PhD Curricula - Blockchain and Distributed Ledger Technology

Curriculum 8: **Agriculture and agrifood**

The Phd candidate will study how current and next generation blockchain can support increased traceability and transparency in food supply chains and support the implementation of green and sustainable schemes. The subject of the study will cover both the application and the theoretical aspects.

From the application side, the study will contribute to the ambition of developing sustainable, productive and climate-neutral, biodiversity-friendly, and resilient farming systems providing consumers with affordable, safe, healthy and sustainable food, minimizing pressure on ecosystems, improving public health and generating fair economic returns for farmers through the exploration and development potential of the use of blockchain in the agri-food sector.

From the theoretical side, all the aspects of tracing, integrity, authentication, identification (covering also Self Sovereign Identity thematics) making use of blockchain will be considered. Characteristics of DLTs to be applied in agrifood with special attention to green and sustainability concerns will be exploited.

Keywords:

- Food supply
- Smart agriculture
- Sustainable cultivation
- Traceability
- Transparency
- Sustainable agricultural systems
- Information asymmetry
- Biodiversity and resilience
- Conscious consumption