Summary of D2.2: "Research Report on the Micro-Credential Solutions to Boost the Green Skills Match for Industry"

The Research Report on the Micro-Credential Solutions to Boost the Green Skills Match for Industry (D2.2) represented a key step in the development of the MASTERY approach to green skills micro-credentials. Building on the preliminary research activities carried out within WP2, the report presented the skills required to support the green transition across the project's target sectors and examined how these skills could be effectively translated into flexible and quality-oriented micro-credential learning opportunities.

The deliverable was structured around two complementary areas of investigation. The first focused on identifying and analysing the main green skills and competences emerging from the scientific literature, European policy documents and existing skills frameworks, including GreenComp, the ESCO framework, relevant CEDEFOP analyses and sector-specific studies. This analysis provided an initial mapping of the skills most relevant to the agri-food, construction, manufacturing, wood and furniture sectors, as well as transversal competences (including soft and digital skills) applicable across different industries.

The second area focused on understanding how these skills could be effectively addressed through micro-credentials, considering the perspectives and needs of companies, VET providers, public authorities and other labour-market stakeholders. The research design therefore combined desk analysis with the direct involvement of stakeholders from Italy, Bulgaria, Finland and Spain, as well as representatives from transnational networks active in the field of the Circular Economy. Stakeholders represented a range of sectors and labour-market systems and contributed to the review of literature and policy through surveys, interviews and thematic workshops.

This combination made it possible to compare the skills emerging from the literature with the competences actually required by organisations and workers undergoing the green transition. At the same time, the stakeholder activities provided insights into the main requirements for the effective design, delivery and recognition of micro-credentials.

The analysis resulted in the identification of 12 priority macro-categories of green skills. These covered both sector-specific competences, such as sustainable resource management in the agri-food sector, environmentally friendly construction materials, energy- and resource-efficient manufacturing systems and cradle-to-cradle design in the wood and furniture sector, and transversal competences related to waste reduction, sustainability reporting, environmental compliance, sustainable procurement, sustainability education, joint sustainability initiatives and sustainable investment.

The resulting skills framework, aligned with the T-shaped competence approach promoted by CEDEFOP, provided a common reference for the subsequent development of the MASTERY training offer, even if it was later adapted to the needs of the business and workers involved in the piloting phase of the courses. The report also examines micro-credentials in greater depth, identifying their main characteristics and methodological quality requirements.

The research highlighted the importance of clearly defining learners and learning outcomes, ensuring alignment with European and national policy frameworks, establishing appropriate assessment mechanisms, and providing transparent information on duration, delivery modalities and certification. These elements were considered essential to strengthen the credibility, comparability and recognition of micro-credentials in a rapidly expanding learning environment. The findings also highlighted the importance of ensuring a strong connection between labour-market demand and training provision. Micro-credentials were therefore considered not as substitutes for existing education and vocational training pathways, but as complementary and flexible learning opportunities capable of responding to rapidly changing competence requirements.

In particular, their potential to support targeted upskilling and reskilling was considered highly relevant for workers who need to acquire specific green competences without undertaking a full qualification pathway.
On this basis, D2.2 provided the conceptual and methodological foundation for the development of the MASTERY micro-credential system, serving as a bridge between the identification of emerging green skills and their translation into concrete learning solutions. The deliverable provided the evidence, skills framework and replicable methodological principles needed to enrich existing training courses with sector-specific, transversal, soft and digital competences related to the green transition, through a multi-actor co-creation pathway focused on quality and vocational excellence.

In this way, the deliverable contributed directly to the overall project objective of improving the match between evolving green skills demand and education and training provision, supporting flexible lifelong learning opportunities for workers and strengthening the capacity of VET systems to respond to the green transition.

Link to the full deliverable:
https://mastery-microcredentials.eu/wp-content/uploads/MASTERY_Research_Report_D2.2_compressed.pdf