Notes on using the matrix (Glossary)

The competence matrix for the field of Building Service Engineering is the result of a pan-European empirical study of operational practice.

	Sustainable Development Fields in VET	STEPS OF COMPETENCE DEVELOPMENT		
LEVEL OF COMPLEXITY	**Recycling awareness:** enables students to identify recyclable materials, understand the importance of recycling and act to facilitate the process of waste separation and reuse.	He/She understands the importance of recycling and can identify recyclable materials in everyday tasks.	He/She implements recycling practices in their work environment, ensuring the correct separation of waste and promoting its reuse within their work area.	He/She develops and optimises recycling systems at an organisational level, creating protocols that maximise the reuse of materials and minimise the environmental impact of maintenance projects.
	Awareness on material and energy use: involves recognising the impact that the use of materials and energy has on the environment, enabling He/She to understand the importance of optimising the use of these resources.	He/She recognises the basic impact of material and energy use on the environment and follows simple practices to minimise waste.	He/She evaluates and selects material and energy saving practices, adapting them to optimise resources in different projects.	He/She designs and implements efficient material and energy management strategies at the organisational level, promoting a culture of sustainability.
	Energy conservation: competence related to the identification and application of practices to reduce energy consumption, with the aim of reducing environmental impact and associated costs.	He/She identifies basic actions for the reduction of energy consumption in specific activities.	He/She applies energy conservation strategies in his/her working environment, analysing consumption and proposing improvements.	He/She leads the implementation of energy conservation systems, developing initiatives that optimise consumption in installations and maintenance processes.
	Compliance with environmental regulations: enables He/She to know, apply and guarantee compliance with the rules and regulations related to the care of the environment in their work activities.	He/She understands and follows basic environmental regulations applicable to his/her daily activities.	He/She manages compliance with environmental regulations, supervising that each procedure complies with the established regulations.	He/She designs and promotes environmental policies that ensure regulatory compliance and foster continuous improvements in the sustainability of large-scale projects.
	Material saving instructions: follow and apply instructions aimed at reducing the unnecessary use of materials, promoting responsible and efficient use of available resources.	He/She follows guidelines for the efficient use of materials, avoiding unnecessary waste in their tasks.	He/She optimises the use of materials through specific instructions and adjusts working practices to minimise consumption.	He/She develops best practice guidelines on material savings, training others in their application to maximise the use of resources.
	Instructions on energy and material usage: focuses on He/She being able to follow and provide clear instructions for the efficient use of energy and materials in various tasks and processes.	He/She follows basic instructions to use energy and materials efficiently.	He/She adapts and optimises instructions for efficient use in different work contexts, seeking to improve energy and material performance in each project.	He/She establishes and communicates detailed guidelines for the efficient use of resources in the organisation, contributing to a significant reduction in consumption.
	Energy efficiency practices: involves the knowledge and application of techniques to reduce energy consumption, promoting practices that optimise efficiency and reduce waste.	He/She follows simple practices to reduce energy consumption in their work area.	He/She identifies opportunities to improve energy efficiency in projects and implements them in his/her work.	He/She develops and implements integrated systems for the efficient use of energy, generating plans that promote sustainable practices in the organisation.

