BioGov.net
Governance & Upskilling for a
Stronger Bioeconomy

Job Profiles

Funded by the European Union

info@biogov.net **www.biogov.net**

Research and Development (R&D)

Primary Production

Engineering and Processing

Consulting/Advisory

Life Sciences

Humanities and Art

Job Title

Specialist in research and development in printing production

Job Description

Research and development of technological processes in the field of printing techniques and printing production. Also, responsible for ensuring that the products are meet company standards and resolving issues that arise during production.

Responsibilities & Tasks

Carries out research and development of technological processes in the field of printing techniques and printing production. Has an overview of current and new technologies used in the printing industry and is familiar with their potential use for streamlining production processes, minimizing the ecological footprint and their possible use in future technologies.

Education

Engineer´s degree.

EQF

Level 7

Essential Skills

- **Decision Making**
- **Computer Use**
- **Analytical Thinking**
- **Technology Design**
- **Critical thinking**
- **Analysis and application of new trends in polygraphy**
- **Environmental aspects of printing production**
- **Task Planning and Organising**

Gaps & Needs in Skills

- **Digital and Industrial Technologies**
- **Data Literacy**
- **Elaboration of concepts, methodologies and forecasts of development in printing production**
- **Scientific research and development methods**
- **Data analysis supported by AI**
- **Project management**

Job Title

Research and development specialist in wood processing

Job Description

Research and development of technological processes and products in the field of mechanical wood processing. A research and development specialist focuses on collating data from different sources, analyzing information about wood processing, creating new ideas and development concepts and supporting the RD department in management and generate reports on each research task's status.

Responsibilities & Tasks

Carries out research and development of technological processes in the field of mechanical wood processing, production of composite wood materials and wood modification. Designs new and innovates existing production lines, monitors and applies the latest scientific knowledge with a focus on the procedures of complex and efficient use of wood raw material. Develops and validates new innovative wood-based products with specific properties and maximum added value. Leads, coordinates and solves complex research and development tasks.

Education

Higher technological education focused on wood processing.

EQF

Level 7

Essential Skills

- **Problem Solving**
- **Computer Use**
- **Attention to Detail**
- **Analytical Thinking**
- **Technology Design**
- **Decision Making**

Gaps & Needs in Skills

- **Digital and Industrial Technologies**
- **Data Literacy**
- **Application knowledge in smart technologies**
- **Technologies of robotization and collaborative robots in woodworking**
- **3D printing and materials for industrial applications**
- **Creation of new programs for CNC machines**
- **Establishment of working practices, means and methods of recycling**
- **Principles of augmented reality, visualisation and process modelling**

Job Title

Regional and rural development specialist

Job Description

Participates in the development of regional policy and ensures the process of preparation and implementation of the action plan at the district level. Tries to improve the quality of life and economic well-being of people living in rural areas, often relatively isolated and sparsely populated areas. Regional and rural development specialist has traditionally centered on the exploitation of land-intensive natural resources such as agriculture and forestry.

Responsibilities & Tasks

Involved in ensuring the preparation of strategy and action plans. Coordinates subjects involved in the preparation and realization of the action plan, cooperates with state administration authorities, municipalities, higher territorial units as well as other subjects of territorial cooperation and other socio-economic partners. Regional development specialist could work as Project Manager on Municipal strategy for Bioeconomy, also working on the development of long-term implementation projects. His/her tasks also include the cooperation with municipalities, municipal companies, business, industry and clusters and follow-up of appointments and events.

Essential Skills

- **Critical Thinking**
- **Working with Others**
- **Computer Use**
- **Processing Information**
- **Problem solving**
- **decision making**
- **Analytical Thinking**
- **Task Planning and Organising**
- **Orientation in analytical methodological approaches and tools**
- **Processing Information**
- **Strategy development**
- **Monitoring and Evalutation**

Education

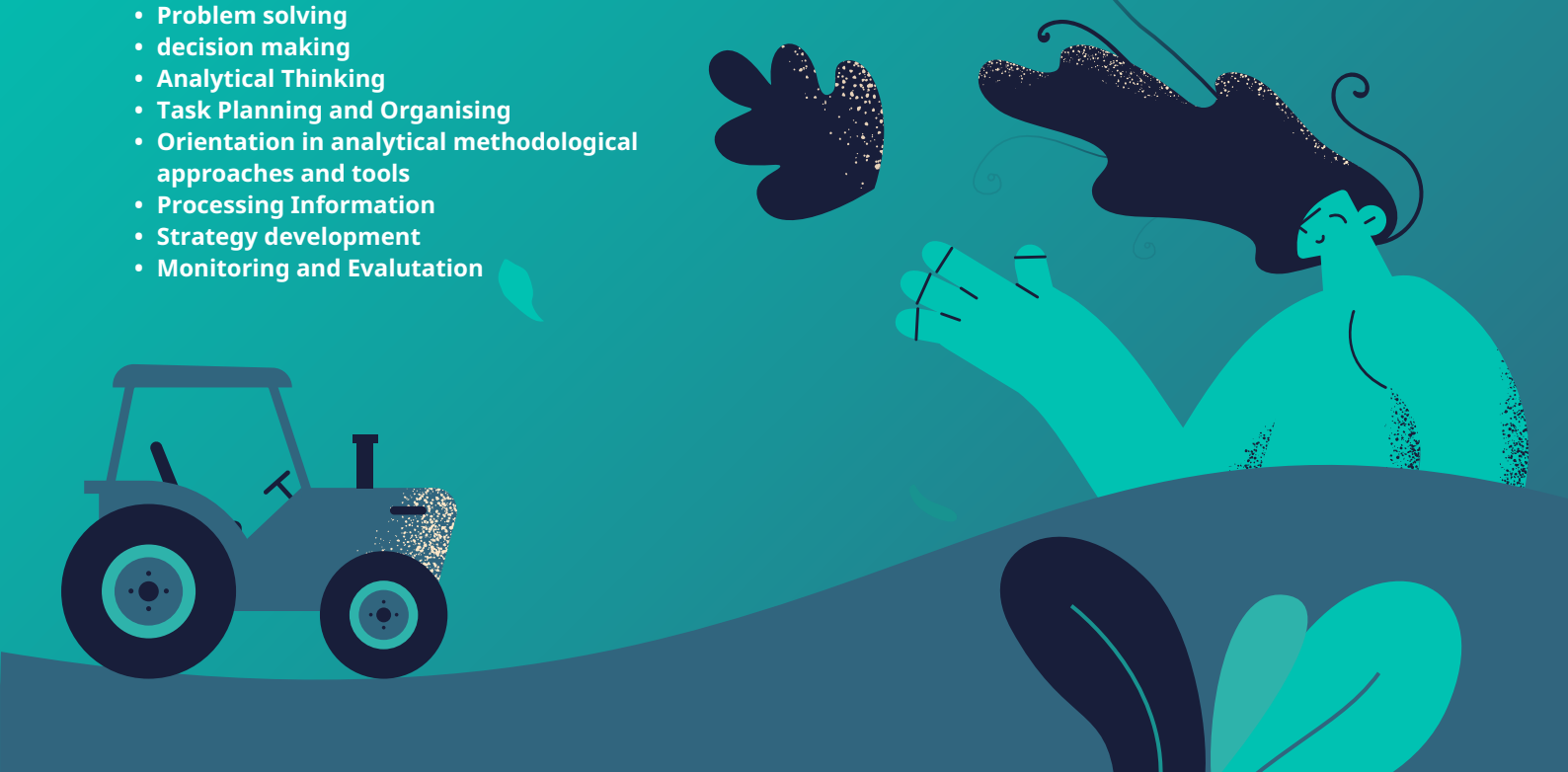
Completed studies in the field of natural sciences, (economic) geography, rural and urban development engineering or comparable qualification.

EQF

Level 6

Gaps & Needs in Skills

- **Networking and Cooperation**
- **Socioeconomic Development**
- **Project Management**
- **Principles of restructuring of regions undergoing transformation of economic orientation**
- **Development of strategic plans**
- **Local Bioeconomy Aspects**



Job Title

Researcher on sustainability assessment

Job Description

A Researcher on sustainability assessement supports ongoing research projects, collects and analyzes data, and assists in the evaluation of sustainability practices within an industry (eg horticultural industry, peatland industry, bioplastics industry, bioalcohol industry, biodiesel etc) . Also helps in the development of sustainable strategies and practices that promote environmental stewardship and social responsibility. Researchers on sustainability assessmet conduct studies to develop sustainability models, indicators and best practices. They often hold advanced degrees in fields related to environmental, economic and social sustainability. Some researchers on sustainability assessment also support policy development in federal, provincial or municipal governments.

Responsibilities & Tasks

Data Collection and analysis; sustainability assessment; investigation of regional value creation in the use of regionally available residues and renewable raw materials; preparation and drafting of proposals for new research projects; recommendations to internal and external clients on effective sustainable development strategies; Publication of scientific articles in international peer-reviewed journals.

Education

Scientific university degree (diploma or Master) in the field of agriculture, biology, physics, bioeconomy, natural Resources & Conservation; use of renewable raw materials or a comparable course of study or a doctorate in one of the fields mentioned.

