

Practical task

2.4.3

Practical task – Design your own small digital ecosystem

Imagine (or actually describe) that you manage a small farm.

Your task is to design a small digital ecosystem to help with everyday decision-making. Focus on simplicity, functionality, and low cost – open-source and locally available tools are preferred.

Assignment structure:

System goal: What do you want to monitor or improve using digital tools? (e.g. irrigation, feeding, greenhouse monitoring)

Monitored data: What data will you measure? (e.g. humidity, temperature, animal movement)

Technologies used: What sensors, applications or devices will you use? (e.g. weather stations, sensors, mobile applications, SMS notifications)

Data transmission and display method: How will the data reach you and how will you work with it? (e.g. LoRaWAN → mobile application → decision)

Expected benefit: What will this system save you or improve?

Example (inspiration for you):

Farm: vegetable garden at the house

Objective: Control irrigation as needed

Data: Soil moisture and weather forecast

Technology: Simple soil sensor + OpenWeatherMap API + SMS gateway

Data transmission: Sensor → LoRaWAN → cloud → simple application → SMS

Benefit: Water saving, less manual labor, organic farming