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LEVEL OF COMPLEXITY	**Hazardous waste management:** allows the identification, classification and safe handling of hazardous waste, complying with established regulations and minimising risks to health and the environment.	He/She identifies and classifies hazardous waste, following handling procedures under supervision.	He/She manages hazardous waste according to regulations, ensuring its safe handling and environmental protection.	He/She develops and implements hazardous waste management programmes, minimising risks and ensuring compliance with safety and sustainability standards.
	Use of durable materials: select and apply long-lasting materials in the development of projects, considering aspects of sustainability and efficiency to maximise the life cycle of products.	He/She uses durable materials when instructed to do so, understanding their benefit for maintenance.	He/She selects durable materials in their projects, assessing their impact on sustainability and maintenance efficiency.	He/She leads the implementation of policies for the use of durable materials, optimising selection to prolong the life of materials and reduce environmental impact.
	Reduction of travel and fuel consumption: the ability to plan and implement measures to minimise unnecessary travel andfuel consumption in order to reduce costs and environmental impact.	He/She plans tasks to avoid unnecessary journeys, reducing fuel consumption.	He/She implements measures to optimise journeys and reduce fuel consumption, promoting efficient logistics.	He/She develops and coordinates strategies for the reduction of travel in projects, integrating technological solutions that optimise the use of resources and minimise the carbon footprint.
	Selection of renewable energy sources: identify and evaluate different renewable energy sources, and select those that are suitable for application in different contexts, promoting sustainability.	He/She recognises renewable energy sources and their applicability in simple maintenance tasks.	He/She evaluates and applies renewable energy sources in projects, selecting those that optimise consumption and promote sustainability.	He/She designs and promotes the use of renewable energy sources, establishing selection criteria that foster the energy transition in the organisation.
	Recycling procedures for equipment and materials: follow, establish and improve procedures for the recycling of equipment and materials, seeking to optimise the use of resources and minimise waste.	He/She follows recycling procedures for equipment and materials, contributing to responsible management.	He/She optimises recycling procedures in their work area, seeking to maximise the use of resources and minimise waste.	He/She develops and implements advanced recycling systems, monitoring compliance and evaluating continuous improvements for project sustainability.
	Responsible and sustainable purchasing: selection of products and services based on sustainability criteria, with the aim of minimising environmental impact and supporting responsible consumption.	He/She understands the importance of buying sustainable products in their daily activities.	He/She selects products and services based on sustainability criteria in their maintenance projects.	He/She develops sustainable purchasing policies, optimising the selection of products and services with a lower environmental and social impact.
	Interdisciplinary collaboration: working effectively in multidisciplinary teams, collaborating with professionals from different areas to achieve common goals related to sustainability and environmental improvement.	He/She works with others on basic tasks, understanding the importance of collaboration to achieve sustainable goals.	He/She coordinates and works in multidisciplinary teams to apply sustainable practices in maintenance projects.	He/She leads interdisciplinary teams in complex projects, facilitating the integration of innovative and sustainable solutions.
	Promotion of sustainable solutions for clients: identifying and recommending sustainable products and solutions to clients, highlighting their environmental benefits and long-term advantages.	He/She can recommend sustainable solutions to simple tasks, highlighting their importance.	He/She advises customers on sustainable products, explaining their benefits and promoting their adoption.	He/She develops strategies for the promotion of sustainable solutions, guiding clients towards practices with less environmental impact.

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	Sustainable Development Fields in VET	STEPS OF COMPETENCE DEVELOPMENT		
LEVEL OF COMPLEXITY	**Assessment of ecological criteria in supply chain:** involves assessing and selecting suppliers or processes in the supply chain according to their environmental impact, promoting ecological criteria for the improvement of sustainability.	He/She recognises the importance of ecological criteria in the selection of suppliers.	He/She applies basic ecological criteria in the evaluation of suppliers, selecting sustainable options.	He/She establishes policies for the ecological assessment of the supply chain, promoting sustainability at all stages of sourcing.
	Evaluation of energy alternatives and cost reduction: analyse different energy alternatives, assess their feasibility and efficiency, and develop recommendations for cost reduction and improved environmental performance.	He/She identifies energy alternatives that can reduce costs and optimise consumption.	He/She evaluates and selects appropriate energy alternatives to reduce costs and improve environmental performance in their tasks.	He/She develops and implements strategic plans for the reduction of energy costs, leading the use of alternative energies in complex projects.
	Training in efficient resource use: the ability to train others in the efficient use of resources, designing training programmes and applying techniques to promote sustainable practices in various work contexts.	He/She participates in training sessions on the efficient use of resources in maintenance.	He/She trains their peers in the efficient use of resources, promoting sustainable practices in their area of work.	He/She designs and leads training programmes to foster a culture of sustainability in the organisation, training in the efficient use of resources.

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