EQF

Level 7

Essential Skills

- **Goal oriented working**
- **Communication**
- **Project aquisition**
- **Interdisciplinarity**
- **Organisational skills**
- **Basic German**
- **Project management**
- **Knowledge of environmental legislation and regulations**
- **Computer-aided design**
- **Be up-to-date on key drivers of sustainability**

Gaps & Needs in Skills

- **Life Cycle Analysis**
- **Empirical research in agriculture, renewable raw materials, horticulture**
- **Databases and data collection**
- **Sustainability Assessment methods**
- **Related software experience**
- **Evaluation**

Research and Development (R&D)

Job Title

Researcher on biomass exploitation

Job Description

A researcher on biomass exploitation plays a critical role in conducting innovative research, analyzing data, and providing insights into the development of new products. His/her research may be focused on different renewable materials of organic nature, including terrestrial vegetation (crops for food and feed use, woody vegetation, energy crops, industrial plants), aquatic (algae, herbaceous) and microorganisms (fungi, yeasts, bacteria), as well as organic waste and residues from agriculture, fish farming, forestry, municipal waste and other waste. His/her research may advance fibre production methods (eg refining wet grassland biomass into platform chemicals, packaging, fibre casting) energy production (eg peat biomass used for fuels & energy production or heating), biocatalysts (eg mushroom enzymes) and other applications. He/she may also offer lectures to the students enrolled in undergraduate courses in the university.

Responsibilities & Tasks

Research design and implementation; experimental work following research protocol; documentation, evaluation of the test results; Revision reccommendation to experimental methods based on observations of the data; preparation of reports and scientific publications; Project management; adaptation of machines; determination of material properties and process modelling.

Education

Master's degree in Biology, Biochemistry, Cellular Biology, Chemical Engineering, Environmental Engineering or related fields.

EQF

Level 6

Essential Skills

- **Planning and Testing**
- **Personal committment**
- **Cooperation**
- **Flexibility**
- **Openness for research methods**
- **Transdisciplinary cooperatin**
- **Knowledge transfer**
- **Independent working**
- **Obedience to follow clear instructions**
- **Critical analysis**

Gaps & Needs in Skills

- **Scipt based software**
- **Determine material properties (e.g. fiber, suspension, strength analysis)**
- **Data analysis**
- **Leading skills in collaborative research projects**

Job Title

Head of Education and Research: Sustainability and Circular Economy

Job Description

These professionals focus on developing and implementing educational programs and conducting research initiatives focused on sustainability and circular economy principles. Leading a team of educators and researchers, collaborating with internal and external stakeholders to promote sustainable practices and drive positive change. They have a focus on testing, monitoring (quality assurance), certification of products, training and further education, research and development as well as certification of management systems.

Responsibilities & Tasks

Develop educational programs and educational strategy; lead research initiatives; collaborate with internal and external stakeholders, including universities, research institutions, industry partners, and government agencies; foster collaboration and partnerships to enhance research and educational efforts; manage a team of educators, researchers, and support staff; conduct training and workshops to engage with diverse audiences to raise awareness and drive behaviour change; publish and disseminate findings; stay updated on industry trends; evaluate the effectiveness of educational programs and research initiatives and drive organizational sustainability.

Essential Skills

- **Strong economic mindset**
- **Communication**
- **Ability to abstract**
- **Leadership experience**
- **Openness for new topics**
- **Cooperative**
- **Teaching experience**
- **Interpersonal skills (to interact with students, educators and senior leadership teams)**
- **Cooperation mindset**

Education

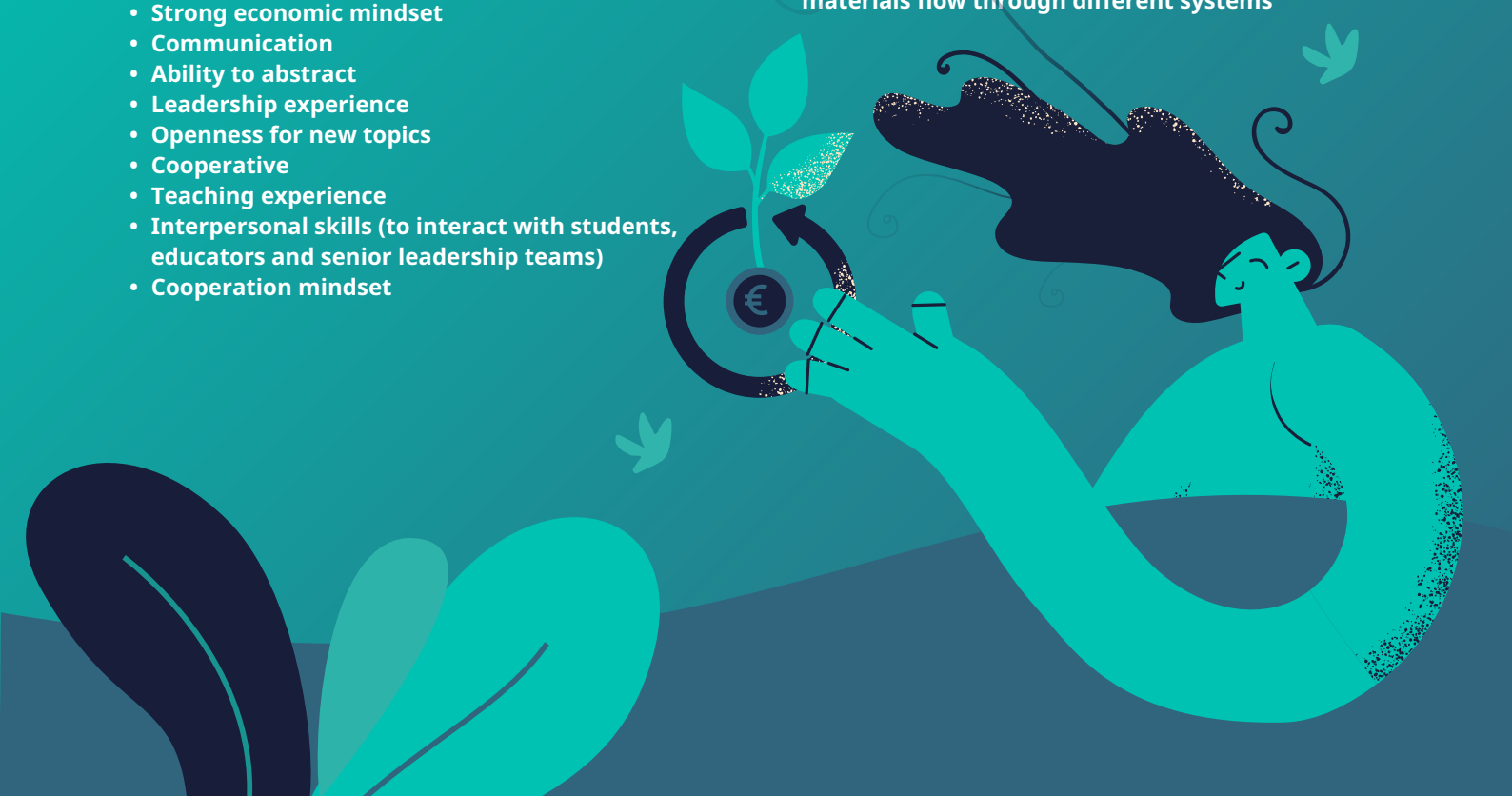
Completion of a university degree in economics, natural sciences or engineering is indispensable. Completed doctorate is desirable.

EQF

Level 7

Gaps & Needs in Skills

- **In-depth expertise and experience in the fields of sustainability and circular economy of plastics as well as related topics**
- **Digital literacy**
- **Deep understanding of how products and materials flow through different systems**



Job Title

Expert or researcher in Bioenergy/Bioeconomy

Job Description

These professionals conduct research activities, assist in data collection and analysis, and contribute to the development of innovative solutions in the bioenergy and bioeconomy sectors. While helping advance sustainable practices, optimize resource utilization, and promote the transition to a more environmentally friendly and circular economy.

Responsibilities & Tasks

Research support; data collection and analysis; Assist in conducting laboratory experiments, including sample preparation, instrument operation, and data recording and support fieldwork activities, such as sample collection, measurements, and data collection, as required; report writing and documentation; Evaluate and assess the feasibility, efficiency, and sustainability of bioenergy technologies and bioeconomy strategies; assist in project management tasks. Identify and screen new projects; Continuously update technical expertise in key areas (such as innovative value chain developments, agro-industry processing technologies, biomass, food loss/waste reduction etc); Contribute to knowledge exchange; Contribute to sector studies.

Education

Master's degree in industrial engineering, technology management, energy or environmental protection engineering, mechanical engineering or comparable courses of study.

EQF

Level 6

Essential Skills

- **Enthusiasm**
- **Problem identification**
- **Structured**
- **Independent**
- **Problem solving**
- **Task planning and Organising**

Gaps & Needs in Skills

- **Basic software (MS Office)**
- **Optimisation models**
- **Programming (languages, e.g. Python)**
- **Teaching**
- **Strategic thinking**
- **Project Management**
- **Laboratory equipment use**

Job Title

Biomass Producer & Mixed Farmer

Job Description

It's an intensely physical job related to livestock production and crop production using powerful farm machinery. Producers need to stay alert to avoid serious injury. The work schedule for this occupation features long hours, especially during growing seasons that require you to work sunrise to sunset.

Responsibilities & Tasks

Biomass Producers are responsible for all aspects of crop growing, such as seeding, feeding and reaping.
This includes the planning of crops according to market conditions, weather patterns, government subsidies and soil conditions. They also purchase all supplies and equipment necessary for success. One of the responsibilities is that they may have to repair farm machinery to make sure cultivation and harvest proceed smoothly, in addition to fixing things like fences, pipes or hoses. The business duties of this job also revolve around sales and maintaining accurate records of production, financial and employee records. Moreover, it includes management and control of the growing conditions, registration of seeds, fertilizer and pesticide use, soil health maintainance, erosion prevention and soil conservation practices. Within the field of animal production, farmer´s responsibilities include management and control of a daily regime of animals, their nutrition and reproduction. Provides hygiene and suitable living conditions for animals.

Essential Skills

- **Problem Solving**
- **Critical Thinking**
- **Task Planning and Organising**
- **Good physical health**
- **Stress tolerance**
- **Monitoring performance**
- **Working with others**
- **Quality control**

Education

Complete secondary vocational education, Vocational trainings / experiential learning.

