General Data Protection Regulation) as ‘any information relating to an identified or identifiable natural person’, and non-personal data, i.e. data other than personal data.

Non-personal data in agriculture have a relevant economic value and they cover a broad range of information, including, for example, agronomic data, compliance data, and meteorological data. These sets of data do not qualify as personal data, as well as other categories of data that have to be evaluated on a case-by-case basis, e.g. data concerning soil fertility and crop yields: they do not represent personal data, provided that they are not relating to an identified or identifiable natural person (7). In these cases, the General Data Protection Regulation shall not apply.

It should be noted that, unlike personal data, there is not a legal framework designed to apply solely to non-personal data, and the other applicable laws (e.g. concerning copyright, protection of databases, trade secrets) are deemed to be inadequate to prevent unfair business practices (8). Indeed, in the absence of such legal framework, relying on contractual arrangements can provide greater flexibility to the contracting parties, but it may not protect the weaker party against the abuse of contractual power by the other party (7).

At the EU level, a comprehensive approach on non-personal data has been provided only in relation to movement within the Union by Regulation (EU) 2018/1807 on a framework for the free flow of non-personal data in the European Union (FFD Regulation).¹ The FFD Regulation applies to the processing of electronic non-personal data, including data on precision farming that can help to monitor and optimise the use of pesticides and water, as specified in recital 9. However, the FFD Regulation does not regulate some key issues concerning non-personal data, such as access rights.

¹ According to Article 1, the FFD Regulation provides rules relating to data localisation requirements, availability of data to competent authorities and portability for professional users, which are going to be briefly illustrated. As indicated in Article 4, data localisation requirements are prohibited: there is only one exception for public security reasons. Pursuant to Article 5, data shall be made available to competent authorities for the performance of their official duty, even though data are processed in another Member State. Article 6 states that the Commission shall encourage and facilitate the development of self-regulatory codes of conduct at Union level in order to contribute to a competitive data economy. These codes of conducts will be developed in close cooperation with all relevant stakeholders and shall be based on the principles of transparency and interoperability, and cover all the listed aspects (e.g. minimum information requirements, certification schemes).

3. Data access and the 'missing' data producer's right

Agriculture is both an important consumer and supplier of data (5). In particular, the agricultural sector is nowadays producing a noteworthy quantity of data. In light of this, stakeholders are concerned about the risks associated to data sharing, which may influence the distribution of market power in the agrifood chain to the detriment of farmers. Therefore, it is deemed fundamental to protect farmers' ownership and control of farm data (9). In this context, addressing the issue of access is one of the main legal challenges concerning non-personal data in agriculture.

In 2017, the Commission in its Communication named 'Building a European Data Economy' underlined the importance of providing a future comprehensive legal framework for machine generated data access and intended to engage in a dialogue with the relevant stakeholders (10). One of the topic to be discussed concerned the data producer's right, as the right to be granted to the data producer, i.e. the owner or long-term user of the device, to use and authorise the use of non-personal data. The Commission believes that the legal situation of data access needs to be clarified: more choice should be given to data producers 'by opening up the possibility for users to utilise their data and thereby contribute to unlocking machine-generated data' (10). The future legal framework should also regulate the relevant exceptions, especially the provision of non-exclusive access to the data by the manufacturer or by public authorities 'for example for traffic management or environmental reasons' (10). Nonetheless, the comprehensive legal framework envisaged by the Commission for non-personal data has not been established yet.

4. Designing a 'data farmer's privilege'

From a *de iure condendo* perspective, a link between the abovementioned 'data producer's right' and the 'farmer's privilege' has been suggested in legal doctrine (11). Indeed, the attribution of access rights to farmers over non-personal data has been associated with the agricultural exemption in the plant variety protection system (also known as 'farmer's privilege'). This provision allows farmers to use for propagating purposes the harvested material obtained by planting propagating material of a variety covered by IP plant variety rights under certain conditions (12). Specifically, the farmer's privilege represents the possibility to exclude the act of seed saving from the scope of the plant variety right. This use shall be made by farmers, in the field, shall concern only listed plant species and shall take place on the farmer's own holdings. This privilege can be found both at international

level, in Article 15 (2) of the 1991 International Convention for the Protection of New Varieties of Plants (UPOV Convention), and EU level, in Article 14 of Regulation (EC) 2100/94 on Community plant variety rights. In particular, Regulation 2100/94 specifies that the level of the farmer's holding shall not be quantitatively restricted; the plant variety right holders have the exclusive responsibility on monitoring the compliance with the provision of Article 14; the farmers shall supply all the relevant information when requested by the plant variety right holder; small farmers shall not pay any remuneration to the right holder, unlike other farmers who shall pay an 'equitable remuneration'.² In light of this, a future legal framework on non-personal data could take into account the pattern set by the farmer's privilege in plant variety protection to design a 'data producer's privilege'. In particular, such a privilege should establish all the relevant criteria to unambiguously regulate the right to using non-personal data by data producers, including subjective and objective limits of their use, equitable remuneration and exemptions, possible quantitative restrictions and so on. In this way, the right of farmers to use the produced non-personal data will not completely depend on contractual negotiations that are often unbalanced.

5. Final remarks

The rapid technological developments in digital agriculture and the legal challenges related thereto call for an assessment of the suitability of the current EU legal framework. Inter alia, data-driven innovation in the agricultural sector can cause major shifts in market power relations, affecting the position of farmers in the agrifood chain. In light of this, the legislator needs to address the questions related to non-personal data regulation, concerning not only access, but also management, collection and ownership. In particular, the right related to the use of non-personal data collected from farmers and generated on their farm shall be taken into specific consideration: it is fundamental to design a 'data producer's privilege', potentially following the pattern set out by the 'farmer's privilege' in plant variety protection. Considering the growing wide-scale application of digital technologies in agriculture, a comprehensive legal framework for non-personal data is required in order to prevent unfair business practices and power abuse across the agrifood chain. The risk of a 'data digital divide' in agriculture may otherwise emerge as a form of economic and social inequality among agricultural data producers, data providers and data users.

² The notion of small farmers is laid down in Article 14 (3) third indent of Regulation (EC) 2100/94 and covers the farmers who do not grow plants on an area bigger than the area needed to produce 92 tonnes of cereals. In the case of other species, the notion refers to farmers who meet comparable criteria.

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