



A.4.2 Career Guidance 4.0 Training

Empowering VET, Career Guidance, VET and Social Inclusion Professionals for the next-generation Career Guidance provision

Training Curriculum

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Introduction

In the rapidly evolving landscape of work shaped by digital transformation, globalization, sustainability needs and socio-economic shifts, the role of career guidance has become more critical—and complex—than ever before. Traditional approaches to career support are no longer sufficient to address the dynamic realities of Fourth Industrial Revolution (Industry 4.0), where automation, artificial intelligence, and non-standard employment models are reshaping industries and individual career paths alike.

To remain relevant and effective, **VET trainers, career guidance practitioners, and social inclusion professionals** must be equipped with updated competencies to support individuals in new career navigation challenges. At the same time, the provision of career guidance is being redefined within a rapidly transforming landscape, contributing to the emergence of a novel Career Guidance 4.0 approach.

The Careers 4.0 project seeks to **enable career guidance and planning in the digitization era, preparing education and career professionals** as well as the end users to be able to cope with the management of change, the achievement of career adaptability and resilience and lifelong career development within the disruptive changes and transitions in the world of education and work, in the digital transformation era. The overall purpose of the project will be achieved through the development of tailor-made career guidance material, training and information resources, to serve as capacity building tools for first line professionals to help diverse clients with multiple job transitions to new jobs and new forms of work available (e.g. teleworking, platform economy, crowd work) and will feature new, emerging and flexible career pathways, enabled by automation, digitalisation, green transition etc. in different sectors and occupations, enhancing the inclusiveness of VET, work environments and diversity of the workforce.

Fostering professionals' competences and knowledge on dealing with new labour market trends and skills demands, it is a prerequisite so as to increase the responsiveness of education, VET and employment domains. Within the context of "Work package n°4 a Career Guidance 4.0 training program and new adapted career guidance 4.0 methodologies and practices for career practitioners is developed. The aim is to enable VET trainers, career and social inclusion practitioners to offer tailor-made services to youngsters and workers, according to the latest labour market trends and new adapted information and guidance methodologies and practices.

In this context, the Career Guidance Provision 4.0 Competence Profile defines the minimum qualification criteria, learning outcomes and certification processes for training, career and social inclusion professionals, feeding a relevant training curriculum. This provides the basis for a learning outcome based competence profile to be used for curriculum development and training provisions and function as an index tool for acquired knowledge, competences as well as training of VET and career guidance professionals in view of the Industry 4.0 challenges and labour market transformations. On the basis of these updated competence standards, a tailor-made Career Guidance 4.0 Training Curriculum has been created, highlighting the new necessary knowledge, competencies and skills, as well as tasks and responsibilities in relation to novel career guidance interventions and increasingly digitised services.

It aims to provide comprehensive knowledge on new adapted career guidance 4.0 methodologies, LMI tools, career guidance and employability practices for youth, aiming to enhance relevant support professionals' upskilling and awareness raising. The relevant training content offers updated career information and guidance methodologies to tackle specific target group's needs, skills adaptation, digital career management skills and employment barriers in the Industry 4.0. The suggested training curriculum follows the principles of adult learning describing the learning goals, expected learning outcomes, and a specific procedure and criteria for assessment of the learning outcomes, including self assessment activities and exercises.

The overall Career Guidance 4.0 Training Curriculum and Handbook sets the updated training standards required for targeted quality training of relevant professionals. The training curriculum supports the adaptation of career information and guidance methodologies, linked to new LMI tools and practices, career prospects and opportunities aligned with new VET and labour market trends in the Industry 4.0, new working arrangements and types of labour. This will match career guidance practices to future needs and contribute to better organization of services across sectors, including education, VET, social inclusion and employment.

Moreover, given the extensive digital transformation of career guidance services, particular attention is paid to highlighting the use of new technologies in an ethically responsible manner, with a focus on the quality of services provided. This includes balancing automation with a human-centered approach in career guidance and ensuring accessibility to digital services for all, thereby preventing technological inequality (digital divide). It also contributes to the improvement of career guidance practices by promoting the continuous professional development of practitioners and the optimal support of beneficiaries. In this way, social responsibility is reinforced, and it is ensured that Career Guidance 4.0 serves the benefit of the educational and professional community and the end users as well as the individual and social welfare. It is also expected to increase professionalism and quality in the provision of training, careers and employment inclusion services for youth, by raising awareness of the practitioners involved to utilise adapted labour market inclusion and information practices, digital tools and novel guidance methodologies, so as to deliver appropriate services fitting the needs of career development in the Industry 4.0.

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1. Career Guidance 4.0 Training Curriculum

1.1. Connection of the Career Guidance 4.0 Training Curriculum with the Career Guidance 4.0 Provision Competence Profile for career guidance, VET and social inclusion professionals

In the context of the rapid transformations, the provision of career guidance is being redefined, leading to the emergence of a novel Career Guidance 4.0 approach.

Career Guidance 4.0 (Euroguidance, 2017; Vlachaki, 2018; Cedefop et al., 2021) refers to the modern approach to career guidance that responds to the challenges and opportunities of Industry 4.0, characterized by unstable, non-linear, and unpredictable career paths. This new reality shifts focus from career management to managing change, adaptability, and individual resilience in the world of work. Career Guidance 4.0 harnesses advanced technologies (artificial intelligence, data analytics, digital platforms, automation) to provide personalized, interactive, and dynamic guidance services. It emphasizes lifelong learning, digital proficiency, labour market intelligence, and inclusive practices, ensuring that guidance services are future-ready, adaptable, and inclusive of all groups—especially the marginalized and vulnerable. Career Guidance 4.0 integrates:

- Innovative digital technologies and ICT for personalized guidance services;
- Contemporary approaches and models that respond to changing, digitized, and precarious work conditions, with an emphasis on individual and social well-being, sustainability, and fairness;
- Up-to-date labour market information, ideally in real time, based on trends and dynamics that impose rapid changes on the nature and content of work; and
- Support for lifelong career development in an educational and employment environment transformed by technological and socio-economic developments and structural changes in the labour market.

It thus signals a necessary shift in the role of career guidance towards dynamic, digital, and interactive practices that enhance the career readiness and development of individuals and groups in a fluid, unpredictable, and interconnected professional landscape. Within this framework, the new ecosystem of career guidance highlights the importance of new essential competencies for emerging professionals, including:

- The balanced use of diverse service delivery channels (remote support, self-help tools, face-to-face counselling) through a blended approach;

- The scientifically sound and ethical use of new available tools and practices (Cedefop, 2019; Barnes et al., 2020); and
- A focus on skills that are difficult to automate (e.g., socio-emotional skills), which are crucial for improving professionals' employability and for maintaining a meaningful guidance relationship with beneficiaries in "impersonal" contexts (Cedefop et al., 2021; Hirschi, 2017).