EQF

Level 4

Gaps & Needs in Skills

- **Driving Specialist Vehicles**
- **Networking and Cooperation**
- **Local Bioeconomy Aspects**
- **Technical farming skills**

Job Title

Social Farmer

Job Description

Social Farmer is acknowledged as stand alone job profile, given that it refers to added social value attributed to ordinary agricultural production practices. Social Farming offers people who are socially, physically, mentally or intellectually disadvantaged the opportunity to spend time on a farm in a healthy, supportive and inclusive environment. Social farming could thus be provisionally defined as a cluster of activities that use agricultural resources – both animal and plant – to generate social services in rural or semi-rural areas, such as rehabilitation, therapy, sheltered jobs, lifelong learning and other activities contributing to social integration.

Responsibilities & Tasks

Provides agricultural production, but also offers and creates services, new jobs, educational activities and carries out different types of therapies for a wide range of people with specific needs. This represents an additional source of income for the social farmer as well as building his own labour capacity among disadvantaged and vulnerable groups.
The social Farmer executes the ordinary farming practices but is also resposible to create a safe and supportive environment taking into account the individuals abilities, desires and interests. Focus remains on encouraging participants to socialise, gain confidence and build relationships.

Education

Education in agricultural production and social studies.

EQF

Level 4

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Working with Others**
- **Stress Tolerance**
- **critical thinking**
- **Task planing and organising**
- **Aplication of crop and agronomy knowledge**
- **communication skills**
- **knowledge of the methodologie of social work**

Gaps & Needs in Skills

- **Networking and Cooperation**
- **Socioeconomic Development**
- **Ethical and Justice Aspects**
- **Sustainable Business Models**
- **Networking and Cooperation**

Job Title

Specialist for precision agriculture

Job Description

Manages plant cultivation based on data from technologies used for precision farming. More specifically, it includes the use of drones, sensors, soil sampling, GPS and GIS technologies to manage grower activities, which are used to optimize production and conserve resources.

Responsibilities & Tasks

Provides support and technical assistance to growers who are using precision technologies on their farms. Creates and implements plans for farmers to enhance the health of their fields based on the data from global positioning systems (GPS), drones, sensors, soil sampling and other precision machinery.

Education

Master's degree in agricultural engineering, agronomy, agricultural business or information technology (IT).

EQF Level 7

Essential Skills

- **Decision Making**
- **Computer Use**
- **Attention to Detail**
- **Monitoring Performance**
- **Procedures for the application of research results**
- **Application of crop and agronomy knowledge**
- **Working with Others**
- **Strategic thinking**

Gaps & Needs in Skills

- **Sensor Technologies**
- **Technical Farming Skills**
- **Data Literacy**
- **Command and monitoring of IoT elements**
- **Use of AI tools in agriculture**
- **Application and use of drones for selected processes in agriculture**

Job Title

Agricultural Scientist

Job Description

An agricultural scientist is a professional who applies scientific principles and knowledge to improve the agricultural industry. They work to develop new and more efficient farming practices, improve crop yields, and manage pests and diseases. They may work in research, development, or production roles, and may specialize in areas such as crop science, soil science, plant genetics, animal science, food science, and sustainable agriculture. Agricultural scientists play a critical role in the development of the agricultural industry and work to ensure that the world's growing population has access to safe and sustainable food sources.

Responsibilities & Tasks

The responsibilities of an agricultural scientist are conducting research, developing new crops and products, improving crop yields, managing pests and diseases, ensuring food safety, collaborating with industry and government, teaching and training. Agricultural scientists try to maintain a balance between the economic requirements of farmers and environmental conservation and management concerns.

Education

Degree in agricultural science, agribusiness or a related field. It may also be beneficial to obtain a master's or doctoral degree in agricultural science or a related field to some job opportunities.

EQF

Level 7

Essential Skills

- **Critical Thinking**
- **Finding Information**
- **Attention to Detail**
- **Analytical Thinking**
- **Processing Information**
- **Monitoring Performance**

Gaps & Needs in Skills

- **Networking and Cooperation**
- **Sustainable Business Models**
- **Local Bioeconomy Aspects**

Primary Production

Job Title

Landscape ecologist (geoecologist)

Job Description

Complex landscape assessment. Landscape Ecologist is an expert on both biophysical and socioeconomic sciences to explore basic and applied research on ecology, conservation, management, design/planning, and sustainability of landscapes as coupled human-environment systems. The Landscape ecologist analyses the relationship between ecological processes and spatial patterns and land use on different levels and scales. He/She is an expert studying the interaction between ecosystems and how these interactions affect ecological processes in the environment.

Responsibilities & Tasks

Some responsibilities and tasks are knowledge of the structure, properties, processes in the landscape and their dynamics and on the basis of socio-economic characteristics and phenomena, landscape ecologist carries out the determination of the potential of land use, the determination of the ecological carrying capacity of the landscape, the determination of the threat and load of the landscape. Interprets the landscape for the most optimal use for human activities and use of resources while minimizing ecological threats and preserving optimal structure and landscape intergrity. Last but not least, the Landscape Ecologist deals with the impact of humans on the diversity of the landscape in terms of spreading and developing new pathogens that can affect the ecosystem.

Education

Master´s/Engineer´s degree (in specialised natural sciences such as botany or forestry).

EQF

Level 7

Essential Skills

- **Problem Solving**
- **Critical Thinking**
- **Attention to Detail**
- **Analytical Thinking**
- **Monitoring Performance**
- **Elaboration and updating of concepts and programmes for environmental protection**
- **Orientation in applied ecology**
- **Landscape-ecological planning**

Gaps & Needs in Skills

- **Project Management**

Job Title

Adaptive Forestry manager (AFM)

Job Description

Engages at different stages of a forest care programme implementation.
Adaptive forest manager (AFM) is a specialist in minimizing the risks and impacts of climate change by reducing forest vulnerability. To address this challenge, quantitative information from several perspectives is needed. Silvicultural and ecophysiological field data, modelling studies, and remote sensing tools are crucial for AFM. Engages at different stages of a forest care programme implementation and also in sustainable management of timber production and the preservation and protection of trees and the forest environment.

Responsibilities & Tasks

Management consists of planning and implementing activities meant to ensure the conservation and utilization of a forest, according to objectives to be achieved (among which, wood production) under a given physical, and socio-economic context.Ensures not only the optimal use of forest resources, but also to fully use the capacity of the forestry for the protection of forest ecosystems from natural disasters at regional and international level in the forest area of the temperate zone of Europe.

Essential Skills

- **Decision Making**
- **Task Planning and Organising**
- **Working with Others**
- **Quality Control**
- **Monitoring Performance**

Education

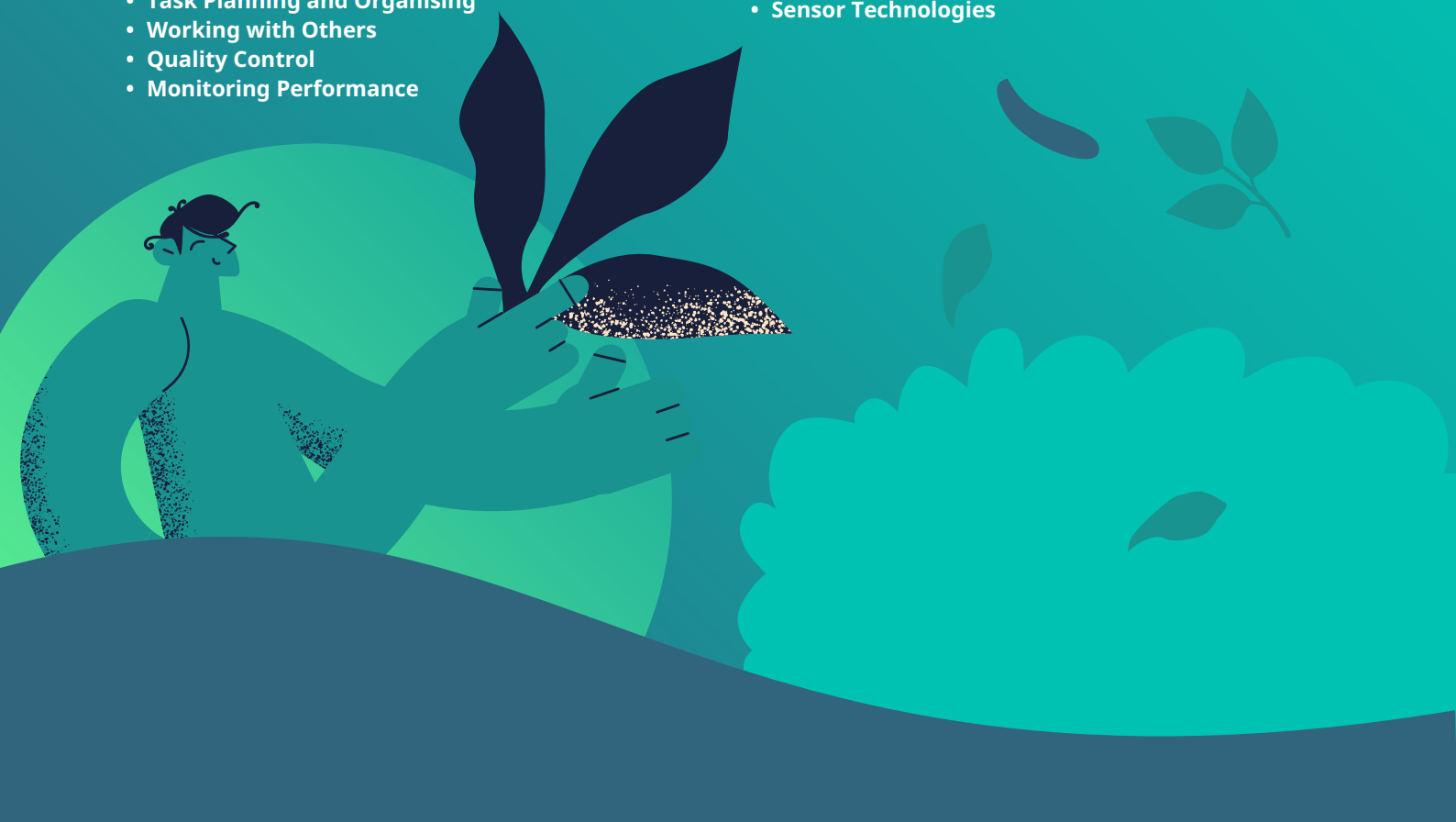
Master´s or Engineer´s degree or/and science degree in forestry or botany, with preference typically given to those with a forestry degree.

