CGC Roundabout Methodology

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CONTENT

1   Introduction

How can a guidance process be designed with the equal involvement of different actors? What tools can be used to capture work-related digital factors? Why are multi-actor networks gaining relevance in career guidance at present and in the future?

This methodological handbook offers answers to these and other questions. The manual is part of the CGC-DigiTrans project and describes a counselling method, the CGC Roundabout for Digital Transformation. As in a roundabout with several entrances and exits, actors can enter, remain in, or leave the process at different stages in the consultation process as needed. The joint counselling in a multi-actor career guidance process (MACG) is a new feature of this methodology. Possible stakeholders in the continuing education process who can be involved in counselling include employees, companies, and further training providers. The order of entry, the duration of stay in the process and the frequency of coordination depends on the individual needs of the case. The CGC professional coordinates the interaction of the actors within the network.

The counselling process in the CGC Roundabout for Digital Transformation comprises six phases (engagement, assessment, planning, action, result, evaluation). A novelty of the methodology is that new training and counselling needs can be identified during the evaluation phase. The counselling methodology thus strives for an iterative counselling process in a learning helix.

This means that the counselling process not only develops two-dimensionally in a roundabout, but also in a third dimension. The results of the evaluation can lead to a new counselling and further training process at a higher level.

This handbook will help you understand and learn the CGC Roundabouts for Digital Transformation methodology. In addition, the further introduction contains explanations of how the manual works and explanations for a deeper understanding of the methodology. Finally, the introduction outlines the structure of the following chapters.

1.1 How this handbook works

Who is this handbook aimed at?

This handbook is addressed to CGC professionals. To be more precise, it is addressed to professional counsellors, counsellors in further education institutions and counsellors in the HR context of companies who would like to carry out multi-actor counselling for the promotion of digital competences or who encounter such requests.

The manual is structured in such a way that experienced CGC professionals can learn the method independently. For counsellors with a short professional experience, we recommend the online preparation course for the method, which was also developed in the framework of the CGC-DigiTrans project.

Note: In the following, this manual uses the term CGC professionals. Of course, this refers to all the target groups mentioned above. In addition, the manual is addressed to all persons interested in a new guidance method for guidance in networks.

For what purposes can this manual be used?

The manual functions as a theoretical support for the users in learning and applying the new multi-actor counselling method by describing the phases of the method step by step.

It addresses different starting points of the counselling process:

- The guidance process is initiated by an employee,
- The guidance process is initiated by a job-seeking person,
- The guidance process is initiated by a company.

Practitioners will gain an insight into the six phases of the innovative multi-actor career guidance process. For each of the six phases, content, counselling tasks and application examples for companies and employees are described.

For each of the six phases, the handbook also provides tools that counsellors can use for multi-actor network counselling. The tools are listed in a toolbox in the appendix. The individual appendix could also be used as a desk pad for everyday counselling, for example.

Using the table on the method phases, CGC professionals can also locate all their guidance processes in the phases. This orientation in their own counselling process helps CGC practitioners to maintain an overview of several parallel counselling processes. In addition, the orientation helps to select suitable tools for counselling and to assess one's own role (moderating or supporting).

In addition, this manual also serves to reflect on the basic attitudes that are necessary for the guidance method. The handbook provides concrete examples of different attitudes, so that CGC practitioners can reflect on the extent to which they and the network actors in the counselling process already demonstrate these attitudes.

CGC practitioners can therefore use the handbook for the following four purposes:

- Support in learning and applying the new method, underpinned by examples
- Acquisition of theoretical background on which the method is based
- Provision of practical materials and tools
- Reflection on own attitudes and the attitudes of other actors involved in the process

1.2 Understanding the CGC Roundabouts for Digital Transformation

Why is a new counselling method necessary?

Approaches and methods in career guidance focus particularly on the interaction between the individual and the counsellor (see e.g. Lent & Brown 2013, p. 11). Complex trends in the labour market, such as digitalisation and demographic change, are changing the world of work (International Labour Organization 2023, p. 27). This creates a need for guidance at every stage of life (Lent & Brown 2013, p. 23). In practice, the involvement of employers or training institutions in

the counselling process currently takes place outside of the counselling process and often through a reference to corresponding institutions.

Approaches of counselling in community settings and case management show how other actors can be involved in a joint process with a client. Niles and Harris-Bowlsbey (2013, p. 342) describe counselling in community settings as involving the use of the institutions that surround an individual. The counsellor's coordination skills bring together the needs of the person seeking advice and the resources of the community (cf. Niles & Harris-Bowlsbey 2013, p. 337). This coordination competence is more pronounced in case management, which is also applied in labour market integration. The case manager acts as a networker in a complex system and thus coordinates services for his client (Wendt 2018, p. 114ff.). In social work, counsellors made targeted use of networks to involve other complex services such as youth centres, courts, police, homeless counselling that they cannot provide themselves (Bauer 2019, p. 395).

Society and workplaces are changing due to an advancing digital transformation. Basic digital skills are becoming increasingly important, especially at work. At the same time, people with low digital skills risk being left behind (Curatelli et al. 2016, p. 8). This could lead to a "digital divide". Targeted professional development supports learning, expanding and maintaining basic digital skills for the world of work. Vocational guidance accompanies employees in their orientation in working life. Employees bring with them individually developed digital competences. Companies are asking for competences that often do not fully correspond to the digital competences of the employees and the further education offers of the further education institutions. This leads to a loss of benefits from continuing education on all sides.

The new guidance method is necessary in order to bring together all actors responsible for the success of further education in a guidance process against the background of the digital transformation. Through joint counselling in a multi-actor network, the "Roundabouts for digital transformation" method supports the harmonisation of the needs of all actors. By using the method and counselling in the network, the CGC professional strengthens his local networks.

What is the CGC Roundabout for Digital Transformation about?

The following principles map key characteristics of the DigiTrans methodology and are intended to provide a more precise understanding of how to work in counselling processes on digital competence embodied by the methodology.

The DigiTrans methodology aims to foster collaboration among different actors (e.g. CGC, training providers, employers) in local workforce systems to improve guidance service delivery with focus on digital competence.

The methodology aims at improving digital literacy guidance for adults who, due to the ongoing digital transformation and a lack of digital literacy, are at risk of losing opportunities to participate in society.

The focus of the methodology is on digital competences that are generally important in working life as well as digital competence requirements of specific jobs in organisations. At the same time, we

believe that basic digital competences that are important in professional life are also important for participation opportunities in other areas of life.

The focus of the DigiTrans methodology is to work with individual clients or with groups of clients on a micro and meso level. However, we encourage actors involved to use the knowledge gained from multi-actor-collaboration to feed into processes at a meso- and macro-level that aim at improving governance and provision of guidance services as well as training provision for those in need, specifically by identifying and closing gaps in the provision of guidance and training.

Our methodology is built on an iterative process logic. We call this "Roundabout for Digital Transformation." There are different entry points into the process, or the initiative to start a counselling process can come from different actors - specifically, clients seeking advice, employers, or training providers - with the digital competences and skill needs of the clients being the focus of the methodology.

The DigiTrans methodology emphasizes the idea of multi-actor collaboration in counselling processes on digital competences. For this to be optimally successful, certain enabling basic attitudes should be present on the part of the CGCs, but also among the other actors - clients seeking advice, employers and training providers. Due to the central role of CGCs in multi-actor collaboration, we also see it as part of the CGCs' task to promote the development of enabling attitudes among the other actors involved. These enabling attitudes of the involved actors, are described in more detail in the following chapter.

The DigiTrans methodology aims at supporting attitudes of CGCs that benefit multi-actor-collaboration in guidance processes on Digital Competence and motivates CGCs to actively influence attitudes of other actors that are a prerequisite for successful multi-actor-collaboration in guidance on Digital Competence.

The methodology sees CGCs as central actors in the establishment and coordination of multi-actor collaborations in guidance processes. In this constellation of actors, they are the experts for guidance with the corresponding professional competences. Nevertheless, we see it as the joint responsibility of all actors involved to enable and implement multi-actor collaboration.

The DigiTrans methodology acknowledges the different interests of actors involved and ensures a balanced consideration of different interests involved.

What is the CGC Roundabout for Digital Transformation not about?

The founding principles of the method as described above should give an idea about the main characteristics of the method. Before applying the method in guidance practice, it is also important to understand what its boundaries are in terms of target group, guidance topic, digital competences, competence requirements of CGC practitioners and the application of the method in practice:

The methodology is aimed at advising people on digital skills who are at risk of losing opportunities to participate in working life and thus in society in general because of the advancing digital transformation in combination with a lack of digital skills and other problems and disadvantage

factors (e.g., lack of motivation and self-efficacy beliefs, low formal qualification, economic structural change, age, health issues).

The methodology aims to improve digital literacy guidance for people that are part of the workforce, either as active workers or as unemployed persons.

The focus is on digital competences that are generally required in working life or for specific jobs. The digital competences of ICT professionals, i.e., professionals who have the ability to develop, operate and maintain ICT systems and for whom ICT constitutes the main part of their professional activity (OECD 2004, p.219) are not the focus of the methodology,

While the DigiTrans methodology may enable CGCs to reach new target groups in the course of multi-actor collaboration activities, it is not intended to provide specific support on how to reach target groups that are usually not reached well by guidance services.

The DigiTrans methodology does not replace basic qualification and training of CGCs and therefore it is assumed that the methodology is implemented by professionals with professional competence in guidance and/or a relevant qualification.

The DigiTrans methodology as described in this handbook does provide a comprehensive stand-alone approach and provides useful resources to better deal with digital competences in different stages of guidance processes. However, the methodology is not intended to replace but supplement existing practices by CGCs and CGC providers and can be adjusted to different national and local contexts.

Structure of this manual

The second chapter gives an overview about theoretical sources and foundations of the CGC Roundabout for Digital Transformation Methodology. The third chapter presents attitudes actors should bring with them for using the methodology. Chapter 4 deals with the counselling methodology itself by presenting phases and examples of application for each phase. In chapter 5, assessment and suggestions for digital skills development are described. In a comprehensive appendix, the reader learns about the phases of the methodology in a summarising table. The appendix also contains two example cases on the methodology and a toolbox for tools for the individual phases.

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2. Theoretical Sources and Foundations[1]

2.1 Introduction

The CGC-DigiTrans project wants to address the digital divide and mismatch of supply and demand of digital skills in our labour-markets. Therefore, the networking of actors plays a specific role. More intensive cooperation is intended to contribute to providing better advice in the context of digitalisation and continuing education. The Method we develop ("Roundabout for Digital Transformation") builds upon training needs analysis, networking, and the collaboration of actors.

Networking and 'multi-actor approaches' are developing in guidance since resent years (ELGPN 2015; Schiersmann & Weber 2013). We propose to widen the understanding of Guidance as a network activity. In this understanding, networks are part of (career) guidance on different levels. (1) In a specific local area, different actors are involved in offering and coordinating guidance and support structures: Guidance in this understanding is "structurally integrated" (Rämer & Scheffelt 2016). (2) No single actor can provide qualitatively appropriate guidance alone; cooperation and collaboration are necessary to define and offer the desired quality (Schiersmann & Weber 2013). However, at its core, multi-actor career guidance processes are about direct, case-based collaboration involving actors with different backgrounds. In this sense, standards for guidance have been defined: "Working and interacting with the social context: Guidance practitioners are willing and able to use and further develop their personal professional network as well as the societal environment in relation to proper and target-group specific information, cooperation and networks" (nfb 2012, p 12).

Based on these definitions, we specify the approach of multi-actor career guidance (MACG) in this project. Multi-actor career guidance (MACG) comprises different forms of guidance. The common element is always that the relevant network of actors is considered for the guidance of a person or the counselling of a company. This can be done on the *micro-level* by addressing the relevant network, its actors or their offers for an individual guidance process (indirect inclusion), or by including one or more actors of the network within a process of individual guidance, i.e. case-related (direct inclusion).

MACG can also be located at the *meso-level* and designed as counselling at the network level. In this case, CGC practitioners use their knowledge from working with clients (businesses or individuals) to contribute to product or service development with other actors (e.g., providers of educational services, companies). This type of counselling can also be understood as contributing to system development and should be part of the professional competence set (NICE 2016).

> Example of good practice: How case management networks provide complex support in German Job Centres

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Case management is used in Job Centres in Germany to prepare for integration into the labour market. Case management is a structured process in which those affected work together and support resources are economically networked and provided (Göckler & Jäger 2014). Networking permeates the work in the Job Centre at various levels. At the micro level, the individual case managers are part of personal networks. At the same time, the Job Centre itself as an organisation is at the centre of a network. If necessary, the case manager can therefore also draw on the other network partners that exist at the meso-level around the Job Centre (Göckler & Jäger 2014). Other network partners provide complex specialist support services such as addiction services, homeless services, childcare support services and other services.

2.2 Roundabouts for Digital Transformation as Learning Helices

The CGC-DigiTrans project is proposing a participative process inspired on the one hand by successful innovative techniques in the educational context such as the "learning helix" and techniques of collaborative educational coordination on local and regional level. The metaphor of the learning helix was initially developed and studied in learning research, especially for individual learning (Kolb 1984; Klippert 2014; Petterson 1995). However, the model can also be applied to a learning process at the level of cooperation between different actors (inside or outside an organisation) (Chen et al. 2021; Kolb et al. 2000).

Networks in basic education and literacy

"With the National Decade for Literacy and Basic Education 2016-2026 (Alpha Decade), the Federal Government and the Länder (in Germany) have set themselves the goal of reducing the extent of low literacy among adults in Germany and improving the level of basic education. While the Länder are expanding the structures for adult literacy and basic education in line with their own needs, the BMBF (Ministry of Education and Research) is funding research and development projects "to give innovative impetus to adult literacy and basic education". The overarching goals are "to sustainably strengthen the networking and cooperation of the relevant actors in general and vocational continuing education in the field of adult literacy and basic education at the regional level, to expand counselling and offer structures and to create more transparency about existing offers and funding instruments (...). To achieve these goals, the BMBF supports the establishment and expansion of basic education networks in model regions. Where they exist, these networks should build on existing regional network structures in the field of adult literacy and basic education" (own translation, source https://www.ueberaus.de/wws/neue-foerderrichtlinie-der-alphadekade.php).

We have chosen the metaphor of a "roundabout" to signify that multiple actors can enter, stay in the loop, and leave the conversation as required or needed. In various settings (virtual, hybrid or in-person; on "neutral ground" or "on site"), an initial conversation between (employed or unemployed) worker and CGC professional is followed by sequences of interactions between worker, CGC professional, VET providers and organisations' HRM specialists. The exact order, frequency and participants are to be determined in the process with the CGC professional initially to act as a "coordinator". The ultimate aim is to equip the client with the ability to act as his/her

own network pilot. The learning effects of such roundabouts constitute an upwards helix, which will also result in smoother and swifter process as local communities of knowledge and practice are forming and particularly CGC practitioners become ever more competent brokers of local expertise and managers of participatory procedures.

In addition to the primary aims of overcoming knowledge gaps regarding local needs and opportunities and facilitating contact and interaction between workers, HRM and VET to create better matches of individual needs and existing opportunities; this process is geared to create opportunities for innovation for both companies and providers of VET. VET may find ways of responding to training needs in a more tailored way. Companies may find ways of utilising enhanced digital literacies in workers for innovation in administration and production.

2.3 Structure of theoretical roots

The process model "Roundabout for Digital Transformation" describes counselling as a cooperative activity between different actors (Multi-Actor Career Guidance). In this context, networks are a special form of addressing problems (cf. Crosby & Bryson 2005). In today's complex societies, they are an important attempt to deal with issues that cannot be solved satisfactorily either individually or within a closed organisation, from different perspectives and with different professional competences in a collaborative way.

In the understanding of the approach developed here, counselling goes beyond "one-to-one communication" and specifically integrates - at appropriate points - other contact people. The requirement for this is that counsellors and other relevant parties are connected and that counsellors have a broader understanding of their role than simply carrying out conversations. In the NICE (2016) competence model, this was referred to as "systems interventions".

The use case focused on here is counselling on issues of further education in the context of the digital transformation of the world of work. Thus, it is possible to relate the described model to a concrete context and describe how innovative procedures can look like in terms of a win-win-win strategy for individual guidance seekers, companies, and training providers.

Important theoretical and conceptual reference points for this approach are the following:

- In systemic counselling and coaching, personal problem situations are always considered in their context.

- In social work, networking to deal with complex problems has become more important for a long time.

- Specifically, procedures have emerged in "case management" in which the counsellor organizes the resources necessary for implementation.

- In a company context, counsellors (HR counsellors as business partners) are understood as actors who act between the involved agencies and promote joint problem solving.

- Also, it is possible to identify relevant streams of discussion within career guidance.

Systemic counselling and coaching

In systemic career counselling and coaching, the attention of the CGC focuses not only on the individual factors but also on the factors that - in the context - impact the individual directly and indirectly in a complex set of influences. The individual career choices are seen as embedded into the context where individual factors such as educational level, past experiences, personal aspirations, digital knowledge and attitudes are influenced by systemic factors such as social norms and pressures, organisational background, labour market policies, work digital transformation. We believe that systemic approaches require CGC to adopt a wide lent that situates the individual in a context to address the many challenges of career development in times of digital transformation.

Among the postmodern theories of career development, the Systems of Theory Framework of career development (STF - McMahon & Patton 2021) offers a metatheoretical overview that drives the practitioners in their daily work with its principles and practical suggestions. The STF is conceptualized as a systemic map that includes the individual, the social and the environmental-social systems. These systems are interrelated and interact recursively over time. The temporal dimension that includes past, present and future emphasizes how everything changes and evolves in the systems.

From a practical point of view in the STF, narrative approaches and storytelling as in the My System of Career Influences (MSCI; McMahon & Patton 2021) has a prominent role in understanding how clients make sense of their experiences.

> Practical takeaways from System Theory
> - Focus on individual factors such as educational level, past experiences, personal aspiration, digital knowledge, and attitudes but also acknowledge that these individual factors are influenced by a complex set of systemic factors such as social norms and pressures, organisational background, labour market policies and digital transformation.
> - Using narrative approach and storytelling to understand clients' experiences by analysing the interactions of the individual, the social and the environmental-social systems over time.

Networking

There are no doubts that especially in times of difficulties, networking can offer significant support, maximize resources and efforts for finding new solutions and be more effective and succeed. Networking with organisations, networking with employers, advocacy for unemployed people and marginalized population are among the strategies recognised as significant in building a safeguard net around workers (Drosos et al. 2021).

Practical example: Regional continuing education networks
Regional continuing education networks in Germany show that continuing education is an exciting topic for cooperation in networks. Regional CET networks are networks of CET stakeholders, companies (especially SMEs) and other labour market stakeholders. Together they enter into cooperative ventures in order to increase participation in CET and to carry out CET efficiently. Further training needs on topics related to transformation processes (digitalisation, demography, decarbonisation) are recorded and, if necessary, lead to the conception of new further training offers. The regional CET networks also provide neutral advice on CET (Federal Ministry of Labour and Social Affairs, n.d.).

Practical takeaways from Network Theory

- Networking with organisations, networking with employers, advocacy for unemployed people and marginalised population are important strategies in building a safeguard net around workers.

- CGC creates favourable conditions by building up a net that provides external support to achieve new learning that enables options for the clients tailored for their needs and makes stakeholders more committed.

The notion of scaffolding underpins these strategies. Having its roots in the educational field (Wood et al. 1976), typically scaffolding requires providing external supports to achieve new learning. In our case, it means to build a net able to guide the career development progress of the client in a sensitive environment. The work done by CGC creates favourable conditions for clients' progressions in the work environments: Offering new, affordable options tailored to their needs and involving stakeholders more closely in digital transformation collaboration will play a preventative and inclusive role in maximising digital transformation opportunities for all.