In this context, the **Career Guidance 4.0 Provision Competence Profile** for career guidance professionals involves integrating knowledge and skills necessary to effectively support individuals in achieving their career goals in the industry 4.0. It includes the definition of specific qualification criteria, professional response criteria and learning/ employment outcomes for career guidance practitioners, trainers and relevant professionals for labour market inclusion. It provides the basis for a learning outcome based approach to ground the curriculum development and training provisions and function as an index tool for acquired knowledge, competences as well as training of VET, career guidance and social inclusion professionals in view of the Industry 4.0 challenges and labour market transformations. Such a competence framework is essential to ensure that these professionals have the necessary skills and knowledge to support individuals with diverse needs effectively. The Career Guidance 4.0 Provision Competence Profile serves as a foundation for the development of training, professional development, and performance assessment of career guidance, VET and social inclusion professionals working to help skills adaptation, career navigation and planning in the Industry 4.0 labour market. A direct connection of the Career Guidance 4.0 Provision Competence Profile and Career Guidance 4.0 Learning Modules, including required competences and relevant learning and employment outcomes is adequately presented.

Career Guidance 4.0 Provision Competence Profile for Career Guidance Practitioners		
Learning Module 1: Lifelong Career Development and Future-oriented Career Management in a Digital Age		
Competencies	Learning Outcomes	Employment Outcomes
• Ability to foster a lifelong learning and career development mindset in clients, emphasizing adaptability and continuous professional development. • Proficiency in guiding clients to develop STEAM and career management skills.	• Knowledge of updated theoretical approaches and models of career empowerment, career readiness and development in transitional, digitized and precarious work conditions (e.g theory of work psychology, new approaches to self-management of change, learning and careers, as well as collaborative professional exploration (self-directed career learning, career guidance in communities, collaborative career exploration/co-careering).	• Support clients to develop their self-awareness and self-perception by applying experiential methods (role plays, exercises etc,) utilizing modern digital technologies and tools. • Support clients to identify the relevance of digital skills and develop transferable skills relevant to multiple sectors. • Encourage clients to develop STEAM skills and

• Ability to apply an extroverted approach and interaction with young beneficiaries (Gen Y & Z) in a digital environment. • Ability to counsel clients on entrepreneurial paths, self-employment, and freelance work in the digital economy and new emerging sectors.	• Knowledge of the latest trends and dynamics and rapidly changing nature of work (globalisation, workforce generational changes, career navigation in international markets and cross-culture collaboration, technological advancements & automation/ Rapid Skills obsolesce and creation of new sectors and professions - new tasks to replace automated tasks/ displacement prospects & transition from declining occupations to new jobs • Knowledge of upskilling and reskilling pathways in response to technological change. • Understanding of the role of STEAM skills (Science, Technology, Engineering, Arts, and Mathematics) in enhancing career development and personal growth and adaptability in an ever-evolving career landscape. • Understanding of digital career management skills such as digital job search, use of social media, creation of a professional digital identity, digital self-employment, digital networking etc.) • Knowledge of business start-up processes and opportunities for entrepreneurship in the digital economy.	digital career management skills and engage in lifelong learning to stay relevant in the evolving job market, through various opportunities (e.g., micro-credentials, digital badges, online courses, vocational training, digital job search, use of social media, creation of a professional digital identity, digital self-employment, digital networking). • Provide guidance on selecting appropriate reskilling or upskilling programs and pathways that align with emerging industry needs and facilitate transition from declining to new occupations. • Foster self-directed learning and the ability to manage career transitions effectively. • Coach clients on building their personal brand, networking, and developing skills for a dynamic, competitive job market. • Provide guidance on new business models, business planning, and the entrepreneurial mindset in the digital economy.
Learning Module 2: Emerging trends and technologies affecting the labour market/ Labour market intelligence and Data Literacy in industry 4.0		
Competencies	Learning Outcomes	Employment outcomes

• Ability to follow labour market trends, employment policies, and socio-economic changes at local, national, and global levels. • Ability to analyze and interpret labour market data using digital tools and analytics.	• Understanding of Industry 4.0 technologies such as automation, artificial intelligence (AI), Internet of Things (IoT), and their impact on reshaping industries, job roles, and skill demands in the job market. • Understanding of digital transformation, sustainable development and environmental perspective (green guidance) and other contemporary factors. • Understanding of new non-standard forms of employment/ work methods (e.g. gig economy, remote remote and hybrid work models , digital self-employment/crowd work, teleworking, multi-tasking and multi-employer work, job sharing, (project-to-project careers, multi-tasking /multi-agency work, interaction with AI systems). • Familiarity with data-driven tools to assess labour market needs, including analytics and forecasting. • Processing updated career information material on education, training, employment and the changing labour market trends, new forms of work, prospects for future jobs, new required skills, etc.	• Provide data-driven career advice based on labour market trends and future skills needs. • Help clients navigate non-traditional employment forms (e.g., freelancing, gig work, and entrepreneurship). • Use data analytics to predict emerging job roles and sectors in demand due to technological shifts. • Develop or provide digital career information material presenting the current labour market trends and prospects, based on digital transformation, sustainable development and environmental perspective and other contemporary factors.
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Learning Module 3: Digital career planning in industry 4.0 – Using Digital Career Guidance Tools and Methods

Competencies	Learning Outcomes	Employment outcomes
• Ability to work in a blended/ multi-channel service delivery approach. • Ability to identify, critically select, integrate, adapt, and contribute to the development of new ICT methods for career guidance. • Proficiency in using digital career guidance tools (e.g., AI-driven	• Knowledge of digitized methods and media, digital communication and cooperation practices, technology systems and methods related to the planning and organization of the provision of career guidance services (e.g. Blockchain & microcredentials systems). • Knowledge of the use of advanced Labour Market Information LMI & skills intelligence databases and other digital and automated tools, career chatbots, career	• Use of technology systems and methods for organizing, classifying and sharing information (e.g. Modern electronic archiving tools and data management systems, Blockchain & microcredentials systems etc.). • Communicate with clients via virtual counseling sessions and different tools of

career assessments, virtual job fairs, online career platforms). • Ability to navigate online platforms and e-portfolios to guide clients on upskilling and reskilling.	management "games" (serious games) etc., and psychometric professional assessment (gamified assessment) • Knowledge of digitized methods and advanced technologies for career education/ exploration activities (e.g. Virtual - Augmented Reality)	(synchronous-asynchronous communication) (e.g. telephone helplines, video communication, email communication, live webinars with chat function, chatbots etc.) • Use of advanced Labour Market Information LMI & skills intelligence databases and other digital and automated tools to follow current labour market trends. • Support clients in exploring personal skills as well as learning and employment opportunities, using digital platforms, career chatbots, psychometric gamified assessment and job matching etc) • Organizing and using digital interactive career education experiences using advanced technologies (Virtual - Augmented Reality) e.g. virtual career days, 3D career videos, career serious games, virtual workplace simulations, user activation activities on career development & management through augmented reality.
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Learning Module 4: Inclusivity and Social Equity in Career Guidance

Competencies	Learning Outcomes	Employment outcomes
• Ability to tailor career guidance provision to meet the needs of disadvantaged, vulnerable or marginalized groups. • Skills in advocating for social equity in access	• Understanding of diversity, equity, social justice and just transition, social responsibility and inclusion principles in the context of career guidance. • Understanding the importance of inclusivity in career guidance and the diverse needs, particularly for	• Design and deliver adapted and accessible career guidance services, material and tools that promote equity and inclusion according to the needs of diverse groups.