EQF

Level 6

Gaps & Needs in Skills

- **Project Management**
- **Local Bioeconomy Aspects**
- **Driving Specialist Vehicles**
- **Sensor Technologies**



Job Title

Environmental engineer

Job Description

An Environmental Engineer is a professional who specializes on protecting the environment by reducing waste and pollution and optimises the use of natural resources, help to develop renewable energy resources and maximise the use of existing materials. He/she is involved in the production of energy from renewable or sustainable sources of energy, such biofuels. Also involved in designing, developing, and building renewable energy technologies, caring out lab experiments and adapting them to large-scale industrial processes, keeping up to date legislation and environmental standards so to improve recycling, waste disposal, public health, and water and air pollution control.

Responsibilities & Tasks

Designing and overseeing the development of systems, processes and equipment for the control, management or improvement of water, air or soil quality; Providing environmental engineering assistance in network analysis, regulatory analysis, and database development planning or review; Obtaining, updating and managing plans, permits and standard operating procedures; Providing engineering and technical assistance in environmental cleanup projects and litigation, including design of cleanup systems and regulatory enforcement; Monitoring the implementation of plans for the improvement of environmental activities; Advising companies and government agencies on cleanup procedures for contaminated sites; Collaborating with environmental scientists, planners, hazardous waste technicians, engineers from other fields, and legal and business specialists to solve environmental problems.

Education

Bachelor's degree in engineering or environmental science, and then pursue additional training or certification in sustainable engineering practices.

EQF

Level 5

Essential Skills

- **Problem Solving**
- **Structured & systemic**
- **Working with Others**
- **Computer & Data literacy**
- **Technology awareness**
- **Legal and regulatory knowledge**
- **Independent**

Gaps & Needs in Skills

- **Relevant databases and tools**
- **Optimisation models**
- **Technical Design Skills**
- **Specific industrial technologies**
- **Data Literacy**

Job Title

Sustainability engineer

Job Description

A Sustainability engineer designs products and processes that drive material and energy efficiencies to minimize their environmental impact while cutting costs and improving the bottom line. By this engineering practice, ,manufacturers can minimize waste while maximizing the value they deliver. Today, consumers and investors alike are expressing tremendous interest in sustainability and in response, manufacturers are adopting sustainability initiatives into their product development strategies.

Responsibilities & Tasks

The responsibilities and tasks of a Sustainability Engineer vary depending on each area of specialization and the particular project that he/she is working on. However some common tasks can involve: conducting sustainability assessments, developing sustainable design solutions, designing and testing machinery, developing ways of improving existing, processes, converting, transmitting and supplying useful energy to meet needs for electricity, researching and developing ways to generate new energy, reduce emissions from fossil fuels and minimise environmental damage, implementing sustainable solutions, conducting research, providing engineering and technical assistance in environmental cleanup projects and litigation, including design of cleanup systems and regulatory enforcement and collaborating with environmental scientists, planners, hazardous waste technicians, engineers from other fields, and legal and business specialists to solve environmental problems

Essential Skills

- **Problem Solving**
- **Task Planning and Organising**
- **Working with Others**
- **Computer Use**
- **Technology awareness**
- **Independent**
- **Understanding of industrial operations and mashinery**
- **Structured and systemic**

Education

Bachelor and/or master's degree in engineering/mechatronics/electronics or industrial engineering.

EQF

Level 5

Gaps & Needs in Skills

- **Relevant databases and tools**
- **Optimisation models**
- **Specific industrial technologies**
- **Data Literacy**

Job Title

Bio-based Process Engineer

Job Description

The role of Process Engineer in the field of bio-based and green chemistry involves working with various biologically derived materials and sustainable chemical processes to develop and optimize production operations. Next to that, integrating bio-based approaches in established processes is a key element. This position requires a strong understanding of both engineering principles and environmentally friendly practices.

Responsibilities & Tasks

Process Optimization: Analyze and evaluate existing processes, identify areas for improvement, and implemen optimizations to enhance efficiency, yield, and sustainability.
Test, check and maintain equipment.
Contribute to the design process of new equipment.
Supervise the production process.
Improve product quality.
Develop protocols.
Support R&D department in process and product development.

Education

Bachelor's Degree University of Applied Sciences or engineering.

EQF

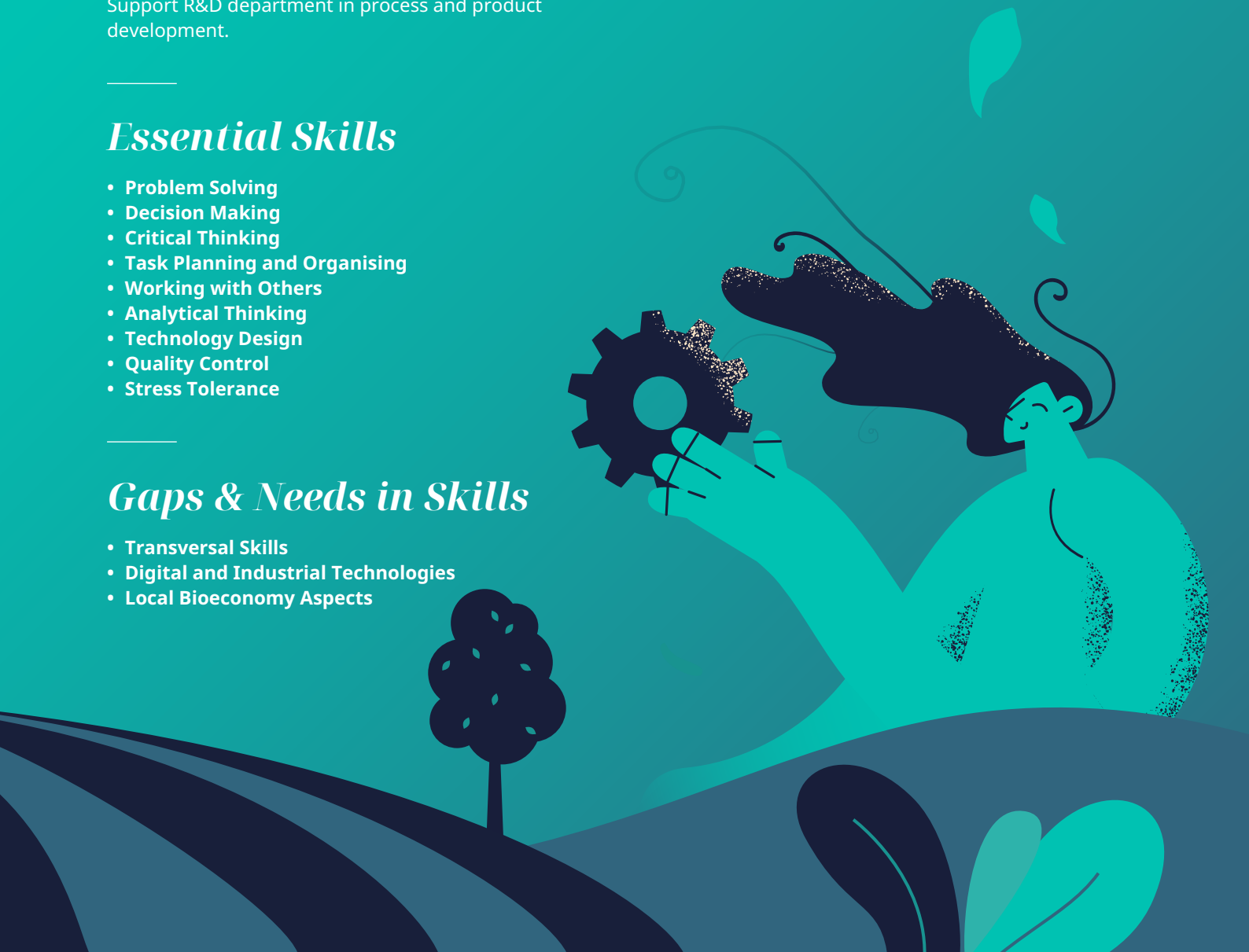
Level 6

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Critical Thinking**
- **Task Planning and Organising**
- **Working with Others**
- **Analytical Thinking**
- **Technology Design**
- **Quality Control**
- **Stress Tolerance**

Gaps & Needs in Skills

- **Transversal Skills**
- **Digital and Industrial Technologies**
- **Local Bioeconomy Aspects**



Job Title

Biotransformation Plant Operator

Job Description

Biotransformation Plant Operator hold a senior position for overseeing all operations at a production or manufacturing facility. Is responsible for managing the Biotransformation group and its activities,overseeing the production process itself, as well as providing Molecular Biology Subject Matter Expertise in strain engineering and/or protein engineering. May oversee people and machinery, scheduling, and quality control, among other duties and work in a variety of industries, including agriculture, manufacturing, energy production, biological systems and transportation. Also works in factories, warehouses, or other sites where manufacturing processes take place, in facilities that utilize machinery or processes, or may work in facilities that utilize manual labor.

