THE USE OF BLOCKCHAIN AND SMART CONTRACTS IN THE AGRI-FOOD INDUSTRY.

Legal issues related to the use of Blockchain, Smart Contracts and Artificial Intelligence are at the forefront of lawyers' minds, as these new technologies could bring a paradigm shift for economic transactions. The main objective of this research project is to outline these new phenomena and to investigate their economic and legal implications. For this reason, the analysis of smart contracts and blockchain in the agrifood industry will focus on two area of paramount importance: consumer protection and the contractual and bargaining power of the parties within unregulated sectors.

After a general reconstruction of the legal framework of Blockchain and Smart contracts, the work will investigate on the application of Blockchain and smart contracts in the agri-food industry.

The first part of the work will be about the impact of the blockchain on the contractual power of the parties in the non-regulated sectors. The focus will be on the contractual balance between professionals along the value chain, first of all in non-regulated sectors (such as hard wheat). This is because with the introduction of smart contract and blokchain in agri-food industry, the intermediary between the contracting parties, to whom they were linked by a relationship of trust, will be missing. The intermediary had a role in guaranteeing the correct negotiation between the contractual parties, now replaced by the legal value of the Blockchain. The problem relates to the state of technological innovation (known as Industry 4.0), which is more advanced in regulated sectors than in unregulated ones. The focus on this issue has to be combined with the lack of professional protection, because in the unregulated sector there might be a lack of fairness and representation of the operators, who are not gathered in interprofessional organisations. The aim is to verify whether the Italian Consumer Code or the italian civil code can be applied to BtoB relationship along the supply chain, in harmony with the General Food Law (EU reg. 178/2002) and other European legal instruments (as European resolution Parliament of 20 october 2020 or even the proposal for a regulation on Digital Service in the near future). It depends on the qualification of two business parties, whether the behaviour of one of them is as a consumer (i.e. subcontracting agreement). Understanding this will be necessary to identify a good level of protection. (This part will be presented by Emanuela Maio).

In the second part, it will be investigated the Consumer Protection Law analysis of the legal issues stemming from the use of Blockchain and smart contracts in the agri-food industry. In the agrifood industry DT ensure the reliability of food data. In the blockchain technology there are different instruments to protect transparency and complete information of the consumer: besides the Food Chain based on cryptocurrency to manage informations by smart contracts, there's IBM Food Trust that let all the authorized users to access immediately to all industry and traceability agrifood informations loaded in the blockchain. Actually, DT are used by some GDO companies. I.e. Coop Company is developping the Coopchain Project, based on the use of QR code to tell the path of biological eggs. The aim of this work is to prove that blockchain technology is able to create a trusted community that protects companies and consumers as well. Blockchain technology can also be useful to communicate data about the safety of goods. Since that many reasons nowadays push consumer to choose a specific good (sustainability, safety, prevent falsification), blockchain and DT could be effective helpers to support the improovement of Supply chain in the food industry. Because it transforms informations in knowledge (about production phase, transport and conservation temperature), it let the consumer feels like being part of a trusted community. (This part will be presented by Erica Adamo).