to job opportunities and career development resources.	underrepresented, vulnerable or marginalized groups facing discrimination, social exclusion or other forms of inequality in terms of professional development and inclusion in Industry 4.0. (digital divide) such as (e.g. NEETs, long-term unemployed, low-skilled or older workers, migrants, refugees, asylum seekers, persons with disabilities and/or special educational needs, mental or chronic illnesses, cultural minorities or ethnic groups, Roma, LGBTQI+ communities, victims of domestic violence, single parents, juvenile offenders, ex-prisoners, ex-substance abusers, etc.)	- Assist clients from marginalized groups in overcoming barriers to employment, particularly in sectors affected by digitization and automation. - Work with educational institutions to promote inclusive training and upskilling opportunities. - Work with employers to promote inclusive hiring practices and support diversity in the workplace.
Learning Module 5: Professional development and Ethical Professional Practice		
Competencies	Learning Outcomes	Employment outcomes
- Enhance professional skills essential for future employability in industry 4.0 - Adherence to ethical standards, particularly with respect to client data privacy and the use of AI-driven tools. - Commitment to client-centered, impartial, and non-discriminatory career guidance. - Ability to build synergies facilitating partnerships that enhance career guidance services and labour market inclusion with employers, educational institutions, government agencies, and community organizations.	- Learn to develop high-level cognitive abilities that are difficult to automate (critical thinking, analytical thinking, complex problem solving), readiness for change and innovation, interdisciplinary collaboration and social-emotional skills such as empathy, emotion management, diversity management, active listening and creativity, resilience, adaptability, etc. - Understanding of ethical and quality assurance issues related to career counselling ICT-based interventions, such as cyber security and personal data protection. - Understanding ways of working across sectors to integrate insights from education, industry, and public policy into career guidance.	- Apply specifications and ethics for the remote and digital provision of career guidance services, as well as personal and sensitive data protection regulations. - Ensure that the use of digital tools respects client confidentiality and individual needs. - Provide unbiased, transparent advice that prioritizes client welfare, informed decision-making, employability in the industry 4.0. - Develop and maintain a network of stakeholders to support career opportunities and transitions for clients to address complex labour market challenges in the context of Industry 4.0..

The proposed **Career Guidance 4.0 training curriculum** responds to the urgent need for preparing career guidance, VET and social inclusion professionals to :

- Empowering clients with STEAM, entrepreneurial, and digital career management skills.
- Utilizing advanced digital tools and AI-driven platforms to enhance the reach and quality of career services.
- Interpreting labour market data to provide forward-looking, data-driven guidance aligned with emerging industries.
- Fostering equity and inclusion, ensuring that underrepresented populations are not left behind in the digital transition.
- Upholding ethical standards in the use of digital technologies and managing sensitive client data with integrity.

Focusing on the development of these competencies, the curriculum aims to enable professionals to support diverse clients through transitions, enhance employability in an uncertain market, and promote social equity in access to opportunities. It is not just about adapting to industry 4.0 changes —it is about leading it, with a human-centered, tech-informed, and inclusion-driven approach to career guidance in the 21st century.

1.2 Career Guidance 4.0 training curriculum features

The Career Guidance 4.0 training curriculum will have a hybrid character and will take place both online and combining physical activities, although the option of only distance learning will remain available, in order to accommodate the needs of the training, career and social inclusion professionals as well as providers in different regions. Moreover, the learning outcomes are clearly defined for every unit, and assessment criteria are developed, contributing to an easier validation and certification process.

The application of face to face (or distance) synchronous training is an important part but also in critical points of the development of the program (opening and closing meeting, start and end of each module, preparation of micro-counselling session, program evaluation, etc.). The synchronous training is combined with the asynchronous distance training, in which learners have the opportunity to study a specially designed material. At the same time, the use of specialized technological applications in the context of the e-learning platform can support a learning community during asynchronous education. The proposed educational methodology – which primarily supports in-person but also distance asynchronous education – derives its practices and orientation from the central principles of the field of adult education.

The training course will be available in all the languages of partner organizations, through the project e-learning platform, to enable the distance learning processes for the pilot implementation of the training, including the structured training material according to the Career Guidance 4.0 Training Curriculum and Handbook.

The Career Guidance 4.0 training curriculum

MODULES	Face To Face or distance synchronous training / HOURS	Distance Asynchronous Learning/ HOURS	TOTAL HOURS
Module 1: Lifelong Career Development and Future-oriented Career Management in a Digital Age	2	5	7
Module 2: Emerging trends and technologies affecting the labour market/ Labour market intelligence and Data Literacy in industry 4.0	2	6	8
Module 3: Digital career planning in industry 4.0 – Using Digital Career Guidance Tools and Methods	3	6	9

Module 4: Inclusivity and Social Equity in Career Guidance	2	4	6
Module 5: Professional development and Ethical Professional Practice	1	3	4
Self- assessment	0	1	1
TOTAL	10	25	35

TOTAL HOURS : 35 - ECVET: 1.5

For a continuing training program ECVET credits are determined based on the total learning hours, according to the measure (1 hour of learning corresponds to 0.04 ECVET or conversely 25 hours of total teaching corresponds to 1 ECVET)

1.3 Educational techniques / Suggested educational activities related to the teaching of the subject

The Career Guidance 4.0 training curriculum requires a mix of educational techniques and activities to effectively convey theoretical knowledge and practical skills. The strengthening of an interactive learning environment is supported by the use of short enriched presentations and the frequent application of participatory educational techniques and tools. As an example, we mention that strengthening the participation of trainees is actively supported by the use of simple educational techniques, such as:

- Brainstorming, question-answers (Q & A)
- Class Discussions: Encourage active participation in class discussions and debates to enhance trainees' ability to apply their knowledge to real-world scenarios.
- Individual and/or group application or problem-solving exercises, analysis of Real-world Career Guidance 4.0 Cases studies. Evaluate students' ability to analyze, critique, and recommend improvements.
- Group work, Role-Playing and Simulations, Case studies: Encourage trainees to work in teams to develop Career Guidance 4.0 strategies for clients career development and motivation.

The proposed educational activities, utilizing the above or similar educational techniques, are actively linked to the subject matter of each learning unit and the needs to develop practical skills, effective in real working conditions

Finally, due to the use of both distance synchronous training and distance asynchronous learning, more emphasis needs to be given to the design of the educational process, to strengthen the trainees' participation. Processes such as the initial acquaintance, the investigation of training needs and the drawing up of a training contract in the context of the opening meeting, the formal and/or informal feedback of the training process, the application of participatory techniques and the evaluation of the program are the safe

basis for strengthening the involvement of trainees in the most difficult condition of physical distance, where communication is necessarily carried out using technical means. In this context, the activities proposed in the educational material can also be applied in the online environment, adapted accordingly to facilitate the effective participation of the learners. Here, for example, creative adjustments may be necessary, such as simplifying the content and degree of difficulty of some - especially group - activities, adjusting their preparation time, the way of their online coordination from the instructor's side, etc. etc., taking into account the characteristics of the specific group, their degree of familiarity with the technical environment, the technical capabilities of the specific e-learning platform to utilize various educational digital tools, etc. In addition, it is important that the instructor adequately prepares for the use of a variety of educational tools (formation of groups, collective work, modern use of audio-visual material, labour market and skills intelligence , etc.).