Case management

The case management approach in the field of career guidance and counselling, education and social work is an integral and holistic approach, which focuses on the client's needs through coaching and guidance. The method is evidence-based for target groups with more than average barriers toward becoming an active citizen (meaning in regular work, by participating in education, by becoming self-employed or by participating actively in society). An integral and holistic approach means that it covers individual levels of interaction, organisational goals, as well as local and regional service levels by taking into account stepwise the level of competence and self-management attained of each individual as a starting point; further development of specific coaching and guidance skills; demonstrating outcome measures and feedback to improve the effectiveness of measures taken (good governance); establishing a joint focus on the client group for all organisations and stakeholders involved, thus contributing to mutual collaboration and fine-tuning of services. Case management in that sense includes a systems approach as well as a networking approach to guidance service provision.

Practical takeaways from case management

- The case management approach embodies a system and a networking approach in guidance.

- It represents a holistic approach, which focuses on the client's needs covering the individual levels of interaction, organisational goals as well as local and regional service levels while considering the level of competence and self-management of clients.

- Case management establishes a joint focus on the client group for all organisations and stakeholders involved, thus contributing to mutual collaboration and fine-tuning of services.

HR development

The discussion in HR research is also dominated by the major trends of digitalisation and securing skilled labour (Folarin 2021; Gordon 2021). Such debates already point to the fact that companies and thus also the HR function are not closed systems but depend on changes and conditions in the environment. Therefore, discussions that point more strongly to a necessary contextualization of HR are relevant (Mayrhofer et al 2019). They emphasise national (and local) differences and the dependence on other institutions in the company environment (trade unions, local labour markets, education). They argue that based on this, the role of HR is changing. Cooperative networking can be a relevant strategy for action in this context - depending on the respective (national) culture.

In the context of human resource development (HRD), various approaches have been developed in recent years that can contribute to the theoretical foundation of our model. We pick out approaches here that have conceptually changed the role of HR and contribute to HR not (any longer) being understood as a simple line task, but as an overarching, and strategic service in the company.

Talent approaches focus in particular on the question of how employees can be recruited, developed and retained (Piech 2016; Singh 2021). Regarding the approach, classic tasks of HR development are summarised, transferred into stringent processes and linked to the strategic question of the company (identification, development, promotion, retention, winning back). Significant for our context is the question of how the group of talents is defined and limited. Is it exclusively academic "high potentials" or employees at all qualification levels (Thom & Nesemann 2011). From a career-critical perspective, the question can be asked who has access to such talent promotion and who is systematically excluded. In this regard, critical contributions on "Career Development and Inclusion of All" or "Career Development, Equity and Privilege" can be found in the collection of texts by Shuck et al. (2018).

Practical takeaways from talent management

- Environmental changes and partners are more likely seen as important for companies in the today's labour market and in the context of digitalisation.

- The talent management approach in companies focus on the whole live circle of employees.

- When counsellors, training providers or other external actors cooperate with companies, the focus should be on the question of an inclusive talent concept.

- External partners should know what they can offer to the companies HR needs, like identification of training needs or providing training according to actual changes in the workplace.

The business partner model is influential for the design of HR function and HR processes (Ulrich 2008; 2012). The persons responsible for HR differentiate their tasks, are in closer contact with the various actors (management, employees, external providers) and professionalise their performance in order to promote and secure the company in terms of employee resources. Thus, HR can be understood as an actor who acts between the involved agencies and promotes joint problem solving. HR tasks in this context should be linked as closely as possible to the company's strategies and be brought about through close contact between HR experts and line managers. In this concept, line managers will have their own, more pronounced HR function. It is stated that HR work takes place in specific areas of tension, e.g. between "Business and People", "Organization and Individual", "Outside and Inside", "Strategic and Administrative" (Ulrich et al. 2012, p. 25f.), whereby - from our point of view - the aspects "Outside and Inside" and "Business and People" are particularly relevant. Under the aspects of the current labour market development, demographic change and the changed expectations of younger generations towards employers, questions of "People and Culture" are addressed, which are becoming more significant with a view to digitalisation and shortage of skilled workers. The central position of employees in the digital transformation is also a concern of our project.

Career guidance and counselling

Compared to other fields, vocational career guidance and counselling (for adults) often focus on a one-to-one counselling situation. Approaches that go beyond this setting and develop new conceptualisations, where a professional and a client work with other stakeholders, should be developed and evaluated. Collaboration with others and the integration of the environment into the counselling work can add new quality and better solutions for clients.

In recent years, reflexive, narrative and biographical approaches to counselling have come into focus. At the same time, access to institutional services, practical help and support (information, promotion, further education) continue to play an important role, as these kinds of interventions help people to reinterpret their resources and possibilities, to gain confidence in themselves and to realise concrete changes. This is particularly true for people who may previously have low literacy and skills (Weber 2021; Barnes et al. 2016; CEDEFOP 2016; OECD 2022).

The following approaches can be identified:

- Recognising the importance of environmental/contextual knowledge in career design and counselling (Kang & Gottfredson 2015; Inkson & Elkin 2008),

- Counselling in communities (Niles & Harris-Bowlsbey 2013) and near the workplace (Thomsen 2012),

- Career guidance and outreach programmes (Watts 2001),

- Multi-professional career guidance (Nykänen et al. 2012),

- Continuing education guidance in companies (Dobischat et al. 2008; CONNECT! 2023; Zick-Varul & Weber 2023).

Example: Career guidance in communities - the collective turn
Thesis: The ones that are most in need of career guidance are the ones that are least likely to turn up for career guidance. Guidance can take place on or near the job floor - guidance practitioners can visit companies and offer support where the people are (not in an office, but in an ad hoc situation). "The physical movement influenced the career guidance practice: instead of consisting of individual, private dialogues it became a more shared and collective practice largely centred on 'a career guidance wall' featuring job advertisements in the lunchroom. The function of the lunchroom as a place for taking collective breaks influenced the career guidance, which could no longer insist on the establishment of a private sphere in the new place". Career guidance can become more collective, working with a number of employees listening, asking and contributing at the same time. "There is a dialectic element at play here between the influence of the location on practice and the influence of practice on the location". People change their perception of the contribution by the career practitioner. It can be a practice, where colleagues can support colleagues in their community (company). "Poul: I've helped loads of my colleagues to apply for new jobs, and it's been very rewarding to talk with them about this. We talked about it a lot. Flemming went to an interview the day before yesterday, for instance. I had a chat with him yesterday. We talk a lot about who will get a new job and who we think will fail to do so. A good deal of the day passes like that. Rie: I see … Do you help each other with ideas about where to look? Poul: To some extent. For instance, if we spot something in the newspaper. Yesterday I told Flemming that he ought to look for a job at the driving centre – I know they're often looking for new staff. He could try at least. He likes gardening work and cutting grass, and that's how we help each other. It must be pretty sad to work somewhere where you can't talk to anyone. I wouldn't like to work at such a place. (Interview with employee at a factory)" (Thomsen 2023; Thomsen 2012; Thomsen 2017)

All these approaches are about bringing guidance closer to people's professional environment. This makes it necessary to see career development and career as related to environmental and psychological factors. Inkson and Elkin, who elaborate this connection, also emphasise that the practical combination of both perspectives can be challenging (Inkson & Elkin 2008). Approaches of counselling in community settings and case management show how other actors can be involved in a joint process with a client. Niles and Harris-Bowlsbey (2013) describe counselling in community settings as involving the use of the institutions that surround an individual. The counsellor's coordination skills bring together the needs of the person seeking advice and the resources of the community (cf. Niles & Harris-Bowlsbey 2013).

In addition to the objective environmental perspective, the individual's subjective interpretation of their own biography is therefore important in counselling. Weber (2021) describes four strategies of active environmental adaptation (interpretation of the environment, active search for a

compatible environment, use of the environment as a resource for one's own advancement, active adaptation of the environment) show how adults with low qualifications influence their environment and actively deal with it to gradually realize their motives and goals. Support and counselling involving various actors from the client's context is meaningful for all four paths.

Recognizing individual reflection and reflexivity as an important means of navigating a more fluid and individualized world (Bauman 2000), it could thus be argued that institutions and institutional supporters are still important, even if neoliberal tendencies undermine them. Furthermore, reflecting on institutional constraints and opportunities and developing a critical awareness of such influences (by the individual) could be understood as part of a biographical competence as described by Alheit and Dausien (2000).

Finally, influencing better institutional framework conditions can also be part of the professional role of supporters and counsellors. System competence aims for counsellors to further develop the networks and systems (education, occupation, employment) as part of their practice and enrich them with their experience and knowledge (NICE 2016). In such a broad conceptualization, career guidance and counselling for adults can be understood as a mechanism that contributes to the further development of the framework conditions at institutional level, so that individuals seek and find more and better opportunities that correspond to their internal resources and improve them in the sense of empowerment.

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3. Enabling Attitudes for Multi-Actor Collaboration in Guidance on Digital Competence Needs[2]

The DigiTrans methodology is based on the idea that guidance on digital competence delivers better results when multiple stakeholders work together in the guidance process. We focus on the following actors: Career Guidance Counsellors (CGC), learners (workers and unemployed persons), employers, and training providers. In this section we look at the attitudes of these groups of actors and describe what attitudes the actors involved should ideally have to ensure a well-functioning multi-actor collaboration in guidance on digital competence.

Attitude in context of this methodology means "A learned tendency or readiness to evaluate things or react to some ideas, persons or situations in certain ways, either consciously or unconsciously. Attitudes are underpinned by values and beliefs and have an influence on behaviour." (UNESCO-IBE 2013, p.6).

When looking at attitudes that are important for successful multi-actor career counselling, a distinction can be made between two levels - cross-actor attitudes and actor-specific attitudes. Cross-actor attitudes refer to fundamental attitudes that should be present in all groups of actors involved in order to achieve successful multi-actor career counselling. In our view, these include the following attitudes:

- Belief in the effectiveness of multi-actor career counselling.

- Openness to participation in multi-stakeholder career counselling processes.

- Interest in the perspectives and knowledge of other stakeholders.

- Willingness to critically reflect on own patterns of thought and action.

There are also a number of stakeholder-specific attitudes that are important in connection with successful multi-actor career guidance. This refers to attitudes that are considered specific to a group of actors due to their fundamental characteristics and their role in the multi-actor career counselling process.

In developing the formulation of the different relevant attitudes, we were guided in part by existing competence profiles for CGCs. To a large extent, the attitudes were derived from the conceptual framework of the DigiTrans methodology against the backdrop of processes of social change (digital transformation, demographic change), attempting to answer the guiding question: what attitudes are needed among the actors involved so that multi-actor collaboration in guidance on digital competence can work in practice?

In the following, for each group of actors, depending on the assigned role in the multi-actor collaboration, attitudes are described that, in our view, should be present or should be developed for each group to make the DigiTrans methodology work. In addition, desired actions in frame of

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multi-actor career guidance processes corresponding to the attitudes for each group of actors are described.

3.1 Attitudes of CGCs

As already stated in the principles of the methodology, functioning collaboration in guidance processes is a shared responsibility of all actors involved. Given their expertise in guidance, we see CGCs as the key coordinating actors when it comes to initiating and implementing collaboration processes. This includes, among other things, efforts to support the development of the necessary attitudes among the other actors, if these are not already in place. From our perspective, there are different areas of attitudes that are relevant on the part of CGCs: The specific role that CGC take in this constellation of actors, the area of networking and collaboration, employer orientation, use of digital technologies in guidance, and guidance on digital competences. While the attitudes for CGCs described below are intended to be helpful in the implementation of the method, CGCs should make sure to respect national codes of ethics for CGCs or other related professions when applying the method.

Role of CGCs in multi-actor collaboration:

Depending on the specific context and the design of the counselling service in which CGCs work, multi-actor collaboration in counselling processes with other actors, especially employers, can mean a change in the role of CGCs. In some instances, the requirements of multi-actor collaboration or the concept of the DigiTrans methodology are already considered in competence profiles of CGCs. Examples include the social systems interventions task area as part of the European Competence Standards for the Academic Training of Career Practitioners (NICE 2016) or partial aspects of the IAEVG competences for CGCs (IAEVG 2018), such as community capacity building. Concerning the role of CGCs in multi-actor collaboration, we consider the following attitudes of CGCs as important:

- CGCs show a desire to implement multi-actor collaboration in guidance.

- CGCs acknowledge their leading role in multi-actor collaboration in guidance.

- CGCs seek to support employees and job seekers who are at risk by digital transformation.

- CGCs express commitment for the provision of more inclusive guidance and training offers.

- CGCs respect clients' right to self-determination in multi-actor collaboration guidance processes.

Desired actions resulting from the attitudes:

- CGCs develop scenarios and processes to implement multi-actor collaboration in guidance in their national and local context.

- CGCs take action to foster development of attitudes enabling multi-actor collaboration of other actors involved.

- CGCs collaborate with employers and training providers in operational work on specific counselling cases.

- CGCs collaborate with employers and training providers to develop better, and more inclusive guidance and training offers.

- CGCs ask for the consent of clients before any collaboration with other actors on specific cases.

Networking & collaboration

This area considers the fact that a basic prerequisite for successful collaboration processes is the establishment of sustainable relationships with actors in the sense of network structures, and that CGCs play a central and active role in establishing these relationships and the resulting networks. Furthermore, in the DigiTrans methodology, CGCs also assume a central coordination and facilitation function in the implementation of concrete multi-actor collaboration processes, such as a case conference. In our view, on the part of the CGCs, the following attitudes are important for building networks and/or implementing collaborative guidance processes:

- CGCs display belief in multi-actor collaboration in guidance on digital competences and that collaboration between the different actors can achieve goals that would be impossible or require more effort to achieve alone.

- CGCs acknowledge different interests of actors involved in multi-actor guidance.

- CGCs assume responsibility for the implementation and coordination of multi-actor-collaboration in guidance.

- CGCs respect capabilities and limitations of actors involved.

Desired actions resulting from the attitudes:

- CGCs develop and apply stakeholder appropriate marketing and promotion strategies.

- CGCs try to identify common interests between the perspectives of clients, employers, and training providers in supporting employees and job seekers at risk by digital transformation.

- CGCs strive to ensure a balanced consideration of different interests and make conflicts of interests transparent.

- CGCs initiate relevant cooperation structures that need to be built up and maintained (networking).

- CGCs coordinate communication between the service, its clients and other stakeholders.

- CGCs make efficient use of the time resources that employers and training providers contribute to collaboration processes.

Employer orientation

Depending on the concrete context and nature of the guidance service CGCs work in, a direct involvement of employers in guidance processes might be a new approach in guidance practice. Therefore, we introduce employer orientation as part of enabling attitudes for multi-actor collaboration. When looking at the roundabout idea, employers are important in guidance processes. They can participate in two ways. When aiming to improve the digital competences of workers needed in the workplace, employers are an important source for information in relation to the digital competence needs of their employees. However, in frame of the CGC Roundabout for Digital Transformation employers can also be the starting point of the guidance process and take the role of the client in the guidance process. Considering the DigiTrans methodology, we consider the following Attitudes of CGCs in the area of employer orientation to be important:

- CGCs recognise collaboration with employers as an opportunity to reach target groups that would usually not make use of guidance offers.

- CGCs regard exchange with employers as a first-hand opportunity to learn about digital competence needs in organisations.

- CGCs perceive support of HR processes of employers as a chance to enhance training opportunities and the quality of trainings for employees at risk.

Desired actions resulting from the attitudes:

- CGCs learn about HR management practices of employers and challenge practices of HR management that no longer seem appropriate in times of digital transformation and shortage of skilled workers.

- CGCs seek to convince employers to not only focus on specific short-term organisational (digital) skill needs but also on the development of transversal skills of their current or future employees because this will improve their long-term capability and motivation to acquire skills needed by the organisation.

- CGCs stimulate support especially for employees who are in danger of losing out due to the digital transformation.

Digital technologies in guidance practice

Digital technologies have great potential in the field of educational and career guidance to reach new client groups and provide more effective and efficient guidance services. At the same time, it is crucial that the use of digital technologies in guidance services is implemented in an inclusive way and does not lead to a situation where the use of guidance services by clients with a lack of digital competence or digital infrastructure, is restricted. From our perspective, the following attitudes on the part of CGCs are relevant here:

- CGCs show openness to digital change and the application of digital technologies in guidance provision.

- CGCs are aware that clients with low digital competence may have difficulties to access digital guidance offers.

Desired actions resulting from the attitudes:

- CGCs critically examine the opportunities and risks for themselves as well as their clients.

- CGCs to adapt own actions to different situations/settings.

- CGCs reflect about own digital CGC services and their effects in different contexts.

- CGCs use digital technologies for the benefit of their clients while safeguarding accessibility of their services for clients with a lack of digital competences and/or digital infrastructure to access digital services.

Career guidance on digital competence

This area considers the fact that the digital transformation has encompassed all areas of life and brings with it new competence requirements in professional life and beyond (CGC-Digit-Trans Report) (Weber & Schulz 2023). Accordingly, this area of competence should be highlighted in every guidance process, regardless of whether it is a specific guidance process on digital competence or whether the reason for the guidance is different. In addition, we believe it is important, with regard to the idea of life-long learning, not to focus exclusively on the immediate (digital) competence needs in guidance processes, but also to consider the development of important transversal competences of the clients. Concerning career guidance on digital competence we consider the following attitudes of CGCs as important:

- CGCs internalise the importance of digital competences as a new cultural technique.

- CGCs recognize the importance of learners' transversal competences as a prerequisite for adaptability to rapidly changing (digital) competence requirements.

Desired actions resulting from the attitudes:

- CGCs pay special attention to the digital competence dimension in frame of guidance processes.

- CGCs try to apply counselling methods and support the selection of training offers that foster the development of transversal competences of learners.

3.2 Attitudes of employers

For the implementation of the DigiTrans methodology, two areas of attitudes on the part of employers are central. On the one hand, attitudes of employers against the background of skills shortage and digital transformation, which are reflected in certain practices in the field of human resource management. On the other hand, attitudes of employers towards collaboration in frame of guidance processes on digital competence.

HR in times of digital transformation and shortage of skilled workers

Demographic change is leading to a reduced supply of labour and skilled workers on the labour market, making it increasingly difficult for employers to recruit skilled workers from the labour market. Digital transformation means that professional roles and competence requirements can change very quickly or become obsolete (Weber & Schulz 2023). Both require new approaches from employers in HR management (see also chapter 2 and 5). From our point of view, the following attitudes are therefore important in HR management on the part of employers:

- Employers see themselves as supporters of employees at risk and corresponding training activities.

- Employers seek to better understand (digital) competence requirements of jobs within their organisation.

- Employers acknowledge that shortage of skilled workers makes re-, side-, and upskilling of existing employees as well as on-the-job acquisition of missing competences by new employees more important.

- Employers acknowledge that the development of transversal skills results in a better capability of their employees (and therefore the whole organisation) to better react to changing competence requirements.

Desired actions resulting from the attitudes:

- Employers respond to skill shortage by prioritising re-, side-, upskilling of existing employees.

- Employers respond to skill shortage by displaying openness for on-the-job acquisition of (digital) competences by new employees.

- Employers devote resources to identify and react to competence requirements as a result of digital transformation processes within their organisation.

- Employers support the learning and qualification process of their employees by providing necessary resources (e.g. time off work, financial support).