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Critical Thinking**
- **Task Planning and Organising**
- **Working with Others**
- **Computer Use**
- **Analytical Thinking**
- **Processing Information**
- **Monitoring Performance**
- **Work Independently**

Responsibilities & Tasks

Biotransformation Plant Operators oversee and maintain equipment at power plants, chemical plants, oil refineries, and other establishments that handle industrial, nuclear, or chemical materials. They specialize in a specific piece of equipment or a particular part of the production or are required to monitor a number of processes. Some of their responsibilities are: Ensuring that safety and environmental rules and programs are strictly adhered to, conceptualizing and recommending plant improvement strategies, carrying out site inspections and audits, performing preventative and maintenance measures, training new hires and cross-training other staff members and also maintaining a clean, hazard-free work environment.

Education

Bachelor's degree.

EQF

Level 7

Gaps & Needs in Skills

- **Digital and Industrial Technologies**
- **Local Bioeconomy Aspects**
- **Data Literacy**

Job Title

Waste Management Specialist

Job Description

Waste Management Specialists typically is responsible for developing and implementing waste management plans that meet regulatory requirements and are cost-effective and coordinate comprehensive waste management systems that are designed to maximize waste prevention, reuse, and recycling opportunities.

Responsibilities & Tasks

A waste management specialist is responsible for analyzing waste streams, promoting waste reduction and recycling, managing waste collection and transportation, evaluating waste treatment and disposal options, ensuring regulatory compliance, developing and delivering training programs, monitoring and analyzing waste management data, playing a critical role in ensuring that waste is managed safely, efficiently, and in compliance with regulations.

Education

To become a waste management specialist, typically one needs to complete a bachelor's degree or master's degree in environmental engineering, environmental sciences, or a related field.

EQF

Level 7

Essential Skills

- **Problem Solving**
- **Task Planning and Organising**
- **Quality Control**
- **Monitoring Performance**

Gaps & Needs in Skills

- **Local Bioeconomy Aspects**
- **Project Management**

Job Title

Biofinery Manager

Job Description

Biofinery Manager is responsible for all aspects of plant operations including: health and safety, quality assurance, regulatory compliance, production, training, standard operating procedures, human resources, budget, maintenance, and facility management. Provides guidance, input and oversight to operations and maintenance activities by collaborating on solutions to biofuels production plant issues and ensures that production is efficient and effective. Also collaborates on the development of capital and operating budgets and are held accountable for delivering on-time, on-budget results and ensures that all levels of safety within the plant and the environmental conditions meet compliance standards at all times.

Responsibilities & Tasks

Some of responsibilities are: providing leadership, developing budget, identifing required maintenance of business and improvement, analyzing financial and operational data, developing policies and procedures, following standard operating procedures, ensuring compliance with codes, regulations and standards, maintain plant's record system, managing projects, coordinating contracted services, managing purchase orders, managing risk, seting organizational priorities, managing and protecting intellectual property. Also a Biofinery Manager establishes occupational health and safety and environmental committees, completes hazard assessment, develops operating procedures and protocols, ensures access to safety equipment, identifies and maintain human resource skill required, disciplines employees, implements quality standards procedures, tests &, developes plant production schedule, manages production waste, coordinates logistic, developes emergency response preparedness program.

Education

There are no specific educational requirements for BPMs though a Bachelor's degree in Engineering, Business Administration, or Science with specialization in Chemistry, Biotechnology, or Physics would be a recommended minimum. There are BPMs with Master's or Doctorate's degrees in these relevant, specialized fields. Additionally, BPMs should have an extensive track record with a minimum of 5 to 8 years' manufacturing management experience.

Essential Skills

- **Problem-solving**
- **Technology design**
- **task planning and organising**
- **Computer use**

Gaps & Needs in Skills

- **Local bioeconomy aspects**
- **Project management**
- **Networking and cooperation**

EQF Level 5

Job Title

Biorefinery Technician

Job Description

Biorefinery technicians are responsible for a range of duties related to the operation and maintenance of equipment used in the production of biofuels, bioplastics, and other bioproducts. Some common responsibilities of a biorefinery technician are operating and maintaining a variety of equipment used in the production of bioproducts, conducting quality control tests, troubleshooting and repairing equipment, monitoring production processes, maintaining accurate records of production data, quality control tests, and equipment maintenance. Biorefinery technician is supervised by Biorefinery Manager or a Plant operator.

Responsibilities & Tasks

Some common responsibilities and tasks of a biorefinery technician are equipment operation and maintenance (fermentation reactors, distillation units, centrifuges, pumps, and other specialized equipment); conducting quality control tests on raw materials, intermediate products, and finished products; closely monitoring production processes to ensure that they are running smoothly and that products are being produced according to specifications and identifying potential issues and taking corrective actions; record-keeping of production data, quality control tests, and equipment maintenance; cleaning and maintaining the equipment and production areas to ensure that they are in good working condition; and development and implementation of process improvements to increase production efficiency and reduce waste.

Education

Most biorefinery technician jobs require a minimum of a high school diploma or equivalent, and some may require a technical diploma, certificate, or a degree in a relevant field. Typical fields of study for these technicians include chemical technology, biotechnology, environmental science, chemistry etc.

EQF

Level 6

Essential Skills

- **Problem Solving**
- **Task Planning and Organising**
- **Quality Control**
- **Monitoring Performance**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Digital and Industrial Technologies**
- **Local Bioeconomy Aspects**

Job Title

Bio-based Process Operator C

Job Description

The role of Process Operator C in the field of bio-based and green chemistry involves working with and optimizing green and sustainable processes and machinery in an industrial setting. Next to that, integrating bio-based approaches in established processes is a key element. This position requires a strong understanding of both operational processes and environmentally friendly practices.

Responsibilities & Tasks

Some responsibilities are: Monitor production processes, directly at the installation and from the control room; Set up, adjust and convert machines; Perform quality measurements; Operate and monitor security protocols; Optimize process and output; Act appropriately in the event of malfunctions; Perform minor repairs; Administrative processing, checking and correcting data from the installations; Identify and report errors, environmental issues or other details; Report to those involved, including the manager; Clean installations and keep the workplace clean.

Education

Vocational Training.

EQF

Level 2-4

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Working with Others**
- **Analytical Thinking**
- **Stress Tolerance**

Gaps & Needs in Skills

- **Transversal Skills**
- **Digital and Industrial Technologies**
- **Local Bioeconomy Aspects**

Job Title

Advisor on social agriculture

Job Description

Provides information on social economy and support for enterprises focused on social agriculture and leadership in design, development, planning, implementation, and capacity-building for agriculture and food security. An Adviser on social Agriculture is also responsible to gather, review, report and make recommendations based on findings to help increase yields, improve efficiency and reduce losses and to deal with issues such as animal nutrition, pest control, disease control, harvesting practices, and much more.

Responsibilities & Tasks

Raises awareness of the social economy and agriculture, provides interested and potential social economy actors with information on social entrepreneurship in agriculture, provides information on the Social Economy and Social Enterprises Act, and provides guidance and the necessary assistance and support for the start-up of newly emerging social enterprises.

Education

Bachelor degree or higher qualification in social studies.

EQF

Level 6-8

Essential Skills

- **Finding Information**
- **Working with Others**
- **Processing Information**
- **Crop and agronomy knowledge**
- **Application of organic farming principles**
- **Legislation in the field of social entrepreneurship**
- **Orientation in funding schemes**

Gaps & Needs in Skills

- **Networking and Cooperation**
- **Socioeconomic Development**
- **Ethical and Justice AspectsTransformation and diversification of business acitivities in agriculture**
- **Working with the disadvantaged and vulnerable**

Job Title
Farming Advisor

Job Description

A farming advisor is an expert who provides advice to farmers on a wide range of topics, including agronomy, animal husbandry, environmental sustainability, and business management. Their primary goal is to enhance agricultural productivity, sustainability, and profitability while taking into account regulatory, environmental and economic considerations.

Responsibilities & Tasks

Advice on obligations at farm level resulting from the statutory management requirements and the standards for good agricultural and environmental land conditions .Advise on best practices for crop cultivation, including planting, fertilization, irrigation, and pest control. For livestock farming, offer guidance on animal husbandry, nutrition, and health management.
Promote agricultural practices beneficial for the climate and the environment and maintenance of the agricultural area, e.g., conservation measures, crop rotation, organic farming, and the use of plant protection products and pest management.
Recommend appropriate soil improvement techniques, efficient water management strategies, such as irrigation methods and drainage systems.
Advise on measures provided for in rural development programmes for farm modernisation, competitiveness building, sectorial integration, innovation and market orientation, as well as the promotion of entrepreneurship. This can include also promotion of farm conversion and diversification of their economic activity.

Essential Skills

- **Agronomic knowledge**
- **environmental awareness**
- **bussiness acumen**
- **problem solving**
- **Project management skills**
- **interpersonal skills**
- **Adaptability**
- **critical thinking**
- **Self-motivation**
- **Collaboration**
- **Communication**
- **Data Analysis**
- **Legal and regulatory Knowledge**

Education

Master's /Engineer's degree in sustainable agriculture related fields. Life long learning vocational training on biopesticides, bio fertilisers, etc

EQF

Level 6-7

Gaps & Needs in Skills

- **Cross-disciplinary understanding**
- **Market analysis**
- **Technological proficiency**
- **Sustainable and climate friendly practices in farming**
- **Sustainable Bussiness models**
- **Socioeconomic development**
- **Local Bioeconomy aspects**

Job Title

Bio-based Business & Production Consultant

Job Description

A Bio-based Business & Production Consultant is responsible for advising product-oriented businesses and organisations on the development and implementation of bio-based products and processes. These professionals have in-depth knowledge of the bio-based industry and can apply this knowledge effectively to improve the strategy and production processes of companies. This consultant may work closely with stakeholders across the public and private sectors to identify opportunities, build partnerships, and coordinate efforts to achieve a successful transition to bioeconomy which is in line with the organization's and (inter)national policies.