1.4 E- learning platform

In the context of distance education, the creation of an integrated distance training system with the use of an electronic online platform is foreseen. The opportunity is thus provided to the trainees to learn by choosing the place, the time and the pace of the study themselves in the context of asynchronous training, without this meaning that it is a solitary process, since the possibility is given for communication and feedback at each stage of the educational process either between learners or between learners and trainers (online learning community). Specifically, in the environment of the e-platform, educational material, self-assessment exercises, reflection activities, case studies, etc. are posted for study. In this way, the trainees apart from studying the material, are guided in interaction processes, prompting for reflection and critical review of the acquired knowledge. Also multiple sources of learning and further reading are listed to enable experiential learning. The activities suggested in the educational material will also be applied in the online environment, adapted accordingly to facilitate the effective participation of the learners.

The platform provides LMS - Learning management system, including the learning material and also multiple choice self-assessment questions, in order to award the certificates upon completion of the training (auto generated by the e-learning platform).

1.5 Training material, equipment and teaching aids

For an effective Career Guidance 4.0 Training, practitioners should be provided with comprehensive training materials that include manuals, case studies, and best practice guidelines. Essential equipment includes computers with internet access, teaching aids such as multimedia presentations, role-play scenarios, and interactive workshops. Additionally, access to an online repository of resources, including up-to-date information, support services directories, and digital career guidance tools, will ensure practitioners are well-equipped to support diverse clients in future oriented career development.

Assistive technologies (e.g., screen readers, speech-to-text software), and adaptive devices will ensure accessibility of training material.

The trainer should take into account the expected learning outcomes and utilizing a variety of educational techniques, uses the supervisory material, adapting it to the needs of the group of trainees, with the aim of activating it during the educational process. In this direction, the main supervisory tools that will be used during the education/training are:

- Career Guidance 4.0 Textbook (training material structured in 5 learning modules also uploaded into the Career Guidance 4.0 e-learning platform)
- Career Guidance 4.0 software and tools
- Labour market and skills intelligence databases and resources
- Relevant academic papers
- Online articles
- Case studies and real life scenarios
- Online videos and webinars
- Relevant websites, online information systems and tools related to the subject matter).

1.6 Trainers' profile

The profile of trainers to employ the Career Guidance 4.0 training curriculum is crucial to the effectiveness of the program. Trainers should have a combination of academic qualifications, practical experience, and a passion for sustainable and inclusive educational practices. Here's a profile of the ideal trainers:

- **Educational Background:** Trainers should ideally have a master's or Ph.D. in fields related to Career Counselling, VET, Social and Career Inclusion, or a related discipline.
- **Expertise/In-Depth Knowledge:** Trainers should possess a deep understanding of career development principles, strategies, and best practices. They should stay updated with the latest research, trends, and developments in the field.
- **Professional Experience:** Experience in novel labour market inclusion initiatives, either as consultants, practitioners, or managers within relevant organizations or projects, is highly valuable. They should be able to draw from real-world examples and case studies to illustrate key concepts.

The trainers for the Career Guidance 4.0 training curriculum play a pivotal role in shaping the knowledge and skills of future oriented professionals. Their qualifications and expertise should not only impart theoretical knowledge but also provide practical insights and inspire diverse beneficiaries to become champions of innovation, sustainability and creativity in their careers.

1.7 Trainees' profile

The Career Guidance 4.0 Training is a comprehensive program designed for professionals who are interested in engaging in novel theories and applications of career guidance and providing specialized career support to help different target client groups follow the transformative realities of the labour market. This comprehensive program aims to equip participants with the knowledge, skills, and tools necessary to provide effective career guidance and support within the industry 4.0 perspectives. By fostering an innovative and inclusive approach, the training ensures that professionals are well-prepared to address the unique challenges and opportunities faced by individuals in planning new career development journeys in the digitised era.

This training is ideal for career counselors, VET professionals, social workers, educators, human resource professionals, and other practitioners who work or wish to work with labour market inclusion. It is mostly suitable either for experienced or newly engaged professionals who wish to gain a deeper understanding of new career guidance perspectives and adapted tools. More specifically, the candidate trainees for the Career Guidance 4.0 Training should possess:

- University degree in any subject and preferably related to Career Counselling, Counseling Psychology, Adult Learning, Vocational Training, Labour Market Inclusion, Social Work etc. (EQF 6)
- Additional professional experience in Career Guidance (optional)
- and/or
- Continuing education on issues related to employment counseling (optional)

1.8 Evaluation of the educational process / Evaluation criteria and procedures of the Learning Objectives

The evaluation of the learning outcomes of this training program, i.e. the knowledge, skills and abilities of the trainees for the provision of career guidance 4.0 services. is a continuous process, as it takes place throughout and at the end of the training. the assessment of the overall comprehension of course materials and concepts can include multiple-choice questions, short answers, and essay questions.

Assessing the Career Guidance Training 4.0 outcomes is essential to ensure that the learning objectives are met, and participants acquire the necessary knowledge and skills. By incorporating a variety of assessment methods, we can ensure that the Career Guidance 4.0 Training curriculum effectively evaluates trainees' understanding of relevant principles and their ability to apply them in practical settings. Additionally, ongoing feedback and evaluation of the curriculum itself will help improve its effectiveness over time.

Educational evaluation will follow the process described below. Trainees have access to the training material (reference textbook), which is also structured in 5 learning modules into the Career Guidance 4.0 e-learning platform. Each of the modules is designed in such a way as to ensure the active participation of the trainees but also to enable the trainers to be able to evaluate and interact with the trainees. In particular, each educational module, in addition to the specially designed and interactive reference text (theory), consists of:

- **Motivation questions**, which are usually integrated at the beginning of a chapter, with the aim of eliciting previous experiences and knowledge of the trainees connected to the theory which is presented afterwards.
- **Short reflective experiential activities /case studies** / production of a short text, to enable learners to connect theory to practice and develop reflection on specific questions that have been raised based on a specific case.
- **Digital sources for further study**, that is websites, LMI databases, online articles, videos etc. that the learner can visit to gather more information and/or get specific stimuli and knowledge for the specific learning module.
- **Final self-assessment multiple-choice questions**, after completing all the learning modules, which are both an assessment tool and a way for knowledge review.

Table 1: Evaluation of learning outcomes

EVALUATION PHASE	EVALUATION METHOD	EVALUATION RESULTS
At the beginning of each training module	Motivation questions at the beginning of each module (2 per module)	Participation in a short open discussion to stimulate the learning process.
Assessment after the end of each training module	25 Reflection activities / case studies Module 1: 5 activities Module 2: 6 activities Module 3: 5 activities Module 4: 5 activities Module 5: 3 activities	The trainee has successfully acquired the learning outcomes of each module, having successfully completed 50% of the reflection activities per module.

	The reflection activities / case studies enhance experiential learning, motivating trainees to answer specific questions by combining their personal, professional and social experience with the offered conceptual knowledge of each module	
Self- Evaluation at the end of Career Guidance 4.0 training	30 multiple choice questions, multiple choice or true/false statements to allow assessment of the level of achievements and achievement of the overall learning goals. The self-assessment exercises are closed-ended questions (multiple choice, true-false, etc.) (6 per module)	The trainee has successfully completed the whole training, having successfully answered 50% of the questions. GRADES SCORE EVALUATION DEFINITION 50%+ of right self evaluation answers - PASS

1.9 General Guidelines on Implementing the Career Guidance 4.0 Training

The Career Guidance 4.0 Training, as being developed within a transnational project, is designed with flexibility and adaptability in mind, allowing it to be tailored to meet the specific needs and contexts of different national settings. This modular approach ensures that the training is relevant, accessible, and effective for professionals working in various regions and with diverse populations.