Collaboration

Regarding the willingness to participate in collaboration processes, it is important that employers regard this participation as an opportunity and beneficial, for instance because it offers the opportunity to get in direct contact with potential applicants. In our view, the following attitudes towards collaboration are therefore important on the part of employers:

- Employers acknowledge that challenges arising from trends in society and on the labour market (digital transformation, demographic change) can be better overcome when collaborating with CGC services.

- Employers acknowledge that involvement in guidance processes of individuals is an opportunity to learn about detailed competence requirements of specific roles in their organisation.

- Employers regard their involvement in guidance processes of clients who are no current employees as a chance to get into contact with potential applicants or future employees.

Desired actions resulting from the attitudes:

- Employers proactively seek the support of CGC services.

- Employers actively participate in guidance processes and collaborate with CGC services and other stakeholders.

- Employers openly share organisational information, for instance (digital) competence requirements within their organisation.

3.3 Attitudes of training providers

When implementing the DigiTrans methodology in collaboration with training providers, we see two areas of high relevance: On the one hand, the willingness to develop training offers that meet the needs of the learners and employers and, on the other hand, the willingness to participate in collaboration processes within the framework of guidance on digital competence.

Needs based development of training offers:

In this area, the importance of training providers developing and delivering training that meets the needs of learners is emphasized. Regarding the DigiTrans methodology, this means to develop training offers that are aimed at target groups that currently lack the necessary level of digital competence and/or the digital infrastructure to access different digital learning offers (e.g., online learning platforms). At the same time, it would be important to provide learning opportunities that strengthen the participants' transversal competences, which are essential for lifelong learning and the ability to better respond to ongoing changes in (digital) competence requirements.

- Training providers are aware of the risks of the digital divide.

- Express commitment to the provision of inclusive training offers for learners with low digital competence or a lack of digital infrastructure.

- Training providers demonstrate openness for tailor-made adaption of training offers.

Desired actions resulting from the attitudes:

- Training providers devote resources to assess the entrance level of digital competences of learners.

- Training providers respond to identified competence needs of clients (individuals and companies) by provision of tailor-made training offers.

- Training providers make use of digital learning technologies to deliver trainings more effectively and efficiently while considering that clients may initially lack the resources (in terms of competences as well as available technical infrastructure) to access digital and/or blended learning offers.

- Training providers seek to create learning offers that foster transversal competences and a positive attitude towards (lifelong) learning of their clients.

Collaboration:

Regarding the willingness to participate in collaboration processes, it is important that training providers regard this participation as an opportunity and beneficial, for instance because it offers the opportunity to better learn training needs of potential clients. In our view, the following attitudes towards collaboration are therefore important on the part of training provider:

- Training providers show willingness to adapt their practice to needs of employees or job seekers at risk by digital transformation.

- Training providers appreciate MACG as a chance to better learn the (digital) competence needs of their clients (employers & employees).

Desired actions resulting from the attitudes:

- Training providers actively participate in collaboration and exchange in frame of guidance processes of individuals.

- Training providers respond on advice to improve their training methodologies and training offers in general.

- Training providers exercise transparency if learning offers do not meet the needs of a specific target group and/or specific clients.

3.4 Attitudes of individual learners

When implementing the DigiTrans methodology with digital learners we see two areas of high relevance: On the one hand, the willingness of learners to involve other stakeholders in the guidance process and to actively participate in the collaboration process themselves. On the other hand, learners' attitudes towards the development of digital skills.

Collaboration:

Regarding the willingness to participate in collaboration processes, it is important that learners accept to involve other actors in their personal guidance process. This involvement shall be considered within the trusting counselling relationship (e.g. the CGC professional and the person should clarify the extent to which insight into the personal situation is given to other actors). In our view, the following attitudes towards collaboration are therefore important on the part of learners:

- Learners express willingness to involve other actors (especially employers & training providers) in their guidance process.

Desired actions resulting from the attitudes:

- Learners actively participate and exchange their skills needs with employers and/or training providers.

Digital competence development

Regarding development of digital competence, it is crucial that learners accept the necessity of change, are therefore interested to learn about their (digital) competence needs and in general show openness towards the use of digital technologies. In our view, the following attitudes around (digital) competence development are important:

- Learners appreciate to get a better insight in their situation in relation to digital competences.

- Learners accept the necessity of change through constant individual learning efforts as a response to faster changing competence requirements.

- Learners demonstrate openness towards new technologies and are interested in its application.

Desired actions resulting from the attitudes:

- Learners take part in competence assessment procedures and the selection of training opportunities.

- Learners regularly participate in training activities.

- Learners use digital tools and application appropriate to their digital competence level.

> **Reflection on attitudes towards multi-actor collaboration in guidance**
>
> The above formulated attitudes represent the ideal case for successful multi-stakeholder guidance. But are these attitudes realistic? The answer is yes and no. Yes, the attitudes are realistic in so far as we believe that they represent contemporary attitudes, i.e. attitudes that are geared towards current developments in society, the economy and the labour market - in particular the digital transformation and demographic change with a corresponding shortage of skilled workers.
>
> The attitudes expressed may seem less realistic if we look at practice and the attitudes that currently prevail. In practice, we will almost certainly encounter actors who have little motivation to participate in lifelong learning processes, little interest in investing money in employee training, or no interest in developing tailor-made training programmes.

A typical example in the context of educational and vocational guidance is a negative attitude of the client towards the guidance service (attitude towards educational and vocational guidance) or towards the subject of the guidance (e.g. attitude towards learning processes). While in the context of career guidance for employed or unemployed people, one of the essential competences of CGCs is to manage counselling situations with clients who have negative attitudes towards the counselling offer or the resulting options for action, it might be a new challenge to deal with negative attitudes from employers or training providers.

3.5 Attitudes and practical implementation of the CGC Roundabout for Digital Transformation

Attitudes are evaluative in nature, i.e. they imply approval or disapproval of a thing, a person or an abstract idea, and also influence behaviour towards these things. For this reason, we have formulated above attitudes for different stakeholders, which we believe are an important prerequisite for stakeholders' willingness to cooperate in the context of digital literacy guidance processes.

In the following, we want to look at what can be done in practice if the actors involved - in particular employers and training providers - do not (yet) have the desired attitudes. We will look at what strategies CGCs can use, to what extent attitudes can be changed, and what concrete measures can be taken to promote enabling attitudes for multi-stakeholder guidance among stakeholders.

What strategies can be used?

What can we do if, when implementing the CGC Roundabout for Digital Transformation, we encounter stakeholders who do not (yet) have the right mind-set for implementing this method? In our view, there are two basic strategies that can be applied.

The first strategy is simple: focus on employers or training providers who already have the right mind-set in terms of the attitudes mentioned above.

The second strategy is more complex. It consists of setting up activities to influence the attitudes of stakeholders in order to achieve the necessary mind set, which is a prerequisite for successful collaboration.

Can attitudes be changed?

Current research on attitudes is based on a hybrid model of attitudes. This means that attitudes have both, aspects of stability (attitudes are stored in our memory) and changeability (situational evaluation). In practice, this means that when trying to influence attitudes, we should expect resistance, but that change is very possible (Albarracin 2018, p. 302).

From a holistic perspective, attitudes exist in and are influenced and changed by three different contexts (Albarracin 2018, p. 304ff.):

- The person as a whole – referring to the role of personal values, general goals, emotions, linguistic processes, evaluative processes, the life span, developmental aspects as well as the temporal and spatial context.

- The social context – referring to the role of attitudes of others, like message communicators, friends, network members or influences from social media.

- The historical context – referring to the role of generational, historical, and cultural shifts that influence individual evaluations.

Printer company in digital transformation process

Mr. P. is the owner of a second-generation print company that has grown over the decades into a medium-sized business with around 50 employees. He is a man of tradition who likes to keep things as they are and, for a long time, tried to avoid digital transformation of his business. Recently, he has felt increasing pressure from competitors who have already digitised production, sales and customer service. He decided it was time to catch up, and the company's first step was to digitise the production process, which included buying new digitally controlled printers and the software to set them up and analyse technical problems.

While Mr. P. spent a lot of time selecting the most suitable printers, he didn't give much thought to the digital skills his printer operators would need to operate the printers and the control and analysis software. The reason for this was that all the suppliers offered staff training as an additional support service.

During a discussion with the head of the technical team, who is planning the training, the manager points out that some of the technicians are likely to have problems completing the training or implementing it into the work process. He has looked at the training documentation and concludes that the training requires several basic digital skills that some of the technicians in the team do not yet have.

Mr. P. is unsure what to do. A couple of years ago the solution would have been simple: Dismiss the technicians in question and hire new ones who already have the necessary basic digital skills. However, last year one member of the team retired, and it took almost half a year until Mr. P. could find a suitable applicant. After this experience Mr. P. is reluctant to let his existing technicians go.

One day, while checking his messages on LinkedIn, he came across a post that spoke to him and his situation. The post was about current challenges of employers and the fact that currently many businesses face two major challenges: The digital transformation in society and the economy and a shortage of skilled workers due to demographic change. The post questions established practices of corporate management and, above all, HR management and considers a cultural change in companies to be unavoidable. At the same time, it emphasises that many

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companies, especially SMEs, need external support in order to implement new approaches in HR management.

The article also refers to a new advisory service for companies offered by a career counselling centre. Mr. P. is intrigued and decides to get in contact and arrange a first meeting with a CGC.

The example illustrates well what we are aiming for in this section. We have the level of the person, who brings with him a set of attitudes formed over time in relation to the management of a company and the management of human resources. Developments in the socio-cultural context (skills shortage, digital transformation) put these stored attitudes to the test. Convincing arguments in a social context (a well-founded post on social media) finally lead to the abandonment of attitudes and the search for support.

What could be concrete approaches to influencing attitude change?

In the printing company example, the key activity to change attitudes was a social media post. However, there are a number of other approaches that can help influence the attitudes of potential collaborators in our favour. To support the development of the right attitudes or a change of attitudes on the side of employers and training providers, Career Guidance Counsellors (CGCs) can implement several interventions. Here are some approaches that might be effective:

Pilot Programs and Demonstrations – CGCs can initiate small-scale pilot programs with collaboration partners that already have the right mind-set for collaboration. This will give the possibility to demonstrate the positive impact of collaborative digital competence development. These pilots can serve as proof of concept and encourage broader adoption.

Recognition and Celebration of Success – CGCs can recognize and celebrate the achievements of employers and training providers who have successfully embraced collaboration in digital competence development. This recognition can serve as motivation for others.

The first two approaches thus represent a combination of the two strategies - looking for actors who already have the right mind-set & working to change attitudes.

Education and Awareness Workshops – CGCs can organize workshops or seminars focused on the importance of digital competence in the workforce. These sessions can highlight the benefits of collaboration and provide concrete examples of successful outcomes.

Customized Presentations and Reports – CGCs can create tailored presentations and reports that showcase the specific benefits of digital competence development for the organisation. This can include case studies, statistics, and success stories.

Individual Consultations and Needs Assessments – CGCs can conduct one-on-one consultations with employers and training providers to understand their specific needs and concerns. This personalized approach can help identify areas where collaboration can bring the most value.

Facilitated Networking Events – CGCs can organize events that bring together employers, training providers, and CGCs for networking and discussions. These events can provide a platform for sharing experiences and building relationships.

Feedback Loops and Continuous Improvement – CGCs can establish regular feedback mechanisms to gather input from employers and training providers. This feedback can be used to refine and improve the collaborative approach over time.

Clear Communication of Benefits – CGCs should clearly communicate the benefits of collaboration, emphasizing how it leads to improved workforce performance, employee satisfaction, and overall organisational success.

Advocacy and Policy Support – CGCs can advocate for policies and initiatives that support digital competence development and collaboration between employers, training providers, and CGCs.

Resource Sharing and Toolkits – CGCs can provide employers and training providers with toolkits, resources, and best practices for implementing collaborative digital competence development programs.

Ongoing Support and Relationship Building – CGCs should maintain regular contact with employers and training providers to offer ongoing support, address concerns, and build strong, trusting relationships.

By implementing these interventions, CGCs can play a vital role in fostering a positive attitude towards collaboration in digital competence development among employers and training providers. This collaborative approach can lead to more effective guidance and improved digital competences in the workforce.

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4. Process Model "Roundabout for Digital Transformation"[3]

This chapter aims to describe a process model in a practical way. The innovative character should become clear and many hints and examples for practical implementation are provided. The chapter begins with a practical introduction to the central concepts that form the basis of our process model. Then we explain what we see as the innovative character of the process model.

For a better understanding, the description of the process model is preceded by some basic assumptions. They are intended to point out that this model should be used flexibly in everyday counselling and needs to be adapted to the respective context. In the main part of the chapter, the process model is presented in detail. We describe the role of each actor and how different actors can contribute to the guidance process in a "roundabout" approach. In this part, concrete references to practice are made based on case sketches. References to methods or tools are intended to show concrete possibilities for application.

The following terms and ideas are significant for the method:

Networking with actors. The establishment of practice-oriented networks is the prerequisite for concretely supporting the digital transformation process and enabling further education. Above all, the different perspectives, experiences, and skills of the various partners in the network should be used to achieve concrete solutions to problems for individuals or organizations (especially employers and educational providers).

Roundabout for Digital Transformation. This indicates that the process is open and flexible. The counselling process can be initiated by different actors and in the course of the process other actors from the network can be involved in order to achieve a successful solution to the problem.

Learning Helix. The term "learning helix" is used to refer to the possible positive effects on individuals and actors that can be achieved through the process. According to Kolb et al. (2000) the learning process consists of active experimentation, concrete experience, reflexive observation, and abstract conceptualization. Successful counselling processes in this sense *are* learning processes that can lead to cumulated effects. Individuals can gain new insights (concepts) about their digital skills and learning opportunities through concrete experiences and reflection (micro-level). But the actors can also arrive at new ideas about necessary further developments, e.g., of counselling processes, possibilities of support or further training offers, through cooperation (concrete experiences) and exchange (reflection of observations) (meso-level). Concrete and active experimentation plays a special role in the learning process at both levels. Cooperation in the network should be as concrete and practical as possible to stimulate learning processes.

Innovative potential of the method

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The proposed model contains innovative potential, both conceptually and in the way it is developed, applied, and evaluated.

Multi-actor career guidance (MACG)

Up to now, counselling on career and further education issues has often been individual counselling in which counsellors and clients work alone. Multi-actor career counselling is an extension of the form of work but also a change in the character of the counselling process. The method assumes that none of the actors alone has the necessary knowledge and resources to solve the tasks arising from the digital transformation and the resulting training needs. This is why cooperation is necessary. We see the counsellors as actors who play a central role in the MACG concept, for example by initiating, moderating, inviting, or accompanying.

Case based collaboration

This cooperation should not be abstract, but concrete and case based. New agreements and routines between the actors are necessary for this. Possibilities of short-term and quick communication between counsellors, training providers and employers should be made possible. This goes in line with changes in the perspectives of the actors. Processes can be started by any actor (individual, companies, training providers), CGC practitioners need to be flexible in terms of supporting the different actors (e.g., also a company can be a client). Video technology or on-site visits might be ways to make this possible. The development and maintenance of networks must be more strongly understood and facilitated as part of the work of career counselling practitioners on an operational level.

Change in the results

With the cooperative method, counselling on digital training needs can become more concrete and develop better solutions. Such support aims to achieve success with individual clients (micro-level) and reach people who have had little access to training so far. The goal here is a better "digital inclusion". In parallel, and through longer-term cooperation on the ground, the method promises an improvement of the offers (e.g., more customised continuing education) and the cooperation between the actors (e.g., communication about needs, lack of skilled workers, funding opportunities) (meso-level).

Training needs analysis with reference to digital competences

So far, digital competence needs have been described and communicated rather abstractly. Although there are systematic assessment tools (see chapter 5), they need to be used in a practical way and with individual clients as well as when assessing company needs. Counsellors need to be made aware of such tools and need experience in how to use them. It is also necessary to contextualise quantitatively collected data in the discussion between counsellor and client. To do this, counsellors must be able to address and record concrete and sector-specific needs.

Tools for practical implementation

The described method contains tools and further hints for practical implementation (see appendix). Even though it depends to a large extent on the attitude of the counsellors and other actors whether they live the concept of the "roundabout" (see chapter 3), practical tools are also helpful to organise and document the work. At the same time, we are aware that in practice people often use their own methods and tools and that external guidelines and methodological ideas usually need to be adapted.

Cooperative development, application, and evaluation/assessment

In addition to the aspects that make the Roundabout method innovative, the process of development, application and evaluation will also be innovative. Representatives of the relevant stakeholders will be involved in the development and piloting. Their feedback, their experiences and their methodological approaches are taken up and integrated in the development process. In this sense, this manual is a start and not yet the end point of the method development.

Fundamental considerations on the method

We would like to preface the presentation of the actual process model with some basic considerations.

Organisational or individual perspective

In this model, the conditions for professional counselling apply to an individual setting as well as to organisational counselling. We assume that the establishment of a counselling relationship, the clarification of individual (or organisational) concerns (or interests) and the processing of the question of how counselling can contribute to the solution of an existing problem situation are relevant for both contexts. In the following description, references, examples, and methodological suggestions for both perspectives are integrated.

Digital transformation as a relevant topic

Whether a person or organisation needs or requests counselling with reference to digital transformation cannot (always) be determined before the start of a counselling process. In their professional role, counsellors must take care not to assume that the topics addressed here (digitalisation, digital competences, further education) are the goals of the counselling. Rather, the client (individual, organisation) with his or her interests and problems determine the course and goals of the guidance.

Generic process model as a base

The concept presented here is based on a generic process model. Such models are described and used in many contexts (project management, HRM, organisational development, quality management or individual counselling) (Schiersmann & Thiel 2018; Rübner & Weber 2021 Egan 2014; Ertelt, Schulz & Frey 2022). Theoretically, they refer to the psychology of problem-solving (Complex Problem Solving) (Funke 2012; Funke & Frensch 2017; Dörner 1996). The model we have developed based on such foundations consists of six phases or steps. In each of the phases, the actors involved have different tasks. The number of steps or the exact sequence cannot be

derived directly from theory, but the relevance of the steps is based on empirical research and can be justified on that basis.

Linearity of models and non-linearity or practice

Process models are described linearly, but real processes do not necessarily follow a linear sequence. They are more iterative, step back and forth and unfold differently in each case. There can be leaps as well as regressions. Counsellors adapt their approach to the needs and developments of the client. Aspects from previous or past phases can also become relevant in a certain step (e.g., contracting can be addressed again at a later point in time or aspects of evaluation can play a role at the end of single meetings). In general, it can be stated that such a model should not be tempted to go beyond the needs or possibilities of the client. Empathy and a stable working relationship are important throughout the process to synchronize the approach with the client and their abilities and needs.

Single contacts or counselling processes:

The process described below does not refer to a single appointment between client and counsellor. Rather, several appointments will probably have to take place. In the phases between individual appointments, contacts with other actors can be important in order to generate and fix possible solutions.

Methodological knowledge in line with knowledge about digitalisation

CGC practitioners as the other actors need knowledge about digitalisation for several reasons, as the workplace and job market are continually evolving in response to technological advancements. This includes knowledge about changing job roles, knowledge on acquiring and developing digital skills, local, regional, and global job market trends, digital Job Search Strategies, technological trends impacting industries, lifelong learning and adaptability or cybersecurity awareness and data privacy and ethics: Understanding ethical implications of digital technologies and ensuring data privacy (cf. Weber & Schulz 2023).

The process model with different phases

The process model consists of six phases. This has been determined as a result of the work in this project. At this point, we will refrain from explaining the chosen phases in their sequence. Within each phase, a detailed description of why these aspects are important and which tasks are necessary or useful for the counsellor, the client, and other actors to work through the individual phases is given below. In addition, an example will be described for each phase in the process to illustrate the procedure and the development.