Responsibilities & Tasks

Some responsibilities and tasks of these professionals are to analyze the bio-based industry and market trends and advise companies on the implementation of bio-based processes, research technologies and suppliers, and prepare business cases and project plans to support the implementation of bio-based products and processes. And also, guide clients through the implementation of new bio-based products and processes and train employees, while identifying opportunities for collaboration and partnerships between companies and organisations in the bio-based sector and developing marketing and communication strategies to promote the benefits of bio-based products and processes.

Education

Minimum higher vocational education (HBO) with over 5 years of experience in the industry.

EQF

Level 6-7

Essential Skills

- **Problem Solving**
- **Critical Thinking**
- **Finding Information**
- **Working with Others**
- **Analytical Thinking**
- **Technology Design**

Gaps & Needs in Skills

- **Networking and Cooperation**
- **Digital and Industrial Technologies**
- **Sustainable Business Models**

Job Title

Consultant for the topic of Green Tech - Resource Efficiency, Bioeconomy

Job Description

Is a specialist in resource efficiency, green technology, and the bioeconomy. These professionals work closely with clients from various sectors to develop sustainable strategies, identify opportunities for resource optimization, and promote environmentally friendly practices. Their main objective is to help organisations to transition to a more sustainable and efficient strategy and future. This consultant contributes to the proactive maintenance and expansion of relevant Green Tech or bioeconomy networks in Europe as well as for the active support of scientists and companies in the preparation and development of new EU funding applications

Responsibilities & Tasks

Some responsibilities and tasks of these professionals are providing expert guidance to other professional and clients on resource efficiency, green technology adoption, and bioeconomy strategies; conducting assessments to evaluate where there's a need to improve resource efficiency; developing sustainable strategies; analysing data and use of it to provide the clients with improvement and develop actionable recommendations; provide training and education to clients and their employees on resource efficiency, green tech, and bioeconomy concepts; promote awareness and understanding of sustainable practices and their benefits and monitor progress of sustainability initiatives.

Education

Completed studies (diploma/master's degree program) in a scientific, technical or environmental degree program or completed studies in administrative sciences, administrative economics, political science, business administration.

EQF

Level 7

Essential Skills

- **Professional experience**
- **Working with Others**
- **Communication**
- **Analytical skills**
- **Above average motivation**
- **Project management**
- **Funding procedures**
- **Reliable conduct**
- **Conceptual thinking**
- **Independent working**
- **Written and oral expression skills**

Gaps & Needs in Skills

- **Environmental technology**
- **Resource efficiency**
- **Horizon Europe regulations**
- **Funding mechanisms**
- **IT skills**
- **Digital communication formats**

Job Title

Prefab Building Production Employee

Job Description

A Production worker in a Bio-based Prefab Building factory is responsible for the production of bio-based building materials and components. These professionals work in a team, following production schedules and quality standards to ensure the timely delivery of high-quality products. They are competent to also assemble the building parts.

Responsibilities & Tasks

Some responsibilities of these professionals are to operate and maintain production equipment, including saws, presses, and other machinery used in the production of bio-based building materials, read and interpret production schedules, work orders, and technical specifications ensuring that production processes are followed correctly, follow safety protocols and maintain a clean and organized work area, measure, cut, and shape bio-based building materials and assemble and fabricate biobased components using various techniques such as nailing, stapling, glueing, and drilling. Other tasks are performing quality control checks on finished products to ensure they meet technical specifications and quality standards and participating in process improvement initiatives, identifying opportunities to streamline production processes and improve quality.

Education

Vocational Training.

EQF

Level 2-4

Essential Skills

- **Working with Others**
- **Computer Use**
- **Attention to Detail**
- **Quality Control**
- **Stress Tolerance**
- **Ability to read technical drawings**
- **Equipment operation and maintainance skills**

Gaps & Needs in Skills

- **Logistics and Transport**
- **Digital and Industrial Technologies**

Consulting/Advisory

Job Title

Risk Assessor

Job Description

A business expert responsible for determining the potential consequences of performing a business action. Their duties include reading and analyzing financial data, creating visual models to represent possible outcomes and preparing reports about business decisions.

Responsibilities & Tasks

Risk Analysts use advanced analytical skills to calculate the risk of a financial decision and afterwards report the information to team members along with suggestions for reducing the risk.
They have the following specific responsibilities: Make recommendations to reduce risk, including diversification, portfolio investment and currency exchanges, Use analytical software to calculate the risk of a decision, consult with business decision-makers and understand their data needs, Evaluate business and finance records and determine the level of risk and create reports and anticipate the losses of certain business decisions.

Education

Bachelor's degree in business, accounting, finance or statistics is often a requirement to work as a Risk Assessor.

EQF

Level 7

Essential Skills

- **Decision Making**
- **Analytical Thinking**
- **Communication skills**

Gaps & Needs in Skills

- **Project Management**

Consulting/Advisory

Job Title

LCA Specialist

Job Description

A Life-Cycle Assessment (LCA) Specialist is responsible for analyzing the environmental impact of products, processes, and systems throughout their entire life cycle. This role involves conducting assessments, gathering data, and providing valuable insights to help organizations make informed decisions regarding sustainability, resource efficiency, and environmental responsibility.

Responsibilities & Tasks

Plan and execute comprehensive LCAs for various products, processes, or systems. Collect data on inputs, outputs, and environmental impacts across all life cycle stages (from raw material extraction to disposal).

Education

Bachelor's or Master's degree in Environmental Science, Sustainability, Engineering, or a related field.
LCA techniques and software tools (e.g., SimaPro, GaBi, OpenLCA).

Gaps & Needs in Skills

- **Life Cycle Analysis**
- **Environmental Impact Assessment (EIA) Integration**
- **Life Cycle Costing (LCC)**
- **Regulatory knowledge**
- **Circular Economy and Sustainable Design**
- **Climate Change and Carbon Accounting**
- **Project Management**
- **Data Literacy**

EQF

Level 6-7

Essential Skills

- **LCA methodology**
- **Interdisciplinary knowledge**
- **Statistical analysis**
- **Carbon accounting**
- **Regulatory knowledge**
- **Project management skills**
- **Environmental Impact Assessment (EIA) Integration**
- **Sustainability Reporting**
- **Researching**
- **Data collection and processing**
- **Analytical Thinking**
- **Critical Thinking**
- **Collaboration**
- **Self-motivation**
- **Accuracy and a methodical approach to work**

Job Title

Biostatistician

Job Description

Biostatistician is responsble to design research studies and analyze data related to human health, animals or plants, apply knowledge of statistics, science and mathematics to gather and analyze data to help researchers answer questions. A Biostatistician also collaborates and clearly communicates with staff, medical and scientific researchers in design, data collection, analysis and publication of study data, and provide overall statistical support, data processing, study design, and data analysis services. Main role is to compile an unbiased statistical analysis of data retrieved from clinical trials to assist investigators and researchers.

Responsibilities & Tasks

Provide support to a research study, conduct background research, address requirement for statistical analysis plan, documentation, support the collection of data, analyze finding, report findings, assess the final outputs, present results to the scientific community, apply project management leading practices, identify and protect intellectual property, comply with established policies, procedures and protocols.

Education

Master's degree in (bio-) statistics or public health is often required or recommended.

EQF

Level 6

Essential Skills

- **Decision Making**
- **Quality Control**
- **Processing Information**
- **Finding Information**
- **Computer Use**

Gaps & Needs in Skills

- **Sensor Technologies**
- **Logistics and Transport**
- **Data Literacy**

Job Title

Pharmacologist

Job Description

A Pharmacologist is a scientist who investigates how drugs and chemicals interact with biological systems. Main aim is to understand biodiversity, especially for medicines and their actions to enable their effectiveness and safety. A Pharmacologist carries out researches to aid drug discovery and development, determines how biological systems function with the aim of identifying how components of the subsystem can be targeted by drugs and/or chemicals for therapeutic gain. The main role includes improving the diagnosis, prevention and treatment of physiological diseases. A pharmacologist may carry out in vitro or in vivo research to predict what effect certain drugs might have on humans.

Responsibilities & Tasks

Identify potential research areas that also apply in bioeconomy, develop research hypothesis, develop the research plan for an initiative, execute, organize and support the research plan, analyze data and interpret results, report findings, develop and implement trial plan and protocol, monitor the trial, collect and review data, assess research / trial outcomes, present results, provide expert or advisory services.

Education

Advanced degree such as a Pharm.D. or a PhD in a relevant scientific field. Bachelor's degrees, including courses in sciences and mathematics, are required to enter pharmacology program.

EQF

Level 7

Essential Skills

- **Attention to Detail**
- **Critical Thinking**
- **Quality Control**
- **Finding Information**
- **Stress Tolerance**

Gaps & Needs in Skills

- **Project Management**
- **Data Literacy**

Job Title
Microbiologist

Job Description

Microbiologist is a biological scientist who implements research on microorganisms in order to understand how they affect our lives and how we can exploit them. This position needs to conduct research, document the findings, write reports and research papers, supervise laboratory staff and study microorganisms (microbes) to solve a range of problems affecting the environment, food and agriculture, human health, and climate.

Responsibilities & Tasks

Supervise and conduct research on various microbiological activities on a regular basis;
Maintain knowledge on various research methods and perform all manual operations on various supplies;
Develop and maintain validation in all protocols for various environmental controls;
Perform laboratory analysis on all materials after appropriate sterilization; Proficient in methods and practices of microbiological analysis; Great ability to prepare research papers and technical reports; Study various cultures of microorganisms in isolation according to standard inhibition and ensure control over moisture and temperature.