The training is composed of core modules that provide foundational knowledge and skills essential for novel career guidance within the industry 4.0 perspectives. These modules cover universal principles and best practices, ensuring that all trainees gain a comprehensive understanding of key concepts. The specific focus on each module can be chosen based on the specific needs and interests of the trainees, allowing for a deeper dive into topics that are particularly relevant to the national context and needs encountered or defined by practitioners.

The training materials and case studies are designed to be adaptable to the cultural contexts of different countries. Trainers can customize examples, case studies, and scenarios to reflect the cultural norms, values, and practices of their specific region, making the training more relatable and impactful for trainees. Trainers can also incorporate national and local case studies that highlight successful examples of new future oriented guidance practices within the country. This provides participants with practical insights and inspiration from real-world applications, demonstrating how theoretical concepts can be effectively implemented in their own context. The trainers should also highlight information about local resources, support networks, and organizations that can assist practitioners in applying innovative approaches and present emerging industry 4.0 career opportunities. This ensures that trainees are aware of the specific services and support systems available in their country, enhancing their ability to provide comprehensive and future oriented career guidance.

To effectively conduct the Career Guidance 4.0 Training, it is important that the trainers assigned should thoroughly map and understand the specific learning needs of the trainees.

It is also crucial to adapt the presentation of the learning material according to the trainees' academic level, background, field of practice etc., taking also into account the national context of each different training. The training should be adapted to incorporate national laws, regulations, and policies, ensuring that practitioners are well-informed about the new perspectives open for end users in their country.

The training material is translated into the local language of the project partners. In the case of disabled trainees it is also formatted to meet the accessibility needs of the participants.

In addition, it is fundamental to follow the adult learning principles that guide effective teaching and training practices tailored to adult learners, ensuring that learning experiences are relevant, engaging, and practical for adults.

Some key recommendations for trainers towards effective delivery of the Career Guidance 4.0 training curriculum include:

- **Contextualize the Training:** Adapt training content to address current challenges and opportunities that learners face in their professional contexts. Ensure that learning is relevant and immediately applicable by incorporating real-world scenarios and examples.
- **Align Activities with Learning Objectives:** Design all training activities to align with clear, overarching learning objectives. Ensure that trainees acquire both the knowledge and practical skills necessary for effective career guidance in the evolving world of work.

- **Promote Self-Directed Learning:** Empower learners to set their own learning goals and choose topics that align with their professional interests and needs. Encourage autonomy and responsibility in the learning process.
- **Facilitate Problem-Centered Learning:** Use case studies, problem-solving tasks, and role-playing exercises that reflect real-life challenges. Encourage learners to adopt different perspectives and develop practical solutions to career-related issues.
- **Ensure Relevance and Practical Application:** Select case studies and examples that mirror learners' work environments and responsibilities. Emphasize how insights from these cases can be applied to actual career counseling scenarios.
- **Focus on Skills Development:** Incorporate exercises aimed at building essential skills such as communication, critical thinking, decision-making, and problem-solving. Use practical, relatable examples to enhance skill acquisition.
- **Highlight Real-World Relevance:** Demonstrate the connection between what is being learned and the learners' personal and professional lives. Emphasize practical problems and solutions that trainees may encounter in their roles.
- **Encourage Experience-Based Learning:** Invite learners to share their existing knowledge and professional experiences. Use interactive methods such as group work and experiential activities to connect new information with what learners already know.
- **Foster an Inclusive and Constructive Learning Environment:** Promote open communication, mutual respect, and active participation. Support learners' personal and career growth by creating a safe space for sharing ideas, feedback, and enthusiasm for the subject matter.
- **Promote Collaborative Learning:** Facilitate group discussions and collaborative exercises to allow peer learning and knowledge exchange. Motivate trainees to engage in critical and creative thinking as they work together on shared challenges.
- **Ensure Active Facilitation:** Engage learners consistently throughout the training. Provide support as needed and monitor participation to ensure inclusivity and engagement from all.
- **Incorporate Flexible Learning Approaches:** Be responsive to the needs and preferences of the learners by offering various formats such as in-person sessions, online modules, blended learning, and self-paced materials. Flexibility helps accommodate learners' professional and personal responsibilities.

- **Recognize and Respect Learners' Expertise:** Acknowledge the prior experience and knowledge that learners bring to the training. Offer constructive feedback and recognize individual and group achievements to build confidence and competence.
- **Encourage Reflection and Self-Assessment:** Provide structured opportunities for learners to reflect on their learning, evaluate their progress, and identify areas for development. Include end-of-activity reflection sessions to deepen understanding and encourage application of new skills.
- **Foster a Culture of Feedback:** Promote ongoing feedback exchanges among trainees and between trainer and participants. Highlight strengths and areas for improvement with constructive suggestions to support continued learning.
- **Evaluate and Improve:** Conduct evaluations to gather trainee feedback on the content, methods, and case studies used. Use this input to continuously refine and improve future training sessions.
- **Provide Ongoing Support:** Offer follow-up resources and guidance to help trainees implement what they've learned. Encourage continued practice, reflection, and professional development beyond the training sessions.

Starting with pilot training in the different partner countries allows for testing and refinement of the training approach. Successful pilots can then be scaled up, incorporating lessons learned to improve the training's effectiveness and adaptability.

By structuring the Career Guidance 4.0 Training in a modular and adaptable way, it ensures that career guidance practitioners are equipped with the knowledge and skills they need to engage in oriented career guidance provision so as to support diverse beneficiaries in career development and employment inclusion in the future labour market. It offers incentives such as certification and professional advancement opportunities, urging career professionals to specialize in emerging aspects of career guidance. Conducting workshops and seminars for employers at national level and highlighting successful partnerships between employers and career guidance providers could also enhance the effectiveness of this training. This holistic approach promotes collaboration among social inclusion professionals, career counselors, organizations, employers, and policymakers. Collaborative efforts can lead to the development of comprehensive support systems and innovative solutions for employment inclusion and empowerment globally, fostering a more inclusive and supportive environment for all, while providing career guidance 4.0 contributes to economic growth, as well as the overall individual and societal well-being.

1.10 Certification process

Defining the counselor's satisfactory professional and ethical response and assessing the meaningful acquisition and application of core counseling skills and adequate knowledge for serving different target groups are considered integral parts of evaluating the educational process and learning outcomes of education (NICE, 2012).

In the case of Career Guidance 4.0 consortium, each partner will be responsible for awarding a certificate to training participants.

The process of certification foresees that the trainees will have to successfully complete 50% of the reflection activities per module and that they have successfully answered 50% of the self evaluation questions (50%+ of right answers - PASS).

The Career Guidance 4.0 certificate will be auto-generated by the respective e-learning platform and will contain the following information:

1. **Identification of the trainee:** (name of the participant)
2. **Proposed Title of the course:** Career Guidance 4.0 Training: Empowering Career Professionals for the Next-Generation Career Guidance provision
3. **Level (EQF):** 6
4. **Country of issuance:** (here each country will have to include its own)
5. **Entity:** (here each country will have to include its own)
6. **Date of issue:** (here each country will have to include its own)
7. **Learning outcomes:** defined in each module
8. **ECVET:** 1,5
9. **Type of evaluation:** Self-assessment
10. **Form of participation in training:** Face to face synchronous (distance) learning
- Asynchronous distance learning
11. **Prerequisites to enroll in the training:** EQF level 6 qualification in career counselling, VET training or social inclusion.