Table: Phases in the process
1. Engagement (interest, initial situation, contracting)
2. Assessment (situation, self-assessment and awareness)

3. Planning (based on needs analysis; senses of direction, goals, solutions, orientation and planning, agreements)
4. Action (activities, implementation)
5. Results (achieve, record and document results)
6. Evaluation (reflect and evaluate the process)

Figure 1: The helix model of CGC - Roundabout for Digital Transformation

We assume that phases 1-4 are the focus of counselling activities. The further phases 5-6 are closely linked to the implementation of further training and other activities and therefore go beyond counselling. The counsellor has a more accompanying and supporting role in these phases. From the perspective of the CET providers, the implementation of training measures is particularly relevant, but the design of the measures and the guidance of the participants in the learning process is not part of the guidance model developed here. From the employers' perspective, knowledge transfer - i.e., the use of learning outcomes in the work context - is the central perspective of assessment or evaluation. In this sense, their feedback to the guidance as well as to the CET is relevant, but again goes beyond the process of guidance and its evaluation.

Creating good practice:

We integrated practical tools or ideas, how practice can be created. In the chapter, short information and introductions to such examples or instruments are given. The appendix provides more detailed information and descriptions.

Collaboration with network partners is of particular importance throughout the entire process. Networking with other stakeholders (companies, continuing education providers, counselling services) is now a common and important prerequisite for achieving goals related to securing the shortage of skilled workers and continuing education. The analysis of one's own relationships with other organisations is an important prerequisite for their inclusion in counselling processes.

Creating good practice:

Name of the instrument: System-environment analysis
Aim: Outlining and rating relationships with other organisations.
Short description: System-environment analysis can be used to outline an organisation's relationships with other organisations. The system-environment analysis shows the direct relationships of the organisation but does not illustrate networks. It can be used in the DigiTrans method, for example, to clarify operational relationships with training providers, which can then in turn be brought into the multi-actor consultation process. Furthermore, counsellors can also use this method to reflect on their own relationships and cooperation (see appendix 1).

To illustrate the use case, we introduce fictitious examples into the description of the method phases. With the help of the persona, the individual phases are filled with life in an exemplary way.

Example: Individual Client Julia M.

Julia is 51-year-old, has a supportive family, highly experienced, highly educated (university degree). She had a successful career in a public library for over 20 years, but then she became unemployed when she was 44. At that time a relevant shift in the branch led to a reduction in staff and the public library she worked for was closed down. Due to family Julia decided not to move to another city where she had the offer of a job in a university.

During her employment she did a course through the PES and found a new job in a medium-sized company at a welcome desk. Since then, she had some changes and mostly terminated contracts (flex worker). Her experience is mainly in temporary employment in lower skilled jobs outside her primary branch. Now her skills have aged with her, she feels that they are not so much future proof anymore. She asks her nephew when there are problems e.g., with computers.

Risk factors are low self-esteem, no recent experience in using IT programs as they are used in offices as well as in libraries, low self-efficacy beliefs, some resistance to learning, she feels excluded and her expectations are decreasing. Her actual employers (mainly staffing bureaus for flex workers) did not offer her much support in dealing with these issues or if they did, she did not see how it could be useful for her. She felt discriminated for being a flex worker. She is ashamed about her ''down-going'' career and lack of career development, she is strong in looking for jobs and succeeds quite regularly, but always for a short time, she is motivated for steady work, has

experience in shift work, but now she is not able to work in shifts, but she does not have so many options to change this. She has some not so positive experiences with CGC at the PES, because the services were impersonal, protocolised and mostly online, she prefers F2F contacts.

Julia is very much willing to re-enter the labour market in her primary field of education or in another stable employment, but the labour market demands are not matching, not only regarding digital, but also other skills. She is looking for security. In one word: she suffers from loss aversion. A friend told her about a new guidance service that supports people to catch up with digital skills. She is a bit sceptical at first but with the support of her friend she agreed to an appointment for a counselling session.

Example: Company of Mr. E., medium-sized company

Mr. E. is the owner of a medium-sized, family-run company. He took over the business from his father, who held on to tried-and-tested manufacturing processes and procedures for a long time. While digitization has progressed well in the commercial area of the business, the machines in the production area are still of a purely conventional nature. However, since Mr. E. wants to continue to grow with his company and produce in larger quantities than before to remain competitive, he decides to purchase new production machinery. Mr. E. wonders whether the previous skills of his employees are sufficient for the new machines.

In the following sections, the counselling process is described in six phases. The perspectives "counselling of an individual client" and "counselling in the context of a corporate client" are addressed in each phase. We assume that the phases can be described analogously for the individual context and the organisational context. In counselling practice, the phases have their own particularities and different methods are used. Counsellors working in the individual context or in the organisational context need specific knowledge and have different backgrounds of experience.

The structure of the following phases is always the same. First, an overview of the phase is given in a table. This is followed by a short description and a presentation of the roles (counsellor, client, cooperation partner). Finally, two case studies are used as examples to provide insights into the counselling of an individual client and a company as a client. In two phases, the possibilities of involving network partners (e.g., companies, training providers) are discussed in more detail.

4.1 Phase 1: Engagement

Phase	Description
1. Engagement (interest, initial situation, contracting)	- Initiation - what precedes counselling. - Occasion - client seeks counselling individually. - Counsellor supports client in describing the occasion, e.g., initial situation. - Counsellor and client clarify the interest. - Counsellor makes suggestions on how to proceed (contracting).

In the run-up to counselling, clients have thought about different things and undertaken activities to recognize or improve their situation. Therefore, at the beginning of a counselling process, the question of how an individual (or organisational) client became aware of the counselling or what he/she expects from it is a relevant topic.

The engagement of a client (individual or organisational, i.e., a company) into a counselling or consulting process is the first and very important phase in the process. It prepares the ground for a trustful and solution-oriented cooperation between client, counsellor or consultant and other partners. While counselling is always committed to the interest of the client (and not to external goals), counsellors must invest time and real interest into this. Appreciation and acceptance are central means of shaping this phase.

The first phase therefore focuses on the question of 'why' the person or organisation has sought support and what the initial situation is. The phase ends with a proposal on how to proceed in the process. Here, the counsellor should already go into the possibilities of working with third partners and point out the possible advantages. In organisations it should also be clarified if interviews with individuals are possible.

Counsellor: Relationship building, transparency and security. Open discussion of possible concerns and interests, sorting of concerns if necessary. Assumes responsibility for the further process with contracting.

Individual client: (existing) thoughts on the occasion and the initial situation (existing) emotions regarding the initial situation can play a role.

Organisational client: Employer or supervisor seeks counselling. Changes in the company or in the company's environment require action, e.g., further training is needed due to the recruitment of new employees.

Involvement and cooperation: Counsellor clarifies with client whether e.g., other actors already play a role (e.g., employer, employees, or education provider) and whether previous activities have already taken place. Involvement of cooperation partners is addressed as a possibility in the contract, if applicable.

Creating good practice:
Describing your network: The base for the involvement and cooperation is to know your network. Different networks probably already exist in your organisation. Surely you already cooperate with many actors. It is in any case helpful to find a way to describe your network and to establish a simple knowledge management tool to use this information in daily work. Documentation of the current network is also the prerequisite to identify gaps and to improve the density of your network.

Example: Individual client Julia M.

Based on her first positive mail-contact with her counsellor, Julia made an appointment for an online counselling session. She seeks support based on her individual initiative. On the

counselling service's website, she could see the counsellors' profiles and choose a free appointment.

The first meeting with the counsellor was very open and friendly. The counsellor took time to introduce her counselling and Julia was able to describe her current professional situation. Together with the counsellor, she formulated her interest in counselling. With the help of the counsellor, she would like to find out whether there is further training that would help her to regain her footing in a stable employment where she can build upon her qualification (librarian) and her experience in administrative jobs in companies.

Julia has indicated to the counsellor that she is very unsure whether she can successfully learn again (concern and interest). They agreed that during the counselling process they would look more closely at Julia's strengths and professional experience and work out possible requirements for suitable further education. The counsellor also agreed to explore current needs in the local labour market and to identify with training providers whether there are suitable training courses (contracting). At the end of this first conversation/step, Julia was a little more confident. She thought the counsellor was interested in her and together they had worked out some plans on how the counselling could continue (relationship building).

Example: Company of Mr. E.

Mr. E. contacts the external HR counsellor Mr. C. In a first conversation, which takes place on the premises of the company, Mr. E. describes his request. He wants to order new machines for his production plant and wonders whether the skills his employees bring with them are sufficient. Mr. C. and Mr. E. visit the workshop with the old machines together. Mr. E. describes the new functions of the machines he has ordered. This allows Mr. C. and Mr. E. to work out that behind the original concern about whether the employees have the necessary competencies, there is a hidden concern for advice on appropriate further training with which the employees can acquire the necessary digital competencies. Mr. C. notes the concern in a joint counselling document. Mr. C. emphasizes that, as a counsellor, he has access to a network of many training providers that can help him select the right training for employees and the company. However, according to Mr. C., employees and their supervisors must also be brought on board. Mr. C. offers that he can support and moderate the process. Mr. E. asks for a few days to think it over. He has a good feeling about putting the coordination of the training process in the hands of Mr. C. and decides to cooperate.

Creating good practice:
Instrument: Guidelines for clarification of occasion, concern, mandate, and contract The method supports the clarification of the occasion, concern (or interest), the mandate and a formal or informal contract. "The increasingly precise clarification of what exactly counselling (..) is supposed to be about can be well described by means of a flow chart. Following Loth (1998), the terms "occasion", "concern", "assignment" and "contract" should be neatly separated from each other in a logical accounting" (Schlippe & Schweizer 2016, p. 238). The questions are

relevant for individual and organisational context. Possible questions for clarification can be found in the appendix (see appendix 2).

Instrument: Questionnaire for initial interview with employers
In an organisational context, specific aspects can play a role and the initiation of a counselling or consulting process needs more preparation. For an initial conversation and before the details of the process (interest, mandate, contact) can be clarified, a conversation with relevant actors (owner, HR expert) can be helpful. Such a conversation is context specific and needs preparation. Anyhow, a set of questions can support the counsellor/consultant in this step. The questions focus on aspects like sector, products, cooperation, change processes, personnel and personnel development, special challenges as well as on digitalisation and current activities regarding further training (see appendix 3).

4.2 Phase 2: Assessment

Phase	Description
2. Assessment (situation analysis, self-assessment, and awareness)	Situation - Current situation - Current or past activities - Experience and knowledge - Personal/organisational strengths and resources - Motivation, thoughts, and attitudes for further development (e.g., further education) - Previous information / considerations for own development - Activities to date - Framework conditions, in particular for learning, personal environment, time, etc. - Changes in profession/ job/branches - Possible future fields of work and requirements Needs analysis - Recording digital competences and competence needs - Use of questioning techniques - Integration of self-tests (competence self-assessment) - Connection to requirements in the current or future field of activity

In this phase, a general analysis of the personal/organisational situation as well as a specific need analysis regarding digital competences is combined. This can include a conversation about relevant influences for the situation (systemic approach) and the unfolding of the biographical narrative to understand the professional and personal development of individual clients and to give him/her the opportunity to think through his/her own situation. It might be dependent to the service, how deep the personal or organisational situation is discussed. However, it is especially important to focus on the objective circumstances as well as to the subjective reflections and assumptions of a person, to develop appropriate solutions and to raise the motivation and the self-effacing of a

person for the next phases. The person is the expert for own experience, motivation, strengths, hopes, doubts, and ideas. In addition, we assume the individual as an important source of knowledge about framework conditions, changes in profession and current job as well as for requirements in the branch the person knows. In a company context, it might be relevant to organize the analyses on two levels: organisational and job related and on an individual level (focusing and integrating individual employees).

Creating good practice:

Working with individuals:
- Help your client to reflect actual tasks, own strengths, and experience. Here, many tools are available. The appendix (No. 4-7) provides methodological ideas and worksheets for a task analysis, skills analysis, the "future oriented interview" and a self-assessment tool based on "digital adaptability indicators".
- Use online self-assessment tools (as described in chapter 5).
- Important: Discuss the results of tools with the client. Interpretation and conclusions from this step is a collaborative task in the counselling process.

Working with a company:
- In a company context, the analysis of the situation should focus on two levels. From an organisational perspective, it is necessary to analyse the situation in different functions and workplaces. Specific tools can be used for this purpose. The appendix (No. 8-9) provides methods and worksheets. Appendix 8 is a "job analysis interview", No. 9 is a tool to produce job descriptions and task documentation and appendix 10 is an "employee appraisal on digital competences and training needs".
- In addition to the tools focus regarding the situation in a company, the conversation with individual employees help to identify their situation and needs. The tools for working with individuals can be applied here.
- The counsellor/consultant should clarify with whom the results of the situation analysis and the assessment should / can be discussed.

Counsellor: Counsellor is an expert in the process for clarification and analysis of the situation (of an individual or organisation), supporting the client through question impulses, using knowledge about professions and branches and taking measures to clarify situation. Proposals and plans of action should not be developed hastily.

Counsellor chooses appropriate procedures based on the client's "state of mind" or existing structures and patterns in an organisational context. Counsellors provide references to current requirements in profession or job activity (branch-specific). Results of the analyses and needs assessment should be reviewed together with the client(s). The counsellor offers support in the evaluation and reflection of the (self-)assessment procedures and outcomes.

Individual client: Client is expert for his own situation (retrospective, experience-based). Client's willingness and reservations to assess competences. Support needs when identifying competences.

Organisational client: The company cooperates by openly engaging in the counselling process and transparently describing the initial situation in the company. If necessary, the company obtains missing information or prepares it for the counselling process.

Involvement and cooperation: Involvement of cooperation partners, where appropriate, is included with the contract as a way of clarifying e.g., digital requirements in profession or job.

Creating good practice:
Tool: Skills analysis To get an overview of a person's previous fields of work in guidance processes, the activity analysis is useful. Activities that can be concretely described and learned are noted down by the client in a structured way and explained in the conversation. A tabular overview of activities is suitable for a better overview (Triebel 2022, p. 95 ff.) (see appendix 5). Alternatively, the activities can be recorded in a mind map, in the middle of which the period of time and the area of activity are recorded (Triebel 2022, p. 109 f.). The aim of the reflection is to deduce the (digital) competences that the client already has. **Tool: Self-assessment** In chapter 5.1 and Appendix I of this handbook, different tools to assess competences in a structured way are presented. If the tools are open access, clients can use such instruments on their own and practitioners can support them in terms of technical aspects and in the interpretation of the results. Practitioners should also search for instruments available in their national or regional context.

Creating good practice:
Involvement of other actors - situation analysis There are many variants for involving the other actors, depending in particular on the local situation and the type of networking. **Variant indirect contact:** The counsellor can indirectly use (via platforms, offer descriptions, research, knowledge management) network partners and their knowledge/resources. For example, regional labour market data (Labour Market Information) provides information on the demand for skills (e.g., in a certain occupation), which can also be useful for the situation analysis of the individual client. Research of this kind is necessary as a first step, but direct contact is indispensable. **Variant individual contact:** The counsellor can contact employers directly or involve other actors/agencies for clarification, e.g., of requirements for specific jobs/workplaces. This can be done e.g., by phone, video-call, or face-to-face meetings. **Variant case conference:** A case conference is an established structure in which participating experts (counsellors, representatives of training providers, employers, chamber representatives or similar) meet regularly to discuss skills needs. Counsellors can bring in current cases here to discuss the clients' situation.

Example: Individual client Julia M.

The counsellor asks Julia to tell him about her current situation in the work context and gives an impulse to narrate her vocational and educational biography and professional career. Together they collected strengths that helped Julia so far to manage her job life and to overcome difficulties. The conversation focused also on her attitude and experience toward learning. The counsellor listens to her concerns and reservations about training. Together they discovered some criteria that make a reasonable learning situation. For Julia, it is especially important that she can combine learning with her family duties. The need for financial support during a learning period, if Julia cannot work one hundred percent, was also discussed.

It was helpful to look at the labour market together. Julia wants to understand if she has a chance to re-enter a better qualified job (as a librarian or in an office). In the ESCO database, the client and the counsellor analysed the skills for the job field "General office and administrative tasks" in more detail. Julia has most of the necessary skills, but she wants to deepen her knowledge and skills in using IT in this context (information skills, data processing and management, using computers in an office context, using digital tools for collaboration) (ESCO 2023, https://esco.ec.europa.eu/en/classification/skills?uri=http://data.europa). For this field (clerical and administrative jobs), she has identified three possible vacancies and looks at the job descriptions. They agreed that it might be good if Julia got in contact with one of the employers she already knew from a previous job. The counsellor will contact two other employers and wants to identify what IT skills exactly are required and if the employer supports training or can advise a certain training measure to help Julia to catch up with the tasks. In addition, the counsellor will speak with an expert from the chamber of industry and commerce about the labour market information relevant for analysing Julia's situation.

Additionally, they planned a structured needs analysis. This is based on a manual description of different digital skills in a structured way. With the support of the counsellor and a self-assessment tool, Julia identified competences she thinks are still well developed as well as areas where she might need training. The counsellor also gave Julia an Internet link where Julia can undergo a self-assessment (competence self-assessment for digital skills). They made a new appointment to discuss the information they collected from the employers and the results from the self-assessment.

Example: Company of Mr. E.

Mr. E. and Mr. C. have another appointment to assess the initial situation in the company. Ms. A., a manager in charge of the production area with a very good insight into the strengths of her employees, is also present. Together they work out the actual state, which Mr. C. also visualizes immediately on a flipchart. 10 people work in the production department. 7 of them have obtained their basic vocational qualification as milling operators (today: metal technology specialists (machining technology)) in the company and 3 have joined externally. Two employees are about to retire. Of the remaining 8 employees, two are between 50 and 60 years old. 4 employees are between 40 and 50 years old. 2 employees are between 30 and 40 years old. As the company has had a low turnover in recent years, no trainees have been taken on.

Together they also discuss the previous activities of all employees. During the interview, Mr. C. asks about the previous training practice. None of the employees had completed further training in the last 4 years. Ms. A. adds that the employees are also rather reluctant to request further training and prefer to go about their work.

After Mr. C. has recorded the actual state of the previous operational tasks, the focus now turns to the digital skills in particular that the employees need for the CNC machines and the new 3D laser scanner.

Mr. C. goes through the chart of digital competencies. With the help of Mr. E. and Ms. A., who planned the purchase and selection of the new production machines, he records the digital competencies required to operate the new machines. Mr. C. collects the competency characteristics in a table and attaches them to the detailed counselling notes. He has previously checked with the employees that he is allowed to collect this data. He also asks them how they feel about further training and how they would be available for learning.

4.3 Phase 3: Planning

Phase	Description
3. Planning (based on needs analysis; sense of direction, goals, solutions, agreements)	Goal setting - Identification of possible goals that the client can / would like to strive for. - Differentiation of goals (e.g., in steps). Planning of solutions - Research and selection of possible qualification offers. - Identification of financial support opportunities. - Developing further solution steps that may be necessary before taking up a qualification. Agreements for next steps - Identify and agree on the steps to be taken until a second meeting. - Name, describe and agree on concrete activities.

The planning process consists of 3 major activities. While the goal setting is mostly done cooperatively by the counsellor and the client, the planning of solutions and the agreement for next steps is strongly linked to other partners, like training institutions.

Goal setting is on the one hand a very strong means to motivate people and to give their action direction and energy. Therefore, goal setting in this model is a part of the planning process. It should be noted that sometimes goals seem to be clear ("I want to have a decent work", "I need a new job"). But goals should be concrete and feasible. Goal setting can break down large goals into concrete sub-goals. Or it can narrow a long-term goal into realistic and plannable steps. In an organisational context, goal setting is linking to the strategical thinking and ensures that an activity is supported throughout the further process.