Education

Advanced degree in a relevant subject such as microbiology, biomedical sciences, or biology.

EQF

Level 7-8

Gaps & Needs in Skills

- **Data Literacy**
- **Error Management**

Essential Skills

- **Critical Thinking**
- **Analytical Thinking**
- **Self-motivation**
- **Accuracy and a methodical approach to work**

Job Title

Bioinformatician

Job Description

Bioinformaticians develop methods, standards, guidelines and documentation for the data management team of companies.
They work with and support the functions of data capture and analysis, laboratory automation, database mining, software development and scientific management systems.
Bioinformaticians use computational approaches to extract information from chemical, biological and ecological measurements, enabling them to analyze and interpret the experimental data. They are often involved in drug design and gene expression work by performing analysis on the data obtained. They collaborate with scientists, IT personnel, government agencies and executives.

Responsibilities & Tasks

Provide expertise in molecular biology, infer protein sequence structure and function, identify metabolic networks, create and modify bioinformatics software, design algorithms, create, maintain and administer database, perform statistical analysis, perform data mining, organize data, utilize data repositories, interact with clients, interpret search findings from data repositories, disseminate information, choose appropriate media for data representation, write technical report, demonstrate computational statistical and molecular biological proficiency.

Education

Bioinformaticians need to have an eclectic, multi-disciplinary background that blends biology, chemistry and biochemistry with mathematics and computer science. They should possess undergraduate or graduate-level degrees in computer science and/or applicable scientific fields such as biology, chemistry, and biochemistry, to work effectively in the biotechnology industry. This initial degree should be complemented by education or training in the secondary area of focus – a scientific field or computer science - as needed.

EQF

Level 6

Essential Skills

- **Problem Solving**
- **Finding Information**
- **Working with Others**
- **Computer Use**

Gaps & Needs in Skills

- **Sensor Technologies**
- **Digital and Industrial Technologies**
- **Project Management**

Job Title

Laboratory technician

Job Description

A Laboratory Technician plays a crucial role in supporting laboratory operations and conducting scientific experiments. Their responsibilities will include sample preparation, performing tests and analyses, maintaining laboratory equipment, and ensuring adherence to safety protocols. This position requires strong technical skills, attention to detail, and a commitment to maintaining accurate records and producing high-quality results.

Responsibilities & Tasks

Execution and documentation of laboratory analyses and sample preparation; test and analysis; data collection and recording; support in the preparation of the measurement results and the laboratory organisation, including the ordering of laboratory materials; equipment operation and maintenance; laboratory safety; quality control and assurance and record-keeping and documentation.

Education

Completed training as a laboratory technician, chemical laboratory assistant, biological technical assistant or in a comparable field.

EQF

Level 5

Essential Skills

- **Professional experience**
- **Communication**
- **Working with Others**
- **Independent working**
- **Structured working**
- **Interpersonal skills**

Gaps & Needs in Skills

- **Wet chemical and instrumental analysis of raw materials, in particular (X-ray) spectroscopy, ICP, HPLC**
- **Drivers license**
- **Implementation of complex laboratry protocols**
- **Basic software (MS Office)**
- **Preparation of biomass samples**

Job Title
Biotechnologist

Job Description

Biotechnologists use molecular biology techniques to understand and manipulate the genetic, chemical and physical components of living organisms. They study cells, tissues and organisms and identify practical applications for this knowledge, in order to design products and processes that enhance the quality of human life.
Food and agricultural biotechnologists can genetically modify plants to produce enzymes and preservatives for use in food and beverage products or to improve productivity and efficiency.
Environmental biotechnologists may convert plants into biofuels or plant-based bioplastics. Industrial biotechnologists may improve efficiency and reduce the environmental effects of industrial processes and medical biotechnologists may research and develop new drugs and treatments.

Responsibilities & Tasks

Biotechnologists have to design, implement and monitor research studies in a laboratory.
Some of the responsibilities and tasks of this professional are following regulatory and safety standards, respecting quality standards to ensure replicability and reproducibility of experiments, setting up and maintaining laboratory equipment and technologies necessary for experiments and also need to develop or learn new research procedures. They also need to collect and record the data from experiments and analyse and interpret results. Teamwork is a big part of this profession and they must be good science communicators to be able to present the results to staff, peers and the wider public as well as be able to write scientific reports and review scientific publications of other research teams and communicate through channels such as websites, social media, press releases, interviews etc.

Education

Bachelor of Science Degree is required (e.g. in Biochemistry and Molecular Biology, Biotechnology, Cell and Developmental Biology, Computational Biology, Ecology and Evolutionary Biology, Genetics, Marine Biology, Plant Science, Zoology...). A postgraduate qualification may be required: Master Degree is important to become expert in a specific field (e.g. environmental, agricultural, industrial, medical, pharmaceutical, marine). PhD is important to gain research, technical and practical skills.

EQF

Level 6-8

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Critical Thinking**
- **Task Planning and Organising**
- **Finding Information**
- **Working with Others**
- **Computer Use**
- **Attention to Detail**
- **Analytical Thinking**
- **Technology Design**
- **Quality Control**
- **Processing Information**
- **Monitoring Performance**
- **Stress Tolerance**
- **Investigative mind**
- **Management skills and time management**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Project Management**
- **Communication**
- **Public speaking**

Job Title

Bioeconomy Science Communicator

Job Description

Bioeconomy communication is universally recognized as a critical element to boost the transition towards a more sustainable future. The science communicator, specialising in the bioeconomy, raises awareness and promotes knowledge and education about bioeconomy and bio-based products. Depending on the target audience, the communication can be more general or specific (e.g. business models, finance, stakeholder engagement, etc.). The science communicator can also play a role in engaging and mobilising stakeholders in events and workshops aiming at addressing barriers and enabling opportunities for the bioeconomy and bio-based economy uptake.

Responsibilities & Tasks

This figure bridges communication capacities with extensive knowledge of the topic addressed. The responsibility may vary depending on the type of communication and target audiences. The science communicator is in general a creative person that designs and implements formats to effectively reach the intended target audiences.

Education

Bachelor's degree in Communication. Additional training or certifications with respect to bioeconomy and bio-based economy. Systemic knowledge about the topic is also needed and actually, there are very few Academic curricula addressing bioeconomy. Alternatively, the science communicator could have a bachelor's degree in a technical domain (e.g. biotechnology), complemented by studies in communication

EQF

Level 7

Essential Skills

- **Problem Solving**
- **Critical Thinking**
- **Task Planning and Organising**
- **Finding Information**
- **Working with Others**
- **Systemic knowledge of the bioeconomy**
- **Analytical Thinking**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Sustainable Business Models**
- **Socioeconomic Development**
- **Local Bioeconomy Aspects**
- **Project Management**
- **Communication**
- **Public speaking**

Job Title

Bioeconomy Multi-stakeholder Dialogue Facilitator

Job Description

Bioeconomy Multi-stakeholder Dialogue Facilitator is a job profile that will become increasingly important in the future, to make sure flow of information and ideas within different sectors, fields and stakeholders is achieved in a smooth and transparent way. The Facilitator recognises the importance of achieving equity and accountability in communication between stakeholders and gets involved in multilateral interactions to enhance levels of trust, discussion and collective problem solving amongst different stakeholder groups or individuals. Also provides tailored consultancy to the above-mentioned stakeholders, analyzing the current processes and suggesting ad hoc solutions to be adopted To improve the overall sustainability, the facilitator should promote system thinking to move the gourp of stakeholders from observing events or data, to identifying patterns of behavior and to surfacing the underlying structures that drive those patterns.

Responsibilities & Tasks

Bioeconomy Mutli-stakeholder Dialogue Facilitator need to have the skill of holistic thinking (system thinking), which involves considering the whole over the parts and the capacity to identify and work with all possible stakeholders who might have insight or who might be affected, positively or negatively, by the proposed changes (in the education and training programmes and ecosystems). Also is an external figure providing consultancy in the following topics:

- awareness on circular bio-based processes
- specific knowledge to improve the value chain's sustainability
- specific solutions and processes to implement the changes
- assessment and measurement methodology
- capacities and skills needed

The facilitator also needs to "think critically" in order to welcome a variety of stakeholder and citizen viewpoints and account for them in designing new programs/action plans or tasks, Then he/she needs to communicate these decisions to all involved stakeholders or reproduce the results to other workshops or trainings to create a multiplier effect.

Essential Skills

- **Task Planning and Organising**
- **Working with Others**
- **Processing Information**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Socioeconomic Development**
- **Ethical and Justice Aspects**

Education

Bachelor's Degree in business administration, social sciences, or a scientific field.

EQF

Level 6-8

Job Title

Social Innovation and Social Impact Manager

Job Description

Social Innovation and Social Impact Manager refers to the design and implementation of new solutions that imply conceptual, process, product, or organisational change, which ultimately aim to improve the welfare and wellbeing of individuals and communities. The Social Innovation and Social Impact Manager creates meaningful social change and impact that is regarded as crucial to tackle societal problems while creating value for the organisations and businesses. He/she could undertake the role of the social impact designer to proactively manage and maximize the positive social and environmental impact of a business, nonprofit, or organization. Also helps to design strategic programs/projects/action plans to enable innovation for equity, social justice and inclusion (in bioeconomy education), also denoted as Equity by Design and to provide guidance and oversight for the structured identification and management of social risk across the business (both risks to stakeholders and risks to the company) including critical control tracking and reporting.

Responsibilities & Tasks

Involves in designing projects or programmes, while setting goals and targets for impact, implementing strategies to achieve those goals, and regularly measuring and reporting progress, organises regular meetings with target beneficiaries and strong qualitative and quantitative research skills to collect data from stakeholders to measure impact in a continuous and iterative way. In the case that the set targets are not met in terms of impact on the communities and society, the social innovation and impact manager will need to identify the gaps and necessary changes that can be made in the design of the programmes to reevaluate and revise necessary actions.