1.11 Career Guidance 4.0 Training: Empowering Career Professionals for the next-generation Career Guidance provision - Defining learning scheme, content and self evaluation questions by modules

I. Module 1: Lifelong Career Development and Future-oriented Career Management in the Digital Age

o Learning scheme

Module 1 " Lifelong Career Development and Future-oriented Career Management in a Digital Age," is the foundational module, aiming to provide guidance practitioners, VET trainers, and social inclusion professionals with a comprehensive understanding of the core principles, concepts, emerging trends, and applications related to lifelong career development and future-oriented career management in the context of the digital age. It introduces the key challenges and opportunities brought about by rapid technological advancements, evolving labour market dynamics, and the non-linear nature of modern career paths. Serving as an essential introduction to the broader curriculum, this module sets the stage for deeper exploration of strategies, tools, and approaches that career professionals can use to effectively support individuals in navigating and thriving in an unpredictable and digitally-driven world of work.

Learning Objectives:

This module will support trainees to:

- Acquire knowledge of updated theoretical approaches to career empowerment, career readiness, and career development in transitional, digitized, and precarious work environments.
- Gain understanding of the latest trends and dynamics influencing the world of work.
- Identify appropriate upskilling and reskilling pathways to support career transitions and sustainable employability in response to technological change.
- Identify the role of STEAM skills (Science, Technology, Engineering, Arts, and Mathematics) in fostering career adaptability, personal growth, and resilience within the evolving digital economy.
- Acquire knowledge of digital career management skills among diverse end users and various client groups, ensuring equitable access to career opportunities in an increasingly digitised world of work.
- Describe business start-up processes and entrepreneurial opportunities in the digital economy, recognizing entrepreneurship as a viable and strategic career development path.

▪ Expected Learning Outcomes:

By the end of this module, trainees will be able to:

- Apply updated theoretical approaches to career empowerment, career readiness, and career development in transitional, digitized, and precarious work environments.
- Analyze the latest trends, challenges, and dynamics shaping the evolving world of work, including globalization, technological advancements, and shifting labour markets.
- Compare and recommend effective upskilling and reskilling pathways that support career transitions and sustainable employability in the context of technological change.

- Explain and enhance the development of STEAM skills (Science, Technology, Engineering, Arts, and Mathematics) to enable clients' career adaptability, personal growth, and resilience in the digital economy.
- Support the development and application of digital career management skills across diverse user groups, ensuring equitable access to career opportunities in the increasingly digitized world of work.
- Describe the key steps in business start-up processes and identify entrepreneurial opportunities within the digital economy, to enable clients recognizing entrepreneurship as a strategic pathway for career development.

Key words:

Career Development, Career Empowerment, Self-Directed Career Learning, Transitional Labour Markets, STEAM Skills, Upskilling and Reskilling, Digital Career Management, Career Resilience

Motivation Questions

- Do you believe that current career guidance approaches are adequate for helping individuals build sustainable and resilient careers in an era marked by rapid technological change, uncertainty, and emerging opportunities?
- In your opinion, are existing career development strategies evolving fast enough to empower individuals to successfully navigate nonlinear, global, and digital career paths?

Suggested learning content

- Conceptualising Career Guidance 4.0 - Contemporary Theories and Models of Career Development - updated theoretical frameworks on career empowerment, career readiness, and career development in transitional, digitized, and precarious work contexts.
- Workforce generational changes, identification of contemporary clients' needs with special focus on young beneficiaries (Gen Y & Z)
- Upskilling and reskilling strategies for sustainable and resilient careers - identification of essential learning/career pathways (e.g., micro-credentials, digital badges, online courses, vocational training)
- Role of STEAM skills (Science, Technology, Engineering, Arts, and Mathematics) in fostering adaptability, personal growth, creativity, and resilience in a rapidly changing economic and professional landscape.
- Digital career management skills such as digital job search techniques, use of social media, creation of a professional digital identity, digital self-employment, online professional networking etc.)
- Entrepreneurship and Business Innovation in the Digital Economy

o Self-evaluation Questions

Targeted multiple choice questions to enable self-evaluation within the first module of the course will help learners to reflect on the educational material of the Module 1 and assess their understanding on the basic relevant concepts and theoretical background. The six self-evaluation questions should address the following themes:

1. Career Empowerment (Understanding how career guidance helps individuals navigate a dynamic and changing career landscape.)
2. Self-Directed Career Learning (Exploring the role of individuals in taking initiative to manage and develop their career paths.)
3. Digital Career Management Skills (Understanding the importance of digital tools and platforms for job search, networking, and building a professional digital identity.)
4. STEAM Skills in Career Development (The significance of Science, Technology, Engineering, Arts, and Mathematics skills in fostering career adaptability and growth.)
5. Reskilling and Upskilling (Recognizing the need for continuous learning and skill development in response to technological change and automation.)
6. Entrepreneurship and Career Resilience (Exploring the role of entrepreneurship in career development, self-employment, and long-term professional sustainability.)

II. Module 2: Emerging trends and technologies affecting the industry 4.0 labour market - Fostering Labour market intelligence and Data Literacy

o Learning scheme

Module 2, "Emerging trends and technologies affecting the labour market/ Labour market intelligence and Data Literacy in industry 4.0 " aims to provide guidance practitioners, VET trainers, and social inclusion professionals with the necessary knowledge on understanding and applying labour market intelligence, data interpretation, and use of advanced labour market forecasting tools so as to be able to offer tailored services that address the evolving needs of individuals. Trainees will gain insights into the latest labour market trends and new, adapted guidance methodologies to better support diverse client groups in navigating the challenges and opportunities of Industry 4.0.

Learning Objectives:

This module will support trainees to:

- Understand the impact of Industry 4.0 technologies, such as automation, artificial intelligence (AI), and the Internet of Things (IoT), on reshaping industries, job roles, and skill demands in the labour market.
- Analyze the concepts of digital transformation, sustainable development, and the environmental perspective (green guidance), recognizing their influence on career guidance practices and labor market trends.
- Identify new non-standard forms of employment and work methods (e.g., gig economy, remote and hybrid work models, digital self-employment/crowd work, teleworking, multi-tasking, and multi-employer work) and their implications for career development.
- Familiarize with data-driven tools for assessing labor market needs, including analytics, forecasting, and how these tools support career guidance and planning.
- Process updated career information related to education, training, employment trends, new forms of work, future job prospects, and the evolving skill requirements in Industry 4.0.

Expected Learning Outcomes:

By the end of this module, trainees will be able to:

- Demonstrate and integrate knowledge of the impact of Industry 4.0 technologies and megatrends in providing career information.
- Develop or provide digital career information material presenting the current labour market trends and prospects, based on digital transformation, sustainable development and environmental perspective and other contemporary factors. Provide data-driven career advice based on labour market trends and future skills needs.
- Use data analytics to recommend emerging job roles and sectors in demand.
- Help clients navigate non-traditional employment forms (e.g., freelancing, gig work, and entrepreneurship).