Planning of the qualification process is based on sound research for offers matching the identified needs and the contextual aspects (time, place, learning formats etc.). Financial support is often also a very important aspect that needs to be clarified and planned. If applicable: practical steps like discussing and signing a learning contract or negotiate learning support from employers' or organizational side (e.g., reduction of work hours). If qualification and training is planned for several employees within an organisation, aspects concerning finance and practical arrangements need to be clarified as well.

It is helpful to have clear agreements for the phase of realisation. Who is doing what and how can support be offered during the course of learning. Also, agreements for steps after a training might be relevant and helpful to give the client a longer perspective. Depending on the course of the process and the service offered, it is possible that this phase needs some time to develop and thus starts in one meeting and is finalized in another. This might be especially necessary if clarifications must be made before implementation of an action (e.g., starting a course).

Counsellor: Counsellor supports goal clarification and differentiation of goals, provides support in the decision-making process. Counsellor supports through his knowledge for self-orientation and knowledge of search strategies. Counsellor supported by contacts in his network. Counsellor suggests agreements on how to proceed, follow-up meeting, distribution of tasks, etc.

Individual client: Client works out goals with support by counsellor. Client is involved to clarify fit, discuss framework conditions, etc. Client actively engages to define agreements and next steps.

Organisational client: Client contributes target ideas. The client is open to looking for different goal options. The client acknowledges the facilitating role of the counsellor in goal setting. The company decides on an alternative solution, considering the framework conditions of the employees and the other company goals and strategies.

Involvement and cooperation: Involving education providers to test objectives (e.g., feasibility). Involving education providers, e.g., by enquiring about suitable offers. Involvement of actors providing funding opportunities. Depending on the course of the process, counsellor contacts other cooperation partners, e.g., to clarify participation, registration etc.

Creating good practice:

Tool: Gathering overview about further education training offers

Vogelgesang and Pongratz (2021) describe strategies for funding counselling in business development with which actors can obtain an overview of the most important funding programmes. These strategies can also be adopted for the overview of further education offers. Vogelgesang and Pongratz (2021) point out that it is hardly possible to know all the offers. Therefore, it is particularly important to get a rough overview of the provider landscape and to be able to make quick enquiries through distinct contacts on the part of the counsellor. In addition, information obtained should also be collected in a condensed form and, if necessary, visualised. A model for the overview of CET offers based on Vogelgesang and Pongratz (2021) can be found in the appendix 11.

Tool: System-environment analysis

System-environment analysis can be used to outline an organisation's relationships with other organisations. The system-environment analysis shows the direct relationships of the organisation, but does not illustrate networks (ÖAR Regionalberatung GmbH, cit. in Baumfeld et al. 2008). It can be used in the DigiTrans method, for example, to clarify operational relationships with training providers, which can then in turn be brought into the multi-actor consultation process. Furthermore, counsellors can also use this method to reflect on their own relationships and cooperation. A description of the system-environment analysis can be found in the appendix 1.

Tool: Translating competence requirements into CET objectives

Dobischat et al. (2008) describe tools for use in skills guidance. The "Worksheet (..) Translating competence requirements into CET objectives" comes from this toolbox of methods and supports guidance counsellors in translating them into qualification topics in a joint dialogue with companies and workers. Starting from current problems in the work context, the tool looks at issues in order to obtain related objectives for qualification. The tool can be found in the appendix 12.

Tool: Employee logbook

This tool allows people to record what happens daily in working contexts as well as in learning contexts. It could be paper and pencil or digital. It requires you to fill in the form answering some open questions or multiple-choice questions or checklist. The choice of the modality and the areas to monitor depends on the employee and the specific goals of the activity. It promotes the reflexive process, increases the awareness of the strengths and weakness of the employees and the organisation and could provide information on areas of improvement for both of them (see appendix 14).

Example: Individual client Julia M.

When Julia started the process, her career goals were quite vague. She had the feeling that she should make more out of her experience and qualifications. With the process she gained more confidence that there might be a way to realize this goal to some extent. The process so far has given her more strength and positive self-belief. Practically, she learned about concrete employment offers and the digital competence gap she wants and is able to address.

Now she takes time to formulate her goals. Writing down that she wants to get a new employment feels very good. She sees it as a brave move. With the support of the counsellor, she set some sub-goals she needs to reach in this way.

- Main goal: find a new, sustainable, and qualified employment (e.g., office clerk, team assistant, assistant in the technical documentation or related).
- Sub-goal 1: take part in a training regarding the following competence (information skills, data processing and management, using computers in the office context, using digital tools for collaboration).
- Sub-goal 2: identify possible trainings and contact providers.
- Sub-goal 3: clarify support (financial, employer if applicable).

Together with the counsellor, Julia screened the different training offers in the region. They identified relevant providers. Direct contact was organized with two providers to better understand the fit between Julias need and the offers. Different decision criteria have been collected and visualized. This helps to decide Julia for one of the offers.

The course of action probably will take more than a year – a long time. But a detailed plan for the identification of the right further training and the application activities makes her confident. The most crucial point seems to be the financing of the training and her living when she reduces her current job to 70%. The counsellor showed Julia a feasible way of having a grant for the training cost and they discussed possibilities of having support from PES/Job Centre for the loss of income during the training phase.

Creating good practice:
Tool: Use data base from your national or regional context to search for skills needs, jobs and trainings. Platforms of this kind partly also exist at an EU level, but the information needed is mostly embedded in a local context. Sources from the EU are for instance: **The Labour Market Information Toolkit.** *The aim* of the LMI toolkit is to highlight the importance and relevance of LMI and ICT lifelong guidance, to provide basic insights and examples and to provide an overview of useful resources. https://www.cedefop.europa.eu/en/tools/resources-guidance/toolkit **Europass** is a set of online tools to help with creating CVs, cover letters and also help users to find jobs and courses in the EU. https://europa.eu/europass/en/create-europass-cv

The Skills Intelligence Platform brings together analytical and research work to provide better and more synthetic evidence on current and future skills and labour market trends.
https://www.cedefop.europa.eu/en/tools/skills-intelligence

ESCO. European Skills/Competences, Qualifications and Occupations. The ESCO classification identifies and categorises skills, competences, and occupations relevant for the EU labour market and education and training. It systematically shows the relationships between the different concepts. https://esco.ec.europa.eu/en

Example: Company of Mr. E.

Mr. C. and Mr. E. collect different possible solutions together. Mr. C. makes sure that Mr. E. does not commit himself too quickly to a single solution. Mr. C. creates a matrix on a flipchart with the fields "who?", "what?", "how?" and "where?" and fills this solution list with Mr. E.'s first ideas.

Mr. C. encourages Mr. E. to fill in the open matrix fields as well by asking specific questions. Mr. C. collects all possible solutions in this phase, even if they cause conflicts within or between the matrix fields. After the collection, the costs and the further training offers are still open. Mr. C. asks Mr. E. to prepare a further education budget before the next meeting. Mr. E. prepares this with his finance department. Mr. C. has good contacts with further education providers and knows which offers are available. He brings information on offers to the next meeting.

At the next meeting between Mr C. and Mr E., the head of the production department, Ms A., is also present again. Mr C. presents the offers of the training providers "FUTURE", "Strategy" and "ChaNCe". A brainstorming session is held on possible solutions. Together, Mr E. and Ms A. decide in favour of the offer from the training provider "ChaNCe".

Mr. C. moderates the decision of Mrs. A. and Mr. E. and supports them in finding out their own decision criteria. ChaNCe does not offer any follow-up support in the company, but A. and E. both want this. Therefore, Mr. C. calls the training provider in the presence of both and together they clarify by telephone when the start of the course would be possible and whether follow-up support can be added. At the end of the conversation, Mr. C. goes through the next steps with Mr. E. He communicates that he will be supportive.

Creating good practice:

Involvement of other actors - planning
The involvement of other stakeholders is of particular importance in the planning process. The aim of this phase is to find suitable solutions in the form of offers and support options for the client.

Variant indirect contact: The counsellor can indirectly use (via platforms, offer descriptions, research, knowledge management) network partners and their knowledge/resources. In particular, information on further education offers is often accessible via databases. Information on funding opportunities can also be obtained in this way.

Creating good practice:
Variant individual contact: To ensure the fit between CET offers and the needs of the client, the counsellor contacts providers and other experts if necessary. In addition to the fit, this also involves, for example, the framework conditions, support in the learning process, financing or the necessary prerequisites or contracts. To maintain neutrality, different providers may have to be contacted. **Variant case conference:** If this is established, experts involved (counsellors, representatives of training providers, employers, chamber representatives or similar) can meet in case conferences to discuss local CET offers. Counsellors can bring in current cases here to discuss the client's situation.

4.4 Phase 4: Action

Phase	Description
4. Action (activities, implementation steps)	- If applicable, steps are taken that are necessary before the start of the further training (e.g., contracts, applications, agreements). - Further training measure is realized - Client takes up further education - Client gets support where applicable

The focus of this phase is the implementation of a planned activity, e.g., by a client starting further education. This usually requires various clarifications in which the counsellor plays a supporting role. For example, applications may have to be prepared, agreements made, or a contract concluded. Enabling financial support for participation in C-VET may also require additional steps. In the case of employed people, it may be necessary to clarify with the employer the working hours and times for attending C-VET. During the attendance of C-VET, the counsellor offers support if this is useful and necessary. This is particularly relevant if the client may encounter difficulties (e.g., learning, reconciling with other roles).

Counsellor: Counsellor supports steps necessary before the start of the further training (e.g., contracts, applications, agreements. Counsellor is approachable if further clarification or support in the learning process is needed.

Individual client: Active participation in a further training measure. Client uses contact with counsellor, company, or training provider when necessary.

Organisational client: The company prepares everything for the further training of the employees. For example, it communicates which employees are taking part in continuing education and coordinates with the training provider. If necessary, the company concludes a cooperation agreement with the training provider. The company supports the employees in their continuing education.

Involvement and cooperation: Counsellor cooperates with employers and training providers to clarify steps needed before starting training. Cooperation partners support the implementation of the measure.

> **Creating good practice:**
>
> **Tool: Next steps and action plan**
>
> The aim of the tool is to document and concretize next steps and actions with the client. The formulated and terminated actions help the client to organize and to control actions. The process of planning supports realistic estimations and can also prepare for obstacles. While the action plan for an individual focuses on his/her direct career and learning related actions, a plan for a company or organisation might include the administrative steps to realize actions for several staff (see appendix 15).

Example: Individual client Julia M.

Julia found a provider for suitable training with the help of the counsellor. The times for the training were discussed with the provider. The biggest current challenge is funding. Julia can reduce her current working hours, but this will reduce her income. The counsellor supports Julia with possible financing for this intermediate phase. Julia and the counsellor developed a written action plan to document the next steps. The action plan covered the training phase but also Julias goal to identify new possibilities on the labour market.

The training could thus begin. Julia has some doubts at the beginning and some practical difficulties to organise the learning besides work and family. The counsellor was able to support Julia again and encourage her to take some of the pressure off herself, e.g. with her family, and to plan her learning time.

At the same time, Julia started looking for a new employer. Her training will last a total of 6 months, after which she would like to find a new job as quickly as possible. Through the counselling, Julia has learned new strategies for finding a job, which she can now use. She approaches different employers and applies on her own initiative. The counsellor can further support her here with his network contacts. He sends her tips on job vacancies and Julia can discuss her experiences with applications with him.

Example: Company of Mr. E.

Mr. C. is again a guest of Mr. E. at the company. Today, Mr. W. from the training provider also comes, as the company and the training provider conclude a cooperation agreement. In addition, the employees are informed about the further training. Mr. E. still has questions about funding opportunities. Mr. C. can put Mr. E. in touch with a contact in his network, who will call him.

A few days later, the new machines are delivered, and Mr. E.'s employees start their two-week training. Mr. C. inquires with Mr. E. about the progress. Mr. E. has no problems and is satisfied.

4.5 Phase 5: Results

Phase	Description
5. Results (achieve, record and document results)	- Completion of further education - Learning achievements - Transfer of learning outcomes to the world of work (on the job, job search) - Further support needs

The outcome of the whole process is essentially the completion of C-VET, the identification of learning achievements and then the transfer of outcomes into the workplace, e.g. into a current job, into an extended job with the current employer or also into a new job (in case of job change or previous unemployment or re-entry into the labour market). Counselling can support in this phase both in reflecting on learning outcomes and in presenting learning outcomes to employers (e.g. updating application documents). Counsellors can also offer support for further steps and agreed goals that go beyond CVET.

Counsellor: Counsellor is available if further clarification or support in transfer is needed. Counsellor documents (if applicable) the results / outcomes or supports the client in presenting the achieved learning outcomes (e.g. update of CV).

Individual client: Client informs about the results, client takes next steps, client formulates further interest and need for support (if applicable).

Organisational client: The company informs the counsellor about the completion of the further training and about further concerns.

Involvement and cooperation: Cooperation partners are documenting the results (e.g. give certificate for training)

Example: Individual client Julia M.

Julia met with the counsellor again after completing her training. Together they discussed the learning outcomes and the counsellor helped Julia to complete her application documents to improve Julia's chances of finding a new job. The counsellor checked with Julia the completeness of the certificate she received. With his help, Julia managed to update her CV and apply for new a job.

Example: Company of Mr. E.

After four weeks, the training has been completed. Mr. E. informs Mr. C. about the end of the further training and the result.

Creating good practice:
Tool Continuing Education Certificate

At the end of a continuing education programme, it should be ensured that the continuing education programme, its content, and results are documented. As a rule, the training institution is responsible for providing such proof. In addition to the name of the participant and the institution, the title, the period of the training and the scope of the training should also be documented. The content and learning outcomes should also be documented. The record also contains information on whether a certificate or a certificate of attendance has been obtained. It is also advisable to work with the European profile passport. See here: https://europa.eu/europass/en (see also appendix 16).

4.6 Phase 6: Evaluation

Phase	Description
6. Evaluation (reflection and evaluation)	- Review of the counselling process and results - If applicable: Stimulating a new continuing education process or further career steps (e.g., job search)

The object of the evaluation is to reflect and record the counselling process and results. The benefit is, on the one hand, the improvement of the counselling service and to gain knowledge for better cooperation in the network. On the other hand, the reflection supports the client to get better insight into his learning journey, strengths, and future plans. It can stimulate clients to continue the learning process and further career steps.

Counsellor: The Counsellor guides evaluation and reflection. Counsellor is open to suggestions, wishes, criticism. Counsellor passes on findings/experiences that are relevant beyond the individual case to cooperation partners (anonymous). The counsellor supports the client to reflect own learning journeys, developed strengths, and next steps.

Individual client: Client contributes his view on counselling process and results.

Organisational client: Client contributes his view on counselling process and results.

Involvement and cooperation: Other cooperation partners are included in evaluation if necessary and applicable.

Example: Individual client Julia M.

In the same session (see phase 5), the counsellor and Julia take time to discuss and reflect the process (evaluation). On the one hand, it is about finding out how Julia experienced the support, what was helpful and supportive and how the counselling could have been even more effective. On the other hand, the counsellor wants to show Julia again what development she has gone through and how she has used and developed her resources. Julia has not only recognised her competences and needs, but she has also built up more self-confidence to assert herself on the labour market with her skills.

In addition, Julia and the counsellor have agreed that opportunities for advanced courses will be clarified with the training provider. Julia will now tackle her overall goal - namely to find a new job.

Example: Company of Mr. E.

After half a year, Mr. C., Mr. E., Ms. A. and Mr. W. meet again. Using a feedback sheet, Mr. C. obtains feedback on how the consulting process and the involvement of other actors worked from the perspective of those present. From the feedback, Mr. C. draws conclusions for his further consulting activities. He also turns to his colleague in confidence to reflect together.

Creating good practice:

For the evaluation and reflection of counselling sessions and processes qualitative and quantitative instruments can be used (see appendix 17 and 18). Also, the logbook method (appendix 14) is useful, if the client has worked with it already in the earlier stages of the process.

Tool: Feedback questions

At the end of a continuing education programme, open questions should be answered and the CGC professional should gather feedback about the counselling process.

Tool: Structured feedback form

A feedback form can be used at the end of counselling sessions or the counselling processes to obtain structured feedback from the client (monitoring of the service) and to stimulate the client's reflection (self-reflection).

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5. Assessment and Suggestions for Digital Skills Development[4]

Implementing the *CGC Roundabouts for Digital Transformation* method, CGC practitioners help clients with poor digital skills and those in semi-skilled jobs to overcome the risk of losing out. In order to facilitate the clients' engagement in activities that can improve their digital attitudes and skills, and consequently positively answers world of work digital trends, CGC practitioners may need instruments that allow them to assess digital competence and to monitor the development of these competences over time. An interindividual perspective, with a specific focus on dimensions such as digital attitude and self-efficacy, as well as a contextual perspective, with a specific focus on organisations has been followed in reviewing questionnaires and scales.

Here we present the results of our analysis conducted while considering the following inclusion criteria:

- The publication year of the articles is from 2013 onwards;
- The study's sample consists of the general population, and it is not specific to the educational context (e.g., students, teachers);
- The material is preferable open access;
- The instrument does not consist of a performance-based assessment. To this topic we dedicate an extra specific section.

The first section of the chapter focuses on some self-assessment tools and online platforms that CGC practitioners can use with employed or unemployed clients. The second section introduces the concept of Digital Maturity and focuses on organisational digital maturity assessment tools. The third section is devoted to performance-based assessment tools. In the fourth section, some suggestions for assessment and searching training for digital skills development as well as a practical example of quantitative assessment are provided.

5.1 Assessing the workers' digital skills

Considering the inclusion criteria of our research, here we offer a list of self-assessment questionnaires that CGC practitioners can use to analyse their clients' level of digital competence. A table that summaries main characteristics of these tools with examples of items is provided in the appendix. Here we also give a detailed picture of one tool, the Digital Self Efficacy Scale as an example of reflections on tools application.

Self-assessment questionnaires from the literature

Media and Technology Usage and Attitudes Scale (MTUAS; Rosen et al. 2013). The MTUAS measures media and technology usage and attitudes in adults. The scale consists of 60 items divided into 15 subscales as follows:

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- 11 subscales combine the use of older (e.g., television) with more recent technologies (e.g., smartphones) as well as device-based assessments (e.g., television viewing subscale) distinct from device-free assessments (e.g., e-mailing subscale).
- 4 attitudes subscales measure both positive and negative attitudes toward technology as well as attitudes that reflect anxiety and dependence on technology and preferences for task switching over task completion.

CGC practitioners are suggested to use the subscales together or separately as these are internally reliable and externally valid. In addition, they can phrase the subscales in such a manner as to make them available for new items as new technologies, software or apps (such as for the social networking scales, in which researchers investigated specifically Facebook usage) or to investigate specific technology usage. The scale can be requested to L.D. Rosen (lrosen@csudh.edu).

Internet Skills Scale (ISS; Van Deursen et al. 2015). This scale measures five types of skills from basic to advanced levels in using the Internet: Operational, Information Navigation, Social, Creative, Mobile. We suggest using this scale because skills are not related to platform or activities. This allows a certain level of independence from what type of activity is trending or new platforms becoming popular. The scale can be requested to Alexander J. A. M. van Deursen (a.j.a.m.vandeursen@utwente.nl).

