



## PRACTICE ABSTRACT

### Digitalisation: Needs and Impacts

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# DIGITALISATION AND AMMONIA EMISSIONS IN FLANDERS, BELGIUM

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In the livestock farming sector in Flanders there are several issues that need to be addressed. This followed from research that sought to understand the main research question: **“What is the impact of individual farm based monitoring of emissions in the intensive livestock sector for agriculture, policy, and society?”**

As of right now, the livestock sector is anticipating regulation that seeks to curtail the emissions of ammonia from livestock farms. This regulation is expected to have a large impact on livestock farms and farmers. Equally, the livestock sector is suffering from poor economic performance, with low incomes for livestock farmers. This creates a space where stakeholders ask for dependable regulatory frameworks that create space to farm as well as asking for fair prices.

As a social-cyber-physical system this can be represented as social actors such as consumers, retail, governments and farmers that have influence on another as well as on physical infrastructures such as emissions, environment & nature and digital infrastructure in rural areas. This is connected to a slowly developing cyber element consisting of sensors & data sharing tools for livestock farms as well as e-government services provided by the Flemish government.

At the moment, the livestock sector is slowly digitalising and presents a mix of digital and analogue elements. Currently, sensor technologies to monitor airborne emissions are in development. However, because they are not yet ready for market there are currently no direct impacts of this technology. Stakeholders are mainly concerned with the ownership of data collected in farming.

#### Living Lab

Flanders (Belgium)

#### Key Digital Technologies

Individualised monitoring of ammonia emissions on livestock farms, E-government services

#### Keywords

Ammonia emissions, livestock, e-government, data sharing, data ownership

#### More info:

<https://desira2020.eu/west-flanders-belgium/>



Potential misuse of this data is a concern and stakeholders describe the need to ensure that farmers own the data produced on their farms. Regulatory complexity and the readiness of government actors to adopt digital technologies in agricultural regulation are named as a concern by ag-tech companies. This is also vital in relation to e-government services and the further development of digital technologies for agri-environmental governance.