Key words: Industry 4.0, Labour Market Analytics, Automation, Artificial Intelligence, Internet of Things (IoT), Digital Transformation, Sustainable Development, Green Guidance, Gig Economy, New forms of Employment

Motivation Questions

- What are the key Industry 4.0 megatrends influencing future labor market trends and the evolution of occupations and tasks?
- How can understanding data-driven labour market trends enhance guiding individuals in navigating future career transitions?

Suggested learning content

- Industry 4.0 megatrends (technological advancements, automation, artificial intelligence (AI), Digitalization and Big Data, Internet of Things (IoT) and Smart Systems, Cybersecurity and Data Privacy, Sustainability and Green Technologies, Demographic Shifts and Globalization, Human-Machine Collaboration)
- Labour Market Transformation. How Industry 4.0 megatrends are reshaping industries, job roles, and the demand for new skills Job displacement challenges and job creation opportunities in Industry 4.0 .Non-Standard Forms of Employment and Work Methods (gig economy, remote work, digital self-employment, and job sharing).
- Sustainable Development: The intersection of economic growth, environmental sustainability, and digital innovation in the labour market. Environmental perspective (green guidance) and other contemporary factors.
- Labour Market Information (LMI) & Skills Intelligence - assess labour market needs, using data analytics and forecasting. Interpreting skills gaps and trends in the labour market. Integration of skills intelligence into career development planning.

o Self-evaluation Exercises

Targeted multiple-choice questions will support self-evaluation within the second module of the course, helping learners to actively reflect on the educational content of Module 2 and assess their grasp of the key concepts and theoretical foundations.

The six self-assessment questions will focus on the following themes:

1. Understanding Industry 4.0 Megatrends
2. Impact on Labour Market Transformation
3. Challenges and Opportunities: Job Displacement vs Job Creation
4. Non-Standard Forms of Employment
5. Sustainable Development and future jobs.
6. Labour Market Intelligence and Forecasting Tools - use of data analytics and skills gaps interpretation to provide updated career guidance.

III. Module 3: Digital career planning within industry 4.0 – Using Digital Career Guidance Tools and Methods

O Learning scheme

Module 3, "Digital career planning in industry 4.0 – Using Digital Career Guidance Tools and Methods" aims to provide guidance practitioners, VET trainers, and social inclusion professionals with the knowledge and skills needed to effectively use digital career guidance tools and innovative methods to assist individuals in navigating the rapidly evolving labour market.

Learning Objectives:

This module will support trainees to:

- Familiarize with digitized methods and media, as well as digital communication and collaboration practices essential for modern career guidance services.
- Acquire knowledge on the effective use of advanced Labour Market Information LMI & skills intelligence databases and other digital and automated tools, gamified assessment platforms, career chatbots, and career management applications ("serious games").
- Utilize digitized methods and advanced technologies for career education and exploration activities, incorporating innovative tools.

Expected Learning Outcomes:

By the end of this module, trainees will be able to:

- Identify and utilise technology systems and methods for organizing, classifying and sharing information (e.g. Modern electronic archiving tools and data management systems, Blockchain & microcredentials systems etc.).

- Communicate with clients via virtual counseling sessions and different tools of synchronous-asynchronous communication (e.g. telephone helplines, video communication, email communication, live webinars with chat function, chatbots etc.)
- Support clients in exploring personal skills as well as learning and employment opportunities, using digital platforms, career chatbots, psychometric gamified assessment and job matching etc)
- organise and use digital interactive career education experiences supported by advanced technologies (Virtual - Augmented Reality) e.g. virtual career days, 3D career videos, career serious games, virtual workplace simulations, user activation activities on career development & management through augmented reality.

Key words:

Digital Career Guidance, gamification, serious games, Virtual Reality (VR) and Augmented Reality (AR), Blockchain & Microcredentials

Motivation Questions

- How can digital tools and emerging technologies transform the way we support individuals in making informed and empowered career choices in a rapidly changing world of work?
- What digital tools do you utilize in your work as a career guidance practitioner, and how do you believe they contribute to enhancing the quality of the services you provide?

o Suggested Learning Content

- The role of technology in modern career guidance - Overview of digital tools in career counseling and digital career planning within Industry 4.0
- Digital Tools for Career Education & Exploration - Career chatbots and AI-driven guidance tools. Gamification and serious games: Enhancing career assessments and decision-making
- Blockchain and microcredentials: Digital validation of skills and qualifications
- Labour Market Intelligence (LMI) & Skills Intelligence Databases - How to access and use LMI platforms to inform career counseling
- Collaborative and Communication Tools in Career Counseling - Digital platforms for client communication and feedback. Creating personalized career plans using digital tools. Enhancing client engagement through interactive and visual technologies. Managing digital career portfolios and online presence (LinkedIn, personal websites)
- Utilise the Careers 4.0 digital tools

o Self-evaluation Exercises

Targeted multiple-choice questions will support self-evaluation within the third module of the course, helping learners to actively reflect on the educational content of Module 3 and assess their grasp of the key concepts and theoretical foundations.

The six self-assessment questions will focus on the following themes:

1. Understanding the role of Digital Tools in Career Guidance.
2. Using Labour Market Intelligence (LMI) databases and tools
3. Gamification and Serious Games in Career Assessment
4. Career Education & Exploration - Effectiveness of immersive technologies (e.g., VR/AR) in helping clients explore career options and workplaces
5. Digital validation of skills and qualifications
6. Effective use of Careers 4.0 digital tools

IV. Module 4: Inclusivity and Social Equity in Career Guidance 4.0

O Learning scheme

Module 4: "Inclusivity and Social Equity in Career Guidance 4.0" aims to equip guidance practitioners, VET trainers, and social inclusion professionals with the essential knowledge and skills needed to understand, identify, and implement accessible and adapted career guidance services, materials, and tools. This module emphasizes promoting equity and inclusion by addressing the diverse needs of various client groups. It focuses on combating the digital divide, fostering labour market inclusion, and ensuring equal opportunities for all in the workforce.

Learning Objectives:

This module will support trainees to:

- Understand the core principles of diversity, equity, social justice, and just transition within the context of career guidance, to create more inclusive career development services.
- Identify the importance of inclusivity in career guidance and how to tailor services to meet the unique needs of underrepresented, vulnerable, or marginalized groups, including individuals facing discrimination, social exclusion, or other forms of inequality in their professional development.
- Explore the challenges faced by diverse groups in the context of Industry 4.0, particularly in overcoming the digital divide, and understand the barriers to labour market inclusion faced by groups such as NEETs, long-term unemployed individuals, low-skilled or older workers, migrants, refugees, persons with disabilities, and other marginalized populations.
- Analyze the impact of social exclusion on professional development and career opportunities for vulnerable groups, and learn how career guidance can be adapted to provide equal opportunities for professional growth in a rapidly evolving digital economy.
- Develop strategies to promote social responsibility and inclusion in career guidance practices, focusing on ensuring that all individuals, regardless of their background or circumstances, can access career guidance services that support their integration into the labour market.
- Learn how to create and implement accessible career guidance tools and materials that cater to the diverse needs of various client groups, ensuring equitable access to information and resources in an increasingly digital world.