Digital and Socio-civic Skills (DIGISOC) questionnaire (Peart et al. 2020). The DIGISOC questionnaire assesses digital and socio-civic skills in young individuals (aged 16-35). Researchers developed this tool considering the importance that both skills have on developing digital citizenship. In fact, the increased involvement of people in participatory and civic actions through the use of technology has led many people to use technology to retrieve information as well as to create, share, communicate and think critically. The 59 Likert items address five sub-dimensions of Digital Skills and six sub-dimensions of Socio-civic Skills that refer to generic activities not related to the use of specific software or apps. CGC practitioners can use this questionnaire to raise awareness in respondents on how they use ICT technologies from practical, ethical, and social-civic perspectives.

General Attitudes towards Artificial Intelligence Scale (GAAIS; Schepman & Rodway 2020). The scale has two subscales: positive subscale, that reflects societal and personal utility of the AI use, and negative subscale, that reflect concerns. The scale consists of 20 items to which the client answers with a five-point Likert scale (1= Strongly disagree; 5= Strongly agree). We suggest to use this scale with clients that work or are looking for jobs that require using AI. In fact, since people have different (in some cases opposite) points of view regarding the use of AI, the CGC practitioner can find this scale useful to reflect with the client about his/her attitude towards AI in order to understand if the person is comfortable with it. To prompt the use of critical thinking and to prevent controversial feelings towards working activities with the use of AI, we suggest reflecting on ethical aspects, pros and cons for his/her job or the compromises which he/she can make. The scale can be downloaded from the appendix section of the article on the following link: https://doi.org/10.1016/j.chbr.2020.100014.

Digital Self Efficacy Scale (DSE Scale; Ulfert-Blank & Schmidt 2022). Founded in DigComp 2.1 and Bandura's social-cognition theory, DSE scale assesses digital self-efficacy in heterogeneous adult populations. As the DigComp 2.1 describes digital competences in terms of general actions (i.e., tasks, functions), the 27 items of the scale are independent of specific digital systems. It consists of five sub-dimensions that can be used independently. It is recommended to CGC practitioners working with individuals who have access to digital systems and have basic knowledge of computers.

A glance to the tools: the Digital Self-Efficacy Scale

The DSE scale is validated in German language and translated to English by the authors. Before answering, the person receives the following instructions: "We will now ask you how you use digital systems. Digital systems are digital applications (e.g., software or apps), digital devices (e.g., computers or smartphones), and digital environments (e.g., the Internet or messaging services).

The person responds to the items on a six-point Likert scale (1= completely disagree; 6= completely agree). Here, we give some examples of the DSE item for each of the five sub-dimensions.

Information and data literacy
- Search for specific information in digital environments.
- Store and organize digital content so that I can easily find it again.

Communication and collaboration
- Participate in public discussions and activities in digital environments.
- Use digital systems to collaborate with others.

Digital content creation
- Identify legal aspects in digital environments, such as terms of use and licenses.

Safety
- Protect my personal data in digital environments.
- Recognize health risks associated with using digital environments.

Problem-solving
- Find and apply various solutions to technical problems that arise.
- Identify and improve the digital skills I lack.

We highlight that some items are formulated in such a manner that the respondent needs at least some basic digital knowledge. Items refer to general activities and are independent of specific digital systems: the CGC practitioner should specify this aspect to the client. In fact, the person can find difficult to answer the item without referring to a specific digital system and evaluate the abilities he/she recognizes himself/herself in completing the task/activity. Therefore, while the client is responding or after the score assessment, we suggest the CGC practitioner to analyse the answers with the client in order to deepen his/her awareness about the digital competence level (maybe listing the specific skills or the digital systems he/she uses), with a particular attention to his/her self-efficacy. In addition to this individual and very personalized way of using a tool in a narrative way during a counselling session, it is also possible to prepare a report that summarizes resources and weakness of the respondent to be discussed during a counselling session. It is of course possible to proceed with an inter- or intra-individual

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procedure of analysis of the answers provided. In the inter-individual procedure, or normative evaluation, the answers are compared with the norms generally calculated during tool development. In this case, it could be important to know the characteristics of this sample to better reflect on the client's results. For example, if we are scoring a tool completed by a 35 - year-old man who arrived in our country from Libya three months ago and we compare him with a sample of European adolescents we can overestimate or underestimate his competences. This of course could be an operation that is not legitimate and provide information that is not realistic. It could be better to compare him with adults of the same age and gender. In this regard, it should also be noted that many online tools use very big and heterogeneous normative samples that try to take this issue in consideration. In the intra-individual procedure, the strengths and weakness of the client are identified without any comparison with other individuals' scores. We simply calculate the mean of the scores for each factor or sub-dimensions of the questionnaire. It is particularly useful if we do not have a sample to compare the data with.

Self-assessment tools proposed by European Union

The DigCompSAT tool was published in 2020 by the European Union. It aims at testing empirically the set of DigComp 2.1 competences corresponding to levels 1 to 6 (foundation, intermediate and advanced). These are considered the most widely needed digital competence levels for most European citizens for their employment and career development. It takes a respondent about 20-30 minutes to complete the 82-item test, the latter of which can be found in the pilot research report (https://publications.jrc.ec.europa.eu/repository/handle/JRC123226).

The Digital Skills and Jobs Platform (https://digital-skills-jobs.europa.eu/en) is based on the DigCompSAT, and was launched in 2021. The platform, which includes the test (https://digital-skills-jobs.europa.eu/digitalskills/screen/home), the report with respondents' results and a learning roadmap for two learning goals, is free of charge and is translated in 29 languages. In order to view and download the report with the results, the respondent has to:
- o provide some basic information (e.g., dream job, current occupation or level of education) used to adapt the questions to his/her needs. This information is not compulsory;
- o answer a first set of ten questions that helps to reflect on his/her digital skills level;
- o answer a second set of questions that test knowledge and performance levels.

MyDigiSkills is a platform developed by a group of multiple actors. Similar to the Digital Skills and Jobs Platform, it offers respondents to self-assess their digital skills in the five areas of the DigComp 2.1. The platform is developed by All Digital, the organisation that led the development of DigCompSat and that represents networks of digital competence centres, ICT learning centres, adult education centres and libraries across Europe where children and adults can access the Internet and learn the latest digital skills. The platform could be helpful for the CGC practitioners that offer group career counselling since All Digital and the partners of MyDigiSkills offer third parties the possibility to use the service with a group of users (https://mydigiskills.eu/).

Digital Skills for Integration and Active Citizenship. To assess digital competence, practitioners may find the online questionnaire developed by the *Digital Skills for Integration and Active*

Citizenship project co-funded by the Erasmus+ program of the European Union (https://discproject.eu) useful. The tool, available in multiple languages (English, French, German, Spanish, Dutch, Finnish and Slovenian), takes approximately 5-7 minutes to complete. Respondents receive the results by email, with digital competence level in seven areas: ICT essentials, word processing, information and data literacy, daily digital tools, online collaboration, IT security, active citizenship tools.

5.2 Assessing the Digital Maturity of the organisation

Especially in the business field, the concept of Digital Maturity has recently garnered increased attention. It can be defined as the extent of development and utilization of digital technologies, as well as their seamless integration into core business processes. Through an assessment of their digital maturity, organisations can discern their strengths and weaknesses, thereby guiding their investments in technology and skill enhancement initiatives. As organisations become more digitally mature, they are more likely to offer their employees digital training and development opportunities. This can include online courses, webinars, and other digital resources that employees can access from anywhere. However, despite these sounding premises, there is still a deep gap between the skills demand and skills supply. Moreover, the mere presence of technologies does not inherently lead to the desired organisational improvements (Ochoa-Urrego & Pena 2021). Therefore, the role of CGC emerges as a catalyst of change since improving workforce career development assumes a pivotal relevance. Consequently, CGC should work on both ends, organisations, and clients, in order to ensure a smooth skills development under a win-win scenario.

Among the most relevant models, the Capability Maturity Model (CMM) is widely used as a baseline for the assessment (Caiado et al. 2016). It contains specific criteria or dimensions that organisations are evaluated against. These criteria encompass a wide array of capabilities, which, in the context of digital maturity, are relevant to essential digital transformation concepts, including technology adoption, processes, culture, and strategy. These aspects are typically represented through various maturity levels, frequently spanning from "Low" to "High." These levels offer a structured framework for assessing digital readiness and progression. Furthermore, these outcomes serve as valuable tools for benchmarking, allowing organisations to compare their performance to industry benchmarks and best practices.

Despite CGC could not be directly engaged in assessing digital maturity of an organisation, we believe the knowledge of this dimension and these tools could be considered in the system of influences that can play a role in the roundabouts methodology to build significant and sensitive collaboration and be more effective in improving at-risk workers' digital skills.

Here below are some scales and tools frequently used to assess the digital maturity of organisations. As in the previous section, the reader could find tools developed in academia and tools proposed by institutions.

Digital maturity assessment tools from the literature

Digital Maturity Assessment (DMA), (Kalpaka 2023). This assessment has 6 main dimensions, (Digital Business Strategy, Digital Readiness, Human-Centric Digitalisation, Data Management, Automation & Artificial Intelligence, Green Digitalisation) and 11 associated sub-dimensions. While the 6 dimensions outlined are generally relevant for many types of different companies, the goal is particularly designed for SMEs and public sector organisation. The assessment tool is available by clicking here.

A Holistic Digital Maturity Model, (Aras & Büyüközkan 2023). Spreading from an extensive and up-to-date systematic literature review, the Holistic Digital Maturity Model, is a sector-independent scale that can be helpful for any type of organisation, in any sector (i.e. public and private). This assessment tool is made up of 6 dimensions, namely: Digital Strategy, Digital Value, Digital Processes, Digital Technology and Data, Digital Work, Digital Governance. 24 sub-dimenions are associated with the six dimensions and five different levels of maturity. The paper contains the relevant information for CGC, in order to understand the model and the items in more detail. The article, published in an Open Access format by MDPI, can be accessed here.

Digital Maturity assessment tools proposed by institutions

Digital Maturity Assessment Diagnostic by KPMG. This maturity assessment tool requires around 15 minutes to be filled, before presenting back the results from the main page of the official KPMG website. With a comprehensive understanding of the top industry standards, CGC professionals can concentrate on the best course of action. This assessment tool is built around 8 main dimensions, considered crucial to achieve digital transformation and the status of "connected enterprises". The 8 dimensions are: Insight-driven Strategies, Innovative Products and Services, Experience Centricity by Design, Seamless Interactions and Commerce, Responsive Operations, and Supply Chain, Aligned and Empowered Workforce, Digitally Powered Technology Architecture, Integrated Partner & Alliance Ecosystem. The assessment tool can be accessed here: https://kpmg.com/au/en/home/services/advisory/management-consulting/technology/digital-maturity-assessment.html.

Digital Maturity Assessment by Digital Leadership. This online assessment developed by DigitalLeadership, focuses on 15 crucial competencies: Culture, Leadership, Budget, Innovation, Capacity, Recruitment, Learning, Project Management, Technology, Data, Reporting, Insight, Communications, Service Delivery and Internal Systems. The tool is free to use and does not require registration. It can be accessed by clicking here: https://digitalmaturity.org/digital-maturity-framework/.

Digital Maturity Score by BDC. This online assessment is relatively short, investigating a few dimensions with 13 questions. It allows to get instant feedback on the company's maturity, with a clear benchmark for the type of industry the company is in. It allows CGC to get a quick and clear overview, yet it lacks deeper insights when compared to other tools on this list. The assessment

can be accessed by clicking here: https://www.bdc.ca/en/articles-tools/entrepreneur-toolkit/business-assessments/digital-maturity.

5.3 Performance-based assessment

As we have repeatedly stated within this report and as the reader will have experienced first-hand, the digital world is constantly and rapidly evolving. This significant speed of development of applications, software, ways of working, collaborating, communicating or learning requires continuous learning and updating to keep up with the times. However, this speed also has repercussions on the possibility/manner of detecting and monitoring the person's knowledge and skills in using digital tools. This is even more complex when one considers that for the same activity or service there are often many alternatives available that differ from each other in almost minimal details.

Some CGC professionals will, in fact, have to come up with assessment tools that measure practical knowledge or skills related to the operation of a certain digital tool or software. For example, it often happens that when hiring, the candidate is asked to confirm a digital skill stated on the CV through a practical test or exercise/test. It may also happen that the client, when choosing a training course for the use of a digital tool or software, needs to understand to what level (e.g., basic, intermediate, advanced) his/her knowledge corresponds. It is apparent that the CGC professional does not have the ability to proceed independently in identifying or constructing specific assessments, as this would require in-depth knowledge of all the tools and software currently in the market.

Once again, we highlight the need to adopt the MACG perspective. In this sense, the CGC professional could construct a performance-based assessment in collaboration with the employer (or a manager with expertise in the tool/software). For the CGC professional, this time of discussion also allows him or her to support the employer in identifying and defining the minimum requirements for using the tool and/or the learning development expectations he or she has for his or her employee. In the case where the client is a job seeker, the CGC professional might propose a task similar to the one that the person is going to perform at the interview stage as a practical exercise. By the same reasoning, the CGC professional could also involve the continuing education institution in the construction of the performance-based assessment.

An important aspect that the CGC professional can work on with his or her client is argumentative skills, which are useful in the selection interview phase to motivate one's operational choice over another. An additional aspect that the CGC professional will need to consider with his or her client is stress management if the test were to be taken in the presence of an observer such as the employer or a manager.

5.4 Moving along the roundabout: Suggestions for practice

Tips for the Roundabout Assessment

Taking into consideration the several specificities that can characterize the workers with poor digital skills and those in semi-skilled jobs, CGC could encounter in their daily practice across

settings and countries, some crucial elements to consider during the roundabout assessment that should be highlighted.

First of all, the choice and use of one tool is related to the clients' situation as well as the general goal of the counselling action. The client expertise in using online surveys for example should be considered. For people with no or very low skill, asking to answer some questions using a computer or a tablet risk to be paradoxical and paper and pencil procedure could be preferable. Some clients could benefit from a short training, a familiarization with the platform and some supervision while they are responding. Self-evaluation at home could not be the best solution, so the CGC is called to organize the setting for the assessment phase.

Of course, the use of the online tools could be extremely advantageous as they enable to get the results quickly and easily. In addition, CGC practitioners may consider asking their clients to answer the questionnaire themselves between sessions, saving time and maintaining the people engaged. This option undoubtedly requires a basic level of digital skills, as well as access to tools, such as laptops and smartphones, and the Internet. Some forms of tutoring could be necessary in some cases.

Secondly, the CGC have at their disposal a wide range of tools developed in different settings and with different purposes. Pros and cons should be considered to make an informed choice about their use. For example, it is a common opinion that some tools developed by academia tend to be rather abstract, as a result of systematic reviews or conceptual exploration. Consequently, they risk not to offer sufficient insights in terms of ready-to-use capabilities or into industry trends. On the other hand, many tools developed by institutions cannot be accessed fully without hitting a paywall. This is the case of the "Digital Business Aptitude" by KPMG and the "Digital Quotient" by McKinsey. Moreover, many of these instruments are constantly updated and revised. Psychometric requisites could not be known and many times also their availability is changed from public to private.

Thirdly, since technological progress advances rapidly, on one side questionnaires and scales tend to become old very quickly, on the other side, the highly specialized digital skills of some positions make it almost impossible to find a specific assessment tool. Consequently, CGC are in the position of having to edit some questions for example with new social media or with specific tasks of a new job. This suggests that the results should be used in a more personalized and qualitative way than as a way to compare the worker with the means and the standard deviations of the standardization sample of the used tool. That is, some items as well as the tools dimensions could be used by CGC as a guide for interviewing and as a stimulus to be discussed during counselling sessions (see e.g. instrument in Appendix 7: Indicators for digital adaptability and Appendix 8: Simple job analysis interview on the need for digital skills).

Assessing digital competence in the Multi-Actors Career Guidance

The assessment process allows the client to develop awareness on digital skills level and attitudes towards digital tools' usage. This process allows us to better identify the learning/professional goal, and then resources or needs that facilitate the goal achievement. To do so, it is important that all the stakeholders are involved in the process since each of them can contribute to (or

hinder) the process of digital competence development. Considering the assessment's results, the CGC practitioner can activate the Multi-Actors Career Guidance at the micro- or meso-level in order to identify, together with the client, the supports needed. When considering the micro-level, the CGC practitioner may opt to advocate for the clients' need for self-determination by supporting them in finding the resources they need from their employer (e.g., study leave, funding for a learning course, the opportunity to engage in project work) and/or from continuing professional education providers (e.g., the opportunity for a specific learning course on digital skills). In doing so, the CGC practitioner should consider the client's attitude (see chapter 3). We assume that the client's engagement in the goal achievement process will be higher if he/she has a positive attitude towards digital tools (attitude subscale of MTUAS) and self-efficacy in using them (Digital Self-Efficacy Scale).

From the MACG perspective, assessing digital competence level helps the CGC practitioner in supporting professional education providers, which can better suggest the learning opportunities based on the client's digital competence level and needs. If CGC takes place in a company, the assessment tools can offer the employee or the HRM a more detailed picture of the employer's digital competence level from which learning goals and processes are developed.

Searching trainings for digital skills development

CGC practitioners can support their clients by also providing them with an overview of training opportunities for digital skills development. While in the case of in-person activities, it is required that the professional is familiar with the training offerings and/or local training providers, with whom collaboration is envisaged by the CGC-DigiTrans model itself, in the case of distance learning, it may be useful to familiarize oneself with some online platforms.

The CGC professional should then support the person in identifying the course best suited to his or her needs, also carefully considering the client's personal characteristics (level of autonomy in the use of a PC or smartphone, disability, level of motivation...) and the contextual characteristics that can guarantee and encourage constant course attendance (being in possession of digital tools and an Internet connection, presence of quiet spaces where to follow the course, time available for training...).

Considering EU-funded initiatives, we suggest Digital SkillUp (https://www.digitalskillup.eu/), a contribution to the Digital Skills and Jobs Platform that constitutes its learning pillar for emerging technologies. It provides easy-to-follow online courses in 10 European languages designed to help citizens, employees, job seekers and organisations (especially SMEs) find their way to upskill and reskill around emerging technologies and digital transformation. No prior knowledge of emerging technologies is needed to take the courses.

Example of quantitative assessment: Gerd the printer operator

Gerd (55 y.o.) has been working for 32 years as a printer technician in a commercial printing house. In recent years the company, like most companies in the printing industry, is investing in the digitalisation process. Within a short period of time, it will be a digital machine that will take over the activities carried out by Gerd. From a discussion he had with the human resources

manager, Gerd learned that the management has taken it as a strategic line to invest in training courses to be offered to employees with an intermediate level of digital skills, which is necessary to learn how to use the digital machines that have been introduced in the company. Gerd does not fall into this group of employees as he has basic digital knowledge and skills. Thus, he has a high risk of losing his job.

The human resources manager, considering the difficulty Gerd is having in adapting to the change taking place in the company and the printing industry, and in agreement with the management, suggests a meeting with the CGC working with the company. Gerd reluctantly agrees, more so because he has been feeling severely stressed in the recent period due to the uncertainty of his professional future.

