**Technician for agricultural digitalisation – EQF level 5**

|  |  |
| --- | --- |
| **Code** | Later defined by ESCO |
| **Description** | The **Technician for agricultural Digitalisation** programs, manages and supervises industrial machines, plants and automatic systems, integrating and connecting them according to the new needs of the Smart Factory. With high skills in the field of enabling technologies and a strong specialization in sensor programming, robotics and advanced industrial automation, pushed connectivity (IOT; IIOT), it deals with the assembly, hardware and software configuration, testing and maintenance of individual automatic machines, intelligent plants and production lines, artificial vision systems, which make widespread use of local and remotely managed software systems. Collaborates in the selection and management of production systems and the definition of maintenance policies for production systems and after-sales. It takes care of the integration of different technologies to make machines, anthropomorphic and collaborative robots, virtualization tools of the production process and rapid prototyping communicate with each other. |
| **Alternative label** | Later defined by ESCO |
| **Regulatory Framework** |  |
| **Hierarchy** | Later defined by ESCO |
| **More specific professions** | Technician for analysis of agricultural data  agricultural drones, robotics operator and/or engineer |
| **Essential skills** | From the core curriculum (Module Soft-skills and Entrepreneurship) see Annex I  Farming activities:  - Communication tools: peer groups for innovative farmers  - Logistics management  - Traceability; quality signs and labels  - Weather forecast knowledge and/or tools  - Digital entrepreneurship  Arable crops:  - Precision farming: remote sensing, GPS, GIS, Automated farming,  - pest control: Pest and diseases models and recognition from sensors, imagery, etc  - Implementation of crop specific FMIS + Implementation of a data transfer system  - Use of Field operation management systems  Livestock  - Implementation of livestock specific FMIS + Implementation of a data transfer system  - Precision animal health system  Mixed farming  - agrotourism platforms, local product online markets |
| **Essential knowledge** | Knowledge about general agriculture principles (whole production chain)  General technical principles and options for digital agriculture  Legal framework for operating a farm  Legal framework when using autonomous machinery  Introduction to machinery with digitalisation tools; advantages and disadvantages of each available technology (assessment criteria)  Basic knowledge on GPS and GIS  Basic knowledge on FIS |
| **Optional skills** | Use of robots & drones  Arable crops: Practical training with specific machinery (weeding machine, combined harvester)  Livestock farming: feeding optimisation, traceability, FIS, specific machinery (e.g.: milking robot, autonomous feeding machine) |
| **Optional knowledge** | Use of LCA tools (examples of commercial software tools)  Basic programming knowledge  Data analysis; data exchange  e-commerce |
| **State** |  |
| **Concept URI** |  |

**Annex I**

**Basic Module for each occupational profile.**

|  |  |
| --- | --- |
| **Units** | **Learning outcomes** |
| **Basic knowledge** | * Definitions (soft skills, food industry, sustainability, bioeconomy) * Job safety * Digital learning/tools * Basic of economic and financial issues * English reading/understanding * Business-/Entrepreneurship Skills in general * Knowledge of agri-food communities |
| **Business planning/model** | * Innovation management and its deployment * Project management * Decision making * Time management * Business planning * Sales and Marketing * Cooperatives * Agri-food law, quality, safety and certification |
| **Social & Communication** | * Public speaking * Negotiation and conflicts * Food chain cooperation * Staff working/networking * Reporting and briefing |
| **Thinking** | * Organisation, planning, proactive, flexible, and strategic thinking * Problem solving * Interdisciplinary knowledge * Learning Continuously * Analytical, critical and creative thinking |