Expected Learning Outcomes:

By the end of this module, trainees will be able to:

- Design and deliver accessible career guidance services, materials, and tools that cater to the unique needs of diverse client groups, promoting equity and inclusion in career development practices.
- Assist clients from marginalized groups (e.g., NEETs, long-term unemployed, persons with disabilities, etc.) in identifying and overcoming barriers to employment, particularly within sectors impacted by digitization, automation, and technological advancements.
- Collaborate with educational institutions to promote inclusive training, upskilling, and reskilling opportunities that empower marginalized groups to gain the skills necessary for success in the modern labour market.
- Work with employers to encourage inclusive hiring practices, ensuring that workplaces embrace diversity and create supportive environments for individuals from underrepresented or vulnerable groups.
- Advocate for and implement strategies that foster diversity in the workplace, ensuring that marginalized individuals are given equal opportunities to thrive in the job market and within their professional roles.

Key words:

Social Justice, Digital Inclusion, Marginalized Groups, Inclusive Hiring, Just Transition, Digital Divide

Motivation Questions

- How can inclusive career guidance services help bridge the gap for marginalized groups and ensure they have equal opportunities in a rapidly evolving job market within industry 4.0 ?
- What are the key challenges and opportunities in using digital career guidance tools for clients who may lack access to technology, and how can we ensure these clients are not left behind in the transition to a digital workforce?

o Suggested Learning Content

- Inclusivity and Social Equity in Career Guidance 4.0 - The role of career guidance in promoting diversity, social equity, social justice, just transition, and inclusivity.
- Challenges faced by underrepresented groups in career development within industry 4.0 (e.g., NEETs, long-term unemployed, persons with disabilities, refugees). The digital divide and its impact on career development opportunities
- Strategies for overcoming digital and social barriers to employment in Industry 4.0. Promoting Inclusive Training and Upskilling Opportunities. Promoting Inclusive Hiring Practices and Employer Collaboration to create diverse work environments.
- Tailoring career guidance services to meet the unique needs of diverse populations. Using and creating accessible career guidance materials and tools for vulnerable groups. Empowering clients to navigate the changing job market through tailored guidance, mentorship, coaching, and community career development services

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o Self-evaluation Exercises

Targeted multiple-choice questions will support self-evaluation within the fourth module of the course, helping learners to actively reflect on the educational content of Module 4 and assess their grasp of the key concepts and theoretical foundations.

The six self-assessment questions will focus on the following themes:

1. Understanding core concepts of Inclusivity and Social Equity in the context of career guidance 4.0
2. Barriers to Employment in Industry 4.0 faced by marginalized and vulnerable groups
3. Addressing the needs of marginalized and vulnerable groups and the Impact of digital divide
4. Strategies to ensure access to career guidance services for marginalized and vulnerable groups
5. Promoting Inclusive Training and Upskilling based on future skill needs
6. Develop Inclusive Hiring Practices and Employer Collaboration

V. Module 5: Professional development and Ethical Professional Practice in Career Guidance 4.0

O Learning scheme

Module 5, "Professional development and Ethical Professional Practice in Career Guidance 4.0" will provide career, VET and social inclusion practitioners with the knowledge and skills necessary to foster continuous professional development, ensuring that practitioners remain competent and up-to-date with the latest industry trends, technological advancements, and best practices. In addition, the module will address the ethical dimensions of career guidance practice, emphasizing the importance of maintaining professional integrity, adhering to ethical guidelines, and ensuring that career counseling services are inclusive, fair, and equitable, while maintaining a high standard of service delivery within the Industry 4.0 challenges.

Learning Objectives:

This module will support trainees to:

- Develop high-level cognitive and social-emotional skills, essential for addressing the evolving challenges in career guidance in the context of Industry 4.0.
- Develop a strong readiness for change and an ability to engage with and lead innovation in career guidance practices, ensuring they are equipped to adapt to the rapid shifts in technology and the labour market driven by Industry 4.0.
- Gain a comprehensive understanding of the ethical and quality assurance issues related to the use of ICT-based tools in career counseling, including challenges related to

cybersecurity, personal data protection, and maintaining client confidentiality in digital interventions.

- Enhance their ability to collaborate effectively across sectors (e.g., education, industry, and public policy) to integrate diverse insights and best practices into career guidance, ensuring that services are informed by the latest developments and trends in education, labour markets, and public policy.
- Develop strategies to continuously grow professionally, engaging in lifelong learning to maintain up-to-date knowledge and skills, ensuring they can provide high-quality career guidance services throughout their careers.

Expected Learning Outcomes:

By the end of this module, trainees will be able to:

- Apply ethical standards and data protection regulations in Digital Career Guidance provision (e.g., GDPR).
- Ensure client confidentiality while using digital tools, adapting career guidance services to meet individual client needs and ensuring that all digital interventions are respectful of privacy and personal circumstances
- Provide unbiased, transparent and client-centered career advice, prioritizing the welfare of clients, enabling them to make informed career decisions, and boosting their employability within the evolving Industry 4.0 landscape.
- Develop and maintain a network of stakeholders (including employers, educational institutions, policy makers, and community organizations) that can assist clients in navigating career transitions and accessing opportunities within the Industry 4.0 labour market.
- Support clients to adapt to complex and rapid labour market changes in the labour market due to technological advancements, helping them adapt to Industry 4.0 by providing personalized advice, career development resources, and strategies to overcome barriers to employment.

Key words:

Professional development, Cybersecurity in guidance services, Cross-sector cooperation, Inclusive digital practices, Data protection (GDPR), Digital ethics

Motivation Questions

- How should traditional ethical standards for career guidance evolve to align with the context of Career Guidance 4.0, particularly with the integration of digital tools and technologies?
- In what ways can career guidance professionals maintain ethical standards while adapting to the increasing demand for digital services and tools in the career development process?

o Suggested Learning Content

- Understanding the benefits and limitations of digital career services and blended/ multi-channel service delivery approach in comparison to face-to-face counseling.

- Ethical Standards in Digital Career Guidance - Adapting traditional ethical standards for the digital age, including handling data protection and privacy (e.g., GDPR compliance).
- Principles of cybersecurity and personal data protection in digital career guidance. Safeguarding client information when using remote counseling platforms and digital tools.
- Addressing challenges in maintaining ethical practices while using digital tools like AI-driven assessments, chatbots, and career apps. Maintaining confidentiality in the digital context. Tailoring digital services to accommodate various client needs and access challenges (e.g., digital divide, accessibility)
- Strategies for working collaboratively with other sectors (e.g., education, industry, government) to enhance career guidance services. Building networks of employers, educational institutions, and policy makers to create effective career pathways
- Continuous learning and adaptation for career guidance professionals. Developing critical skills such as digital literacy, ethical decision-making, and innovation in career guidance practices
- Quality standards in Career Guidance 4.0 provision.

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o Self-evaluation Exercises

Targeted multiple-choice questions will support self-evaluation within the fifth module of the course, helping learners to actively reflect on the educational content of Module 5 and assess their grasp of the key concepts and theoretical foundations.

The six self-assessment questions will focus on the following themes:

1. Updating ethical standards in Career Guidance 4.0
2. Safeguarding client data in digital environments, including awareness of privacy regulations (e.g., GDPR).
3. Quality assurance issues related to digital transformation of career guidance services and new labour market challenges
4. Enhancing professional growth and resilience - Develop high-level cognitive abilities that are difficult to automate for quality career guidance 4.0 provision
5. Stakeholder engagement and network building to support career opportunities and transitions for clients to address complex labour market challenges in the context of Industry 4.0.