During the first session, the CGC noted that Gerd:

- wants to find a new job, but he is resistant to change: he does not consider the possibility to be involved in different work activities or jobs and to adapt to the company's and printing sector changing;
- rejects the idea of investing time and energy in technical and training courses aimed at digital skills development, despite the fact that his vocational high school diploma is not adequate anymore;
- claims that he knows how to use essential digital tools and software (online banking, personal email management...) for daily life, but he does not see himself working with digital machines.
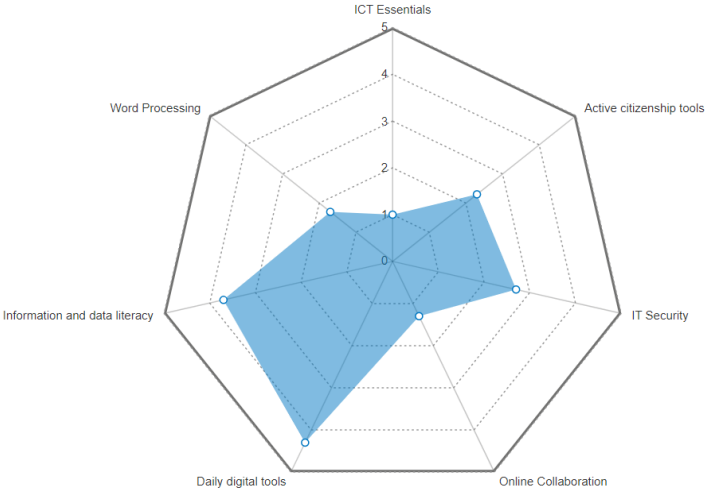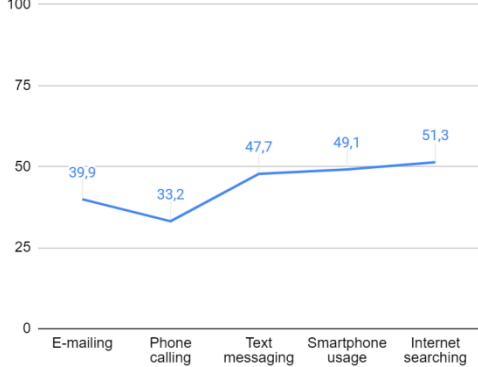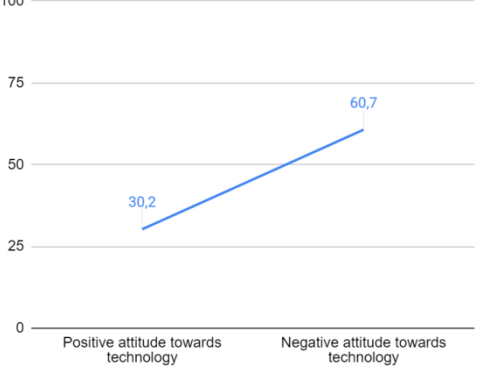
The CGC decides to investigate his general level of digital competence with the DISC project's online self-assessment tool, how and how often he uses media and technology and his attitude towards technology using the MTUAS. From the MTUAS, the CGC selects specific subscales:

• Usage subscale: smartphone usage, internet searching, e-mailing, text messaging, phone calling;
• Attitude subscale: positive attitudes towards technology, negative attitudes towards technology.

The CGC discusses the results with Gerd during the second session. The CGC explains Gerd the purpose of the assessment process and how the results help the reflective process about planning his professional future.

Since the MTUAS is not an online tool, the CGC prepares an online survey (e.g., Google Forms) entering all the items of the subscales. Gerd answers the online questionnaires with the CGC's computer. In this regard, it should be noted that the counsellor took into account Gerd's stated ability about using the PC expressed in the first session (no anxiety toward technology) and the possibility to support Gerd for technical issues, if necessary. After completing the questionnaires, the CGC examines the results described in the graph with Gerd (See tab 1).

Table: Results of the Gerd's answers at the MTUAS

Tool	Results
DISC	
MTUAS	

Gerd comments on the results, claiming that he had to learn to use the smartphone due to force of circumstance, as he had to communicate via messaging apps with his daughters and volunteers at the charity in which he is involved. Learning to use the smartphone cost him a lot of effort and was only possible thanks to the support of his family. Given the difficulties he had and since he does not feel confident when it comes to technology, he never wanted to learn anything else.

Then the CGC asks the following questions to support the discussion:

- How is digitalisation changing your job?
- What do you think if to stay in your current company you have to attend a training course to develop digital skills?
- What are the advantages you see in taking a digital skills development course for your employment and your career?
- You said you spent a lot of time and energy learning how to use the smartphone. How do you feel now seeing the path you have taken and the results you reached? What were the external supports that enabled you to achieve this? What were the obstacles?

- What are the steps you could do in the next weeks to improve your digital skills development? Who could support you?

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Appendix

Self-Assessment Tools

Tool's name	Author	Year	Link	Open Access	N. item	Sub-scales and/or sub-dimensions	Example of item
Media and Technology Usage and Attitudes Scale	Rosen, Whaling, Carrier, Cheever & Rokkum	2013	http://dx.doi.org/10.1016/j.chb.2013.06.006	No	60	Media and Technology Usage Scale (MTUS) Smartphone Usage, General Social Media Usage, Internet Searching, E-Mailing, Media Sharing, Text Messaging, Video Gaming, Online Friendships, Online Friendships, Facebook Friendships, Phone Calling, TV Viewing Attitudes subscales Positive Attitudes Toward Technology, Anxiety About Being Without Technology, Negative Attitudes Toward Technology, Preference for Task Switching	For the MTUS, most items are formulated considering the temporal frequency of the action: *Ex. 1 - Make and receive mobile phone calls.* *Ex. 2 - Search for information with a mobile phone.* For the Attitude Scale, the person indicates the degree of agreement: *Ex. 3 - I feel it is important to be able to access the Internet any time I want.* *Ex. 4 - New technology makes life more complicated.*
Internet Skills Scale	Van Deursen, Helsper & Eynon	2015	http://dx.doi.org/10.1080/1369118X.2015.1078834	No	23 (with other 12 optional items)	Operational, Information Navigation, Social, Creative, Mobile	*Ex. 1 - I know how to open a new tab in my browser.* *Ex. 2 - Sometimes I end up on websites without knowing how I got there.* *Ex. 3 - I know which different types of licences apply to online content.*
Digital and	Peart, Gutiérrez-	2020	https://doi.org/10.100	Yes	59	Digital Skills dimension (26)	*Ex.1 - I search for and access information in digital environment.*

Tool's name	Author	Year	Link	Open Access	N. item	Sub-scales and/or sub-dimensions	Example of item
socio-civic skills (DIGISOC) questionnaire	Esteban & Cubo-Delgado		7/s11423-020-09824-y			Management and use of information and data, Communication skills, Digital content creation, Management and security of information and digital content, Ethics and digital responsibility Socio-civic skills dimension (33) Social and political behaviours and attitudes, Digital empathy, Social and digital engagement, Critical thinking, Democratic attitudes, Prosocial behaviour	*Ex. 2 - I communicate my ideas to people that I know.* *Ex.3 - I use different digital content to express myself in digital environment.* *Ex.4 - I can transform information and organize it in different formats.* *Ex. 5 - I am part of a social network group that talks about political issues.* *Ex. 6 - I try to listen to opinions that differ from my own before making decisions.*
General Attitudes towards Artificial Intelligence Scale	Schepman & Rodway	2020	https://doi.org/10.1016/j.chbr.2020.100014	Yes	20	Positive, Negative	*Ex. 1 - For routine transactions, I would rather interact with an artificially intelligent system than with a human.* *Ex. 2 - Artificially intelligent systems can help people feel happier.* *Ex. 3 - I shiver with discomfort when I think about future uses of Artificial Intelligence.*
Digital Self Efficacy Scale	Ulfert-Blank & Schmidt	2022	https://doi.org/10.1016/j.compedu.2022.104626	Yes	27	Information and data literacy, Communication and collaboration, Digital content creation, Safety, Problem-solving	*Ex. 1 - Push back against injustice in digital environments.* *Ex. 2 - Identify and improve the digital skills I lack.* *Ex. 3 - Store and organize digital content so that I can easily find it again.*

Tool's name	Author	Year	Link	Open Access	N. item	Sub-scales and/or sub-dimensions	Example of item
The DigComp SAT tool	European Union	2020	https://publications.jrc.ec.europa.eu/repository/handle/JRC123226	Yes	82	Information and data literacy, Communication and collaboration, Digital content creation, Safety, Problem-solving	*Ex. 1 - I am open towards sharing digital content that I think might be interesting and useful to others.* *Ex. 2 - I know how to behave online according to the situation (e.g. formal vs informal).* *Ex. 3 - I can write scripts, macros and simple applications to automate the execution of a task.*
The Digital Skills and Jobs Platform	European Union	2021	https://digital-skills-jobs.europa.eu/en	Yes (online)	82	Information and data literacy, Communication and collaboration, Digital content creation, Safety, Problem-solving	-
MyDigySkills	DigCompSAT project of the Joint Research Council of the European Commission	2021	https://mydigiskills.eu/	Yes (online)	-	Information and data literacy, Communication and collaboration, Digital content creation, Safety, Problem-solving	-
Digital Skills for Integration and Active Citizenship	Digital Skills for Integration and Active Citizenship (Erasmus+ project)	-	https://discproject.eu	Yes (online)	-	ICT Essentials, Word Processing, Information and data literacy, Daily digital tools, Online Collaboration, IT Security, Active citizenship tools	*Ex. 1 - I am able to create a password-protected user account and modify the security features.* *Ex. 2 - I am able to connect to a wireless network and I understand the different security options.*

Roundabout Process Model Guidance in the Network

Phase	Process description	Client	Counsellor	Involvement / Cooperation
1. **Engagement** (interest, initial situation, contract)				
2. **Assessment** (situation, self-assessment and awareness)				
3. **Planning** (based on needs analysis; senses of direction, goals, solutions, orientation and planning, agreements)				
4. **Action** (activities, implementation)				
5. **Results** (achieve, record and document results)				
6. **Evaluation** (reflection and evaluation)				

Methodology for individual counselling requests

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
1. Engagement (interest, initial situation, contract)	Occasion - Client seeks counselling individually. Counsellor supports client in describing the occasion, e.g. initial situation Counsellor and client clarify the concerns Counsellor makes suggestions on how to proceed (contracting)	(existing) thoughts on the occasion and the initial situation (existing) emotions regarding the initial situation can play a role	Relationship building, transparency and security Open discussion of possible concerns, sorting of concerns if necessary Assumes responsibility for the further process with contracting	Counsellor clarifies with client whether e.g. other actors already play a role (e.g. employer or education provider) and whether previous activities have already taken place. Involvement of cooperation partners is addressed as a possibility in the contract, if applicable.	Whether there is a reason and a request regarding digital competences or professional development must be clarified on a situational basis.
2. Assessment (situation, self-assessment and awareness)	Situation - Current or past activities	Client is expert for his own situation (retrospective,	Counsellor is an expert in the process for the clarification of the situation	Involvement of cooperation partners, where appropriate, is	

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
	- Experience and knowledge - Personal strengths and resources - Motivation, thoughts and attitudes for further development (e.g. further education) - Previous information / considerations for own development - Activities to date, - Framework conditions, in particular for learning, personal environment, time, etc. - Changes in profession/ job - Possible future fields of work and requirements	experience-based)	Supporting the client through question impulses Use knowledge about professions / activities to clarify situation Do not hastily develop proposals and plans of action	included with the contract as a way of clarifying e.g. digital requirements.	

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
Continuation with focus on needs analysis for digital competences	Needs analysis - Recording digital competences and competence needs - Use of questioning techniques - Integration of self-tests (competence self-assessment) - Connection to requirements in the current or future field of activity - ...	Client's willingness and reservations to assess competences Support needs when identifying competences	Choice of appropriate procedures based on the client's "State of Mind". References to current requirements in his/her profession/activity Disclosure of the results of the needs assessment Guidance in the evaluation /reflection of the self-assessment procedures/ outcomes	Employer involvement on requirements Use of LMI on competence requirements Cooperation with providers of competence self-assessments	
3. planning (based on needs analysis; sense of	Identification of possible goals that the client can /	Client work out goals with	Counsellor supports goal clarification and differentiation of	Involve education providers to test	

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
direction, goals, solutions, agreements)	would like to strive for Differentiation of goals (e.g. in steps).	support by counsellor	goals, support in decision-making process	objectives (e.g. feasibility).	
Continuation Planning: Solutions	Research and selection of possible qualification offers Identification of financial support opportunities Developing further solution steps that may be necessary before taking up a qualification.	Client is involved to clarify fit, discuss framework conditions, etc.	Counsellor supports through his orientation knowledge and knowledge of search strategies Counsellor supported by contacts in his network Counsellor supports with knowledge of funding opportunities	Involve education providers, e.g. by enquiring about suitable offers. Funding opportunities from third parties Benefit Involve employer (e.g. regarding the feasibility of goals)	The development of solutions may only be possible to a certain extent in an initial discussion. > then agreements on the further procedure, follow-up discussion, distribution of tasks, etc.).
Continuation Planning: Agreements / next steps	Identify and agree on the steps to be taken until a second meeting. Name and agree on concrete activities	Client actively engages to define agreements and next steps	Counsellor suggests agreements on how to proceed, follow-up meeting, distribution of tasks, etc.	Depending on the course of the process: Counsellor contacts other cooperation partners, e.g. to	Depending on the course of the process: Are several discussions necessary? Do clarifications have to be made before

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
				clarify participation, registration etc.	implementation (action)?
4. Action (activities, implementation steps)	Further training measure is realized Client takes up further education If applicable, steps are taken that are necessary before the start of the further training (e.g. contracts, applications, agreements).	Active participation in a further training measure Client uses contact with counsellor, company, or training provider when necessary	Counsellor supports steps necessary before the start of the further training (e.g. contracts, applications, agreements. Counsellor is approachable if further clarification or support in the learning process is needed	Counsellor cooperates with employers and training providers to clarify steps needed before starting training. Cooperation partners support the implementation of the measure	
5. Results (achieve, record and document results)	Completion of further education Learning achievements Transfer of learning outcomes to the	Client informs about the results (if applicable) Client takes next steps Client formulates further interest	Counsellor is available if further clarification or support in transfer is needed	Cooperation partners are documenting the results (e.g. give certificate for training)	

Phase	Process description	Client	Counsellor	Involvement / Cooperation	Note
	world of work (on the job, job search) Further support needs	and need for support	Counsellor documents (if applicable) the results / outcomes		
6. Evaluation (reflection and evaluation)	Review of the conversation (process life) and results as a fixed component If applicable: Stimulating a new continuing education process. If applicable: Stimulating a new continuing education process or further career steps (e.g., job-search)	Client contributes his view on counselling process and results	Counsellor guides evaluation/ reflection Counsellor is open to suggestions, wishes, criticism Counsellor passes on findings/experiences that are relevant beyond the individual case to cooperation partners	Other cooperation partners are included in evaluation if necessary.	The object of the evaluation is the counselling process. The benefit is a. the improvement of guidance and b. the gaining of knowledge for cooperation in the network.

Creating good practice – overview of instruments and sources

Nr	Instrument	Source
	Preparing the Collaboration	
1	System-Environment-Analysis	Baumfeld, Langthaler, Payer & Scheer (2008)
	1. Engagement (interest, initial situation, contract)	
2	Guidelines for clarification of occasion, concern, mandate, and contract	Schlippe & Schweizer (2016)
3	Questionnaire for initial interview with employers	Sixt & Iller (2004)
	2. Assessment (situation, self-assessment and awareness)	
4	Task Analysis	MAGS (2013)
5	Skills Analysis	Triebel (2022)
6	Future-oriented Interview	Own Source
7	Digital Adaptability Indicators	Own Source
8	Simple Job Analysis Interview	Own Source
9	Job description and task documentation	Dobischat, Düsseldorff & Fischell (2008)
10	Employee Appraisal on Digital Competence and Training Needs	Dobischat, Düsseldorff & Fischell (2008)
	3. Planning (based on needs analysis; senses of direction, goals, solutions, orientation and planning, agreements)	
11	Gathering overview about further education training offers	Vogelgesang & Pongratz (2021)
12	Translating competence requirements into CET objectives	Dobischat, Düsseldorff & Fischell (2008)
13	SMART-Method	Drucker (2011)
14	Employee Logbook	Talwar D, Kumar S, Acharya S & Madaan (2021)
	4. Action (activities, implementation)	
15	Next steps and action plan	Triebel (2022)

	5. Results (achieve, record and document results)	
16	Continuing education certificate	Dobischat, Düsseldorff & Fischell (2008)
	6. Evaluation (reflect and evaluation the process)	
17	Feedback questions	Own source
18	Structured feedback form	Gillen & Pross (2005)

Instruments for preparing the collaboration

Appendix 1: System-Environment-Analysis

Name of the tool	System-Environment Analysis
Use in the phase	Preparing the collaboration
Aim	Outlining and rating relationships with other organisations
Short description	System-environment analysis can be used to outline an organisation's relationships with other organisations. The system-environment analysis shows the direct relationships of the organisation, but does not illustrate networks (ÖAR Regionalberatung GmbH, cit. in Baumfeld, Langthaler, Payer & Scheer, 2008). It can be used in the DigiTrans method, for example, to clarify operational relationships with training providers, which can then in turn be brought into the multi-actor consultation process. Furthermore, counsellors can also use this method to reflect on their own relationships and cooperation.
Instructions	Procedure of the system-environment analysis (ÖAR Regionalberatung GmbH, cited in Baumfeld et al. 2008; own adaptations): 1. Collection of all relevant systems/organisations/actors in the environment. They are then written on moderation cards of different sizes according to their importance (e.g., size or power). 2. The own organisation or person is placed in the middle. The other moderation cards are then arranged around the own card. Cards with great importance are made clear by placing them a short distance from the centre. 3. Then the relationships of the other cards to one's own organisation/person are clarified. Close relationships receive multiple connecting lines. Loose relationships are only indicated by dashed lines. 4. The relationships are then evaluated. Good relationships are marked with a heart, problematic relationships with a lightning bolt and neutral or non-assessable relationships with a question mark. 5. The system-environment analysis can then be discussed in the counselling interview and resources, or further network actors can be identified with regard to various questions.
Source	Source: Baumfeld, L., Langthaler, H., Payer, H. & Scheer, G. (2008). Instrumente für NetzwerkerInnen. In S. Bauer-Wolf, H. Payer & G. Scheer (Eds.): Erfolgreich durch Netzwerkkompetenz Handbuch für Regionalentwicklung (p. 110 – 183). Wien: Springer. (Own Translation).

Instruments for phase 1 (Engagement)

Appendix 2: Guidelines for clarification of occasion, concern, mandate, and contract

Name of the instrument	Guidelines for clarification of interest, initial situation and contract
Use in the phase	1 (Engagement)
Aim	The method supports the clarification of the occasion, concern (or interest), the mandate and a formal or informal contract. "The increasingly precise clarification of what exactly counselling (..) is supposed to be about can be well described by means of a flow chart. Following Loth (1998), the terms "occasion", "concern", "assignment" and "contract" should be neatly separated from each other in a logical accounting" (Schlippe & Schweizer 2016, p. 238).
Short description	The method suggests distinguishing between the four terms. In which order or which intensity, the clarification is organized or if everything is clear in the beginning of a process might differ from situation and client. In an organisational context such a process can be more formal than in a session with an individual. The term "contract" can be understood as formal (e.g., in a written agreement) or more as informal. The Instrument focus on the following aspects and helps counsellor and client to clarify: • Do I know what the reason is that brings the person seeking counselling to me? • Do I know what the specific concern is that my client wants to realise? • Do I know what exactly my client wants from me in this regard? • Am I willing and able to offer exactly that?
Instructions	**Questions as the following might be used:** **1. Occasion: What brings you here?** • What brings you here, was there a trigger, a current occasion? • Why do you want counselling right now? **2. Concern: What do you want to achieve here?** • What do you want to happen here today? • What should happen at the end of today's session, what should happen at the end of the counselling process? • On current ideas for solutions: What do you think should happen now? **3. Assignment: What do you expect from the counselling?** • What exactly do you want from me in this? • Who else (third parties) have expectations of the counselling? And what exactly?