Essential Skills

- **Task Planning and Organising**
- **Working with Others**
- **Analytical Thinking**

Gaps & Needs in Skills

- **Transversal Skills**
- **Sustainable Business Models**
- **Socioeconomic Development**
- **Project Management**

Education

Bachelor's Degree in business administration, social sciences, or a scientific field.

EQF

Level 7-8

Job Title

Environmental, Social, and Governance Expert

Job Description

The content of work of these professionals is to bring to life and manage sustainability projects based on comany´s ESG strategy. It involves mappingband analyzing the internal processes of the plant's operation, give an assessment and plan actions for making operations more sustainable, participatebin various field projects and work closely with the head of the quality and with other engineers in the field of sustainability to meet EPD (Environmental Production Declaration) of the production. One of the roles of this professional is supporting reports of the manager of the quality area in the field of sustainability preparation and participate in the preparation of the factory budget, giving input about the needs of sustainability activities. In addition, theses professionals provide technical support for the work and sales, also to product engineers.

Responsibilities & Tasks

A sustainability expert has a leading role in the company in the strategic planning of ESG activities, in achieving the goals of sustainable development and climate neutrality, in the preparation of sustainability reports and in the development of new business models, and in the provision of sustainable products and services on the long-term towards interests of customers.

Education

Bachelor and/or master's degree in environmental sciences and/or economics and/or industrial engineering, technology management, energy or environmental protection engineering, or comparable courses of study.

EQF

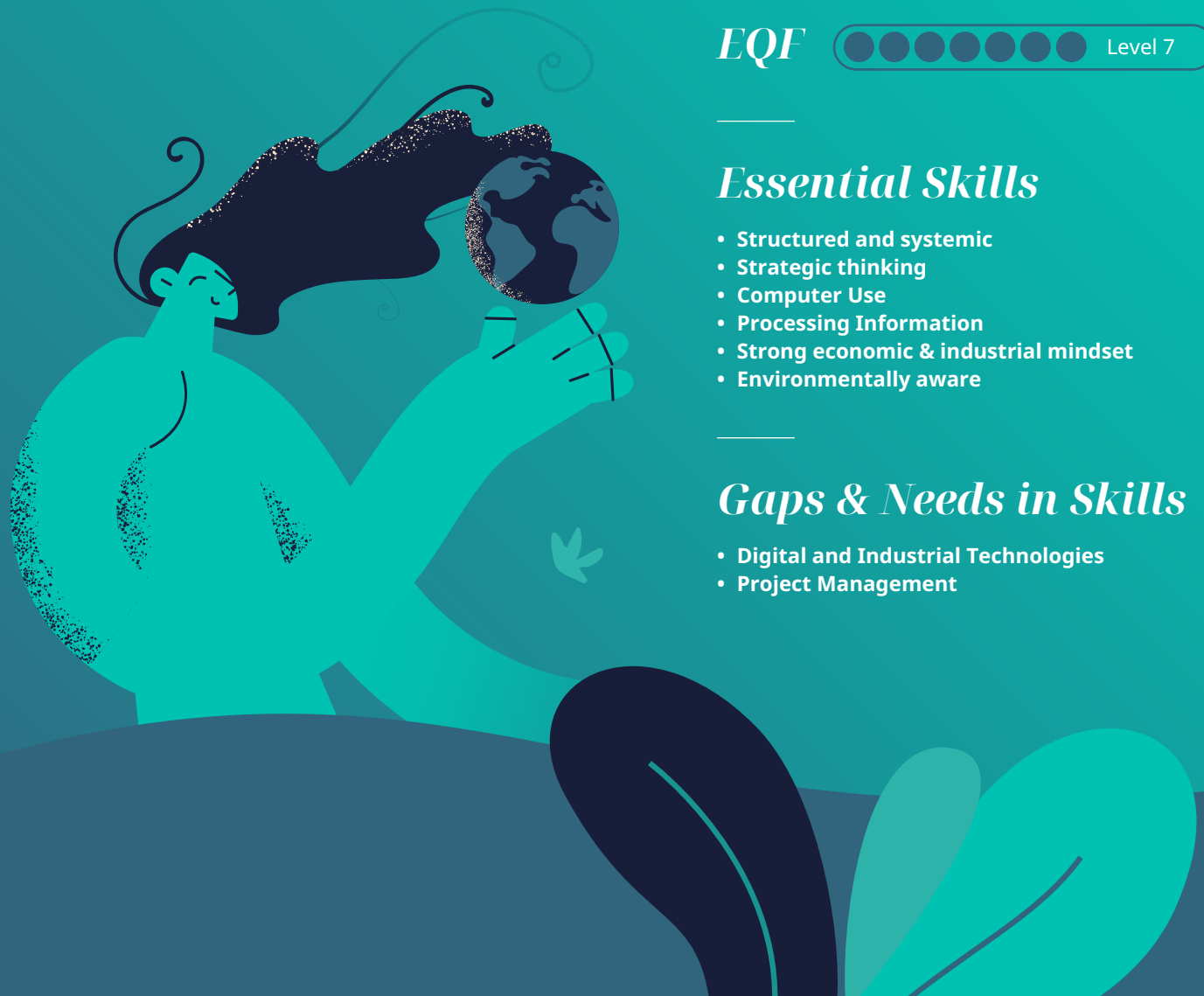
Level 7

Essential Skills

- **Structured and systemic**
- **Strategic thinking**
- **Computer Use**
- **Processing Information**
- **Strong economic & industrial mindset**
- **Environmentally aware**

Gaps & Needs in Skills

- **Digital and Industrial Technologies**
- **Project Management**



Job Title

Biobased Products Artist & Fashion Designer

Job Description

Biobased Artists and Fashion designers sketch designs of biobased products (commercial or industrial goods -other than food or feed- composed in whole or in a significant part of biological products, forestry materials, or renewable domestic agricultural materials, including plant, animal, or marine materials) clothing, footwear, and accessories. Fashion designers create original clothing, accessories, and footwear. They sketch designs, select fabrics and patterns, and give instructions on how to make the products they design.

Responsibilities & Tasks

Study fashion trends and anticipate designs that will appeal to consumers, decide on a theme for a collection, use computer-aided design (CAD) programs to create designs, visit manufacturers or trade shows to get samples of fabric, select fabrics, embellishments, colours or a style for each garment or accessory, they work with other designers or team members to create prototype designs, present design ideas to creative directors or showcase their ideas in fashion or trade shows, market designs to clothing retailers or to consumers, oversee the final production of their designs.

Education

Typically need a bachelor's degree to enter the occupation. Employers may prefer to hire creative candidates who have technical knowledge of the production processes for clothing, accessories, or footwear.

EQF

Level 6

Essential Skills

- **Task Planning and Organising**
- **Working with Others**
- **Computer Use**
- **Attention to Detail**
- **Technology Design**
- **Quality Control**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Digital and Industrial Technologies**

Job Title

Sustainable architect and designer

Job Description

Sustainable architects and designers are challenged to produce smart designs to ensure healthy living environments while aiming to minimise negative environmental impacts, energy consumption, and the use of human resources. This can be achieved through the implementation of green technologies, the recycling of materials and the use of renewable energy sources.
Bio-architecture and bio-design are part of an emerging movement, whose aim is to incorporate the use of living materials, such as fungi, algae, yeast, bacteria, and cultured tissue for construction and design applications. These professionals essentially cross traditional art-design-science boundaries in order to create new architecture/design solutions and technologies.

Education

Bachelor's degree in Architecture or Design Additional trainings or certifications in sustainable architecture and design practices. This is tipically achieved through Post Graduate programmes, with the aim of acquiring specific knowledge for the application of sustainable architecture and design principles (e.g. green building management, sustainable and net-zero materials, circular economy, etc).
Additionally, bio-architects and bio-designers also need to acquire specific knowledge on emerging design practices for the integration of living organisms as material sources, as well as to achieve the capability to understand the fundamentals of living biological systems and bioprocesses.

EQF Level 7-8

Responsibilities & Tasks

Sustainable architects and designers have the responsibility to recognise the existing natural resources and environmental conditions and incorporate these factors in their practice to ensure a delicate balance between a building/design piece's form, aesthetics, function and interactions with the surrounding environment. This is reflected in the choice of materials, construction methods, resource use and design in general. They must also facilitate sustainable operation during the building or product's life cycle, with the mindset of achieving long-term energy, and resource efficiency and considering appropriate end-of-life options.
In the more specific framework of bio-architecture and bio-design, the aim is also to create constructions and products whose properties are enhanced as a result of the implementation of biomaterials.

Essential Skills

- **Problem Solving**
- **Decision Making**
- **Critical Thinking**
- **Task Planning and Organising**
- **Finding Information**
- **Working with Others**
- **Computer Use**
- **Attention to Detail**
- **Technology Design**
- **Quality Control**
- **Processing Information**
- **Monitoring Performance**
- **Design thinking**

Gaps & Needs in Skills

- **Transversal Skills**
- **Networking and Cooperation**
- **Digital and Industrial Technologies**
- **Sustainable Business Models**
- **Socioeconomic Development**
- **Local Bioeconomy Aspects**
- **Project Management**
- **Data Literacy**

BioGov.net

Governance & Upskilling for a
Stronger Bioeconomy

Consortium

CIVITTA · Q-PLAN INTERNATIONAL · LOBA · PEDAL CONSULTING · FVA NEW MEDIA RESEARCH

ZVT Agricultural Research, Ltd. Troubsko · MNEXT MATERIALS & ENERGY X TRANSITION · btg biomass technology group · WILA Bonn

Funded by
the European Union

info@biogov.net www.biogov.net