	4. Agreement, contract: What am I offering?
	• I have understood (summarize): ...
	• Finding a basis for cooperation via:
	    ○ a) Fit and demarcation: I can do that with my means, we can do that here in the institution, that - at least in this form - not, but ...
	    ○ b) Offer: This is what I can offer you ...
	• Design of the external framework (outlook on the process, dates, cooperation with stakeholders, financing, etc.)

Source	Own adaptation from Source: Schlippe & Schweizer (2016). Lehrbuch der systemischen Therapie und Beratung I (pp. 238 – 241). Göttingen: Vandenhoeck & Ruprecht. (Own Translation).

Appendix 3: Questionnaire for initial interview with employers

Name of the instrument	Questionnaire for initial interview with employers
Use in the phase	1 (Engagement)
Aim	Understanding the initial situation of a company, expressing interest in its characteristics, and linking such aspects to digitalisation and further training.
Short description	Changes are influencing factors for continuing education. The questions deal with current changes and link them to previous continuing education activities. Special attention is paid to the aspect of digitalisation. In an organisational context, specific aspects can play a role and the initiation of a counselling or consulting process needs more preparation. For an initial conversation and before the details of the process (interest, mandate, contact) can be clarified, a conversation with relevant actors (Owner, HR Expert) can be helpful. Such a conversation is context-specific and needs preparation. Anyhow, a set of questions can support the counsellor/consultant in this step. The questions focus on aspects like sector, products, cooperation, change processes, personnel and personnel development, special challenges as well as on digitalisation and current activities regarding further training.
Instructions	**Questions:** A. Initial situation of the company/organisation: - In which sector is your company active and what are the current characteristics of this sector? - What are your most important products or services? What new products or services have been or are currently being added? - With whom are you currently cooperating to shape change processes (technology, personnel)? - Where are or where have change processes taken place in your company in recent years? - Which innovations have been/are being introduced? - Which technologies have been/are being introduced? - What are specific changes/developments focusing on digitalisation? - What organisational changes have taken place/are taking place? - Do you see any challenges facing the company? - What measures have you already taken to deal with them? B. Current activities regarding further training - What changes have taken place in the human resources area? - What activities are being pursued to shape this change in relation to personnel?

	• What kind of training activities are implemented so far? (formal, non-formal, informal) • Which groups of employees (can) take part in further training? • Are there specific activities regarding digital skills training? • Where do you see a need for more training (formal, non-formal, informal?)
Source	Own adaptation from Source: Iller, C. & Sixt, A. (2004): Flexibel, praktisch, zielgenau: Handbuch für kleine und mittlere Unternehmen zur Ermittlung des betrieblichen Weiterbildungsbedarfs (p. 11). Heidelberg: BeKUM. (Own Translation).

Instruments for phase 2 (Assessment)

Appendix 4: Task analysis

Name of the instrument	Task analysis
Use in the phase	2 (Assessment)
Aim	Aim: Aim of this tool is to stimulate a dialogue and analyses with the client about his current main work tasks and tasks he likes to perform.
Short description	Our everyday life as well as our work is characterised by activities. We use verbs (activity words) such as "prepare", "drive", "write" or "telephone" to describe what we do. The clients are encouraged to describe their activities (work context, everyday life) (in writing or in dialogue). They are also asked which activities they particularly enjoy doing. Key words can be used to stimulate reflection.
Instructions	What do you do in your everyday life and at work? Do you phone, assemble or plan? Make a conscious decision not to differentiate between work and leisure. Make a spontaneous note of what comes to mind. Make sure you use verbs (activity words) in your description. The following questions can help you: ● What do I do when dealing with people? ● What do I do when dealing with information? ● What do I do when dealing with objects, animals, plants, etc.? You can use the examples (examples for activities) to complete your list. This is what I do: _____ _____ _____ _____ _____ I particularly like doing this: _____ _____ _____

	1. Highlight this activity in colour in your list above. 2. Now select three activities that are your favourite and enter them here: 1. _____ 2. _____ 3. _____ Examples of activities: Design, discuss, paint, communicate, advise, research, draft, organise, build, programming, sell, sort, write, educate, support, instruct, negotiate, repair, cook, prepare, drive, teach, tidy up, develop, listen, learn, phone, plan, calculate, explain, observe, develop, motivate, control, count, co-operate, visualise, document, recognise, solve, edit, ...
Source	Own adaptation from Source: MAGS (Ministerium für Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen) (2018). Talentkompass NRW. Fähigkeiten und Interessen erkennen und einsetzen (pp. 19ff.). Düsseldorf: MAGS. (Own Translation).

Appendix 5: Skills analysis

Name of the instrument	Skills analysis
Use in the phase	2 (Assessment)
Aim	The aim of the reflection is to deduce the (digital) competences that the client already has.
Short description	In order to get an overview of a person's previous fields of work and the related skills in guidance processes, the activity analysis is useful. Activities that can be concretely described and learned are noted down by the client in a structured way and explained in the conversation. A tabular overview of activities is suitable for a better overview (cf. Triebel 2022, p. 95 ff.). Alternatively, the activities can be recorded in a mind map, in the middle of which the period of time and the area of activity are recorded (Triebel, 2022, p. 109 f.).
Instructions	**Table:** <table><tr><th>Time period</th><th>Company/ employer</th><th>Field of activity/ project</th><th>Skills/ tasks</th><th>Proficiency (basic knowledge, advanced knowledge, expert knowledge)</th><th>Own evaluation (did I like doing that?)</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Source: Triebel, 2022, S. 96 f.; own additions/adjustments
Source	**Own adaptation from Source**: Triebel, C. (2022). Wer bin ich? Was kann ich? Was will ich?: Potenzialorientiertes Karrierecoaching (Vol. 333) (pp. 90ff). Klett-Cotta. (Own Translation).

Appendix 6: Future-oriented interview "digitalisation"

Name of the instrument	Future oriented interview "digitalisation"
Use in the phase	2 (Assessment)
Aim	Aim is to talk with clients about changes in the world of work or in their workplace or company. Gather information about changes and initiate to a reflection on own developmental needs. In addition to the benefits at the information level, the questions can also be used to observe and address attitudes and emotions.
Short description	The instrument provides 14 questions. The questions combine current and future challenges with qualification needs. The counsellor can use a set of questions or the whole questionnaire, as appropriate. The questions of the future-oriented interview can be used, for example, in counselling services on digitalisation in the professional environment (in the workplace or in individual counselling sessions), in companies for the broad recording and comparison of organisational and individual needs, in individual counselling sessions for in-depth analysis of further training needs and professional opportunities/requirements as well as for raising awareness of personnel development needs in SMEs (also in connection with organisational projects, etc.).
Instructions	**Questions for interview or dialog:** **Perspective "current tasks":** • What activities do you carry out in your job? • Which of these activities are already digitally supported today? • Will the importance of technology increase? • How will this affect your work? **Perspective "technological changes":** • What technological changes do you see in your profession/company? • What technologies are being introduced and what skills are required to use them? • Do you see opportunities or risks in the use of these technologies in the context of your work? **Perspective "changes in working organisation":** • Are there areas in your company where organisational changes are on the horizon? • Are new products or production methods being developed or introduced in your company?

	• Is the organisation changing, e.g. through acquisitions, outsourcing, etc.? Are you directly or indirectly affected by current changes? **Perspective "qualification":** • What qualifications or further training have you already completed to prepare you for the digitalisation of your tasks? • Do you know of any further or advanced training courses that could support you in this context? • What further training (thematic) would prepare you for the digital transformation?
Source	Own adaptation from Source: Dobischat, R., Düsseldorff, K., & Fischell, M. (2008). Leitfaden für die Qualifizierungsberatung von kleinen und mittleren Unternehmen (KMU). Universität Duisburg-Essen. DOI: 10.25656/01:1649. (Own Translation).

Appendix 7: Digital daptability Indicators

Name of the instrument	Digital Adaptability Indicators
Use in the phase	2 (Assessment)
Aim	The "Digital Adaptability" questions are based on the concept of "Career Adaptability" (Savickas). The 5 categories of the concept were transferred to the aspect of digitalisation. The questions can be used in dialogue or systematically. This can also be used to identify fields of action for counselling with the client. The indicators can also be scaled, whereby it is not a validated diagnostic instrument, but rather serves to deepen the topic of professional and digital adaptability during the interview.
Short description	The Career Adaptability concept consists of the categories: Concern, Control, Curiosity and Confidence. The indicators for digital adaptability can be used, among other things: • For counsellors as question impulses and to explore the adaptability of those seeking advice • For self-assessment in the individual adaptation process and as an indication of adaptation needs • To systematically record the adaptability of workforces (digital maturity level of the workforce and the company) • To evaluate/measure the impact of consulting services that accompany digital change (pre-post measurements) **The five concepts in short:** Concern - importance of goals and intentions. This also includes awareness of the importance of one's own career choice, career path or own development needs as well as the formulation and reflection of intentions and goals (Ratschinkski 2014 based on Savickas 1997) Control - planning behaviour. People can gain control over their own future (to a limited extent) by taking responsibility for their own professional and career development. If these are organised and pursued through their own long-term efforts, the probability of success increases. Planning behaviour encompasses various aspects, but in particular information gathering and decision-making. (Ratschinkski 2014) Curiosity - curiosity and exploration. This ability "enables thinking about possibilities and (critical) exploration of options for the fit between self and different environmental scenarios" (Ratschinkski 2014, p. 13). In

	particular, the aspects of openness to new experiences, the exploration/exploration of possibilities and options. A distinction can be made between self-exploration (who am I, what defines me, what skills do I have) and environmental exploration (what possibilities are there) (cf. Ratschinkski 2014, 13). Confidence - expectations and trust. Confidence refers in particular to "trust in one's own abilities (...) to solve problems and overcome obstacles" (Ratschinkski 2014, p. 14). However, it also includes trust in the reliability of the social environment (ibid.). The expectation of future success and solving upcoming tasks has a positive effect on one's own efforts and motivation to solve them and thus ultimately promotes actual success (see the concept of self-efficacy according to Bandura).
Instructions	**Indicators on digital adaptability:** **Concern (scale in relation to digitalisation) (scale 1-5):** • I think about what my future could look like in the digitalised world • I realise that I need to deal with digital issues today, as they will shape my future • I am already preparing myself today for the digital challenges of the future **Control (scale in relation to digitalisation) (scale 1-5):** • I remain optimistic when I think about the challenge of digitalisation • I know that I have to make relevant decisions for my own participation in the digital world of work • I take responsibility for my actions to meet the digital challenges **Curiosity (scale in relation to digitalisation) (scale 1-5):** • I deal with current environmental changes regarding the digitalisation of education and work • I use different ways to engage with digitalisation • I am curious about new opportunities that arise from digitalisation **Confidence (scale in relation to digitalisation) (scale 1-5):** • I am convinced that I will be able to perform the tasks I am given in the context of digitalisation well • I will learn new skills that I need for digitalised work • I can solve problems that I will face in the context of the digitalisation of work and education

Source	Source: Own development. The Indicators and Questions are based on the career adaptability concept (Johnston u.a. 2013; Ratschinski u.a. 2014)
	Johnston, C. S., Luciano, E. C., Maggiori, C., Ruch, W., & Rossier, J. (2013). Validation of the German version of the Career Adapt-Abilities Scale and its relation to orientations to happiness and work stress. Journal of Vocational Behavior, 83(3), 295-304.
	Ratschinski, G., Sommer, J., & Kunert, C. Die Evaluation des Berufsorientierungsprogramms des BMBF–Entstehung, Konzept und erste Ergebnisse. (Own Translation).

Appendix 8: Simple Job Analysis Interview on Digital Competence Needs

Name of the instrument	Simple Job Analysis Interview on Digital Competence Needs
Use in the phase	2 (Assessment)
Aim	The method supports the analysis of digital competence needs for a specific position in an organisation.
Short description	The method intends to provide a simple frame for the analysis of competence needs in an organisation that can be used when working with employers. It builds on the DigiTrans competency framework (Weber & Schulz 2023) and its competence dimensions: • Technical Expertise • Information, Data, and Media Competence • Communication and Collaboration • Digital Content Creation • Transversal Competences In addition, the method also provides questions to analyse security requirements of a position as well as the frequency of technological changes in the organisation, the training culture in the organisation and challenges in relation to digital competence development in the past. Below you can find an example interview guide for a job analysis with an employer representative. It consists of two parts. A core part that covers the digital competence dimensions of the DigiTrans Digital Competence framework. An optional part that could be used situationally and may provide additional information for planning suitable learning processes or learning offers.

Instructions	**Questions:**
	• **Job Overview and Responsibilities:**
	   o Can you provide a detailed description of the job role, including its main responsibilities and tasks?
	   o What are the key objectives and goals associated with this position?
	• **Technical Expertise:**
	   o Can you specify the technical skills and knowledge required to effectively perform tasks related to this job?
	   o Are there specific software, hardware, or technical platforms that are critical for success in this role?
	   o Can you provide examples of situations where a high level of technical expertise is essential?
	• **Information, Data, and Media Competence:**
	   o Does this role involve tasks related to handling, analysing, or interpreting data and information?
	   o Are there specific data management systems, software, or tools that employees in this role will need to use?

- o How important is the ability to critically evaluate and use digital media content for this job?
- **Communication and Collaboration:**
  - o Can you describe the importance of effective digital communication, both internally and externally, for this role?
  - o Are there specific platforms, tools, or software used for communication and collaboration within the organisation or with external stakeholders?
  - o How crucial is the ability to collaborate digitally with colleagues or teams?
- **Digital Content Creation:**
  - o Are there responsibilities within this role that involve creating, editing, or curating digital content?
  - o Do employees need to use specific software or tools for content creation, and if so, which ones?
  - o Can you provide examples of the types of digital content that may be created in this role?
- **Transversal Competences:**
  - o Are there overarching competences or skills that cut across all aspects of this job?
  - o Do employees need to demonstrate adaptability, problem-solving skills, or other transversal competences in the digital context?
  - o Can you provide examples of situations where transversal competences are particularly crucial?
- **Security and Compliance:**
  - o Are there specific digital security protocols or compliance requirements that employees in this role must adhere to?
  - o How critical is data security within the scope of this job?
- **Adaptability to Technological Changes:**
  - o How frequently does the technology or digital landscape change within this job's domain?
  - o How important is it for employees in this role to adapt to new digital tools or updates?
  - o Are there any anticipated changes or trends in technology that might impact the digital competence needs for this job in the near future?
- **Training and On boarding for Digital Tools:**
  - o What kind of training or on boarding process is in place to familiarize employees with the digital tools relevant to this job?
  - o Are there ongoing learning opportunities for digital skill development?
- **Success Stories and Challenges:**
  - o Can you share any success stories of employees excelling in this role due to their proficiency with digital tools?
  - o Have there been challenges related to digital competence in this role, and how were they addressed?

	By addressing these questions within each dimension, the aim is to gain a comprehensive understanding of the specific digital competence needs for this job. This information can be used to tailor training and development programs to ensure employees are equipped with the necessary digital competences.
Source	Source: Own Source, based on the DigiTrans Competency Model:Weber P. & Schulz J. (2023). CGC-DigiTrans Report. CGC - roundabouts for Digital Transformation. Professional Guidance & Counseling (CGC) in Multi-Actor-Networks. CGC Project. https://digitransformation.net/report/ [11.12.2023] Chat-GPT was used to formulate the questions based on this source.

Name of the instrument	Job description and task documentation
Use in the phase	2 (Assessment)
Aim	Job descriptions and task documentation help employers and employees to determine current and future tasks and to make plans, e.g. for changes or further training.
Short description	The analysis can be carried out by observation, self-documentation, written questioning, estimation, etc. Both managers and employees can be involved in this. The results can be discussed or further processed with the consultant, for example.
Instructions	Job title: .... Job holder: .... Created in the period from: .... to .... Created by: (name) .... (Department):........................... Method of recording: (observation, self-documentation, written survey, estimation, etc.): .... A) Job description <table><tr><td>Job title:</td><td></td></tr><tr><td>Job holder: (name)</td><td></td></tr><tr><td>School education/vocational training</td><td></td></tr><tr><td>Career of the employee in the company</td><td></td></tr><tr><td>Work experience</td><td></td></tr><tr><td>Further training</td><td></td></tr></table>

Special areas of expertise/activities	XX
Specialised knowledge	
Tasks currently performed	
Future tasks	
Competences that still need to be acquired for current tasks	
Competences that still need to be acquired for future tasks	

B) Simple task documentation

Work order is issued by:	
Person, Function, Department:	
Activity at the workplace: Activity A Activity B Activity C Activity D Activity E ...	
Time scope of the activity: Activity A Activity B Activity C Activity D Activity E ...	
Work equipment used (tools, machines, computers, media, etc.) Activity A Activity B Activity C	

	Activity D Activity E ...	
	Work result/product goes to: Customer Department Supervisor Etc....	
Source	Own adaptation from Source: Dobischat, R.; Düsseldorf, K.; Fischel, M. (2008). Leitfaden für die Qualifizierungsberatung von kleinen und mittleren Unternehmen (KMU) (pp. 37-38) Essen: Universität Duisburg-Essen. (Own Translation).	

Appendix 10: Employee Appraisal on Digital Competence and Training Needs

Name of the instrument	Employee Appraisal on Digital Competence and Training Needs
Use in the phase	2 (Assessment)
Aim	Identify problems in terms of digital competence gaps and corresponding training needs for a specific position and employee.
Short description	The 'employee interview' to assess current and future skills needs is a simple way to identify digital literacy learning and training needs. An interview always shows personal appreciation and underlines the importance you attach to the employee. Always make it clear that this is not a "control interview", but a constructive attempt to find solutions to bottlenecks from the employee's point of view. The employee himself/herself can make the decisive suggestions, express wishes, etc. in the precise identification of needs. For example, you can use the following scheme, but you can also vary the order and the questions. The interviewee should be able to influence the course of the conversation.
Instructions	**Employee appraisal template:** Interviewer: _____ Date of the conversation: _____ Date of last employee review: _____ Employee: _____ Department: _____ Job Title: _____ **Reason for the conversation:** _____ _____ _____ _____ _____ What does the employee think he or she is particularly good at to fulfil his or her work requirements well? _____ _____ _____ _____

General problems and solutions in relation to the use of digital devices and applications in the organisation:
What problems, independent of his or her own work, can the employee identify in relation to the use of digital devices and applications in operational work processes?

From the employee's point of view, which solutions (organisation, equipment with hardware and software, change of responsibilities, etc.) are helpful to address the identified problems?

To what extent could learning or continuing education activities in the broadest sense help here?

Employee-specific problems and solutions in relation to the use of digital devices and applications
Note: Note: This section focuses on an employee's individual problems and potential solutions related to the use of digital devices and applications in the work process. The depth to which this point is covered in the interview may depend on the complexity of the tasks, the intensity of the use of digital devices and applications in this position, and the employee's ability to reflect and express himself or herself about the use of digital

devices and applications in the work process. Therefore, in addition to a general question on problems in the work process, specific questions on different dimensions of digital competence (Weber &Schulz 2023) can be used to identify the employee's problems.

How important is the use of digital devices and applications in this role? Which digital devices or applications that are important for this role does the employee have problems using? Can he or she give examples of situations where problems occur?

_____

_____

_____

_____

How important are tasks related to handling, analysing, or interpreting data and information in this role? What kind of problems does the employee experience in performing these tasks?

_____

_____

_____

_____

How important are tasks related to digital communication, both internally and externally, in this role? What kind of problems does the employee experience when carrying out related tasks?

_____

_____

_____

_____

How important are tasks related to creation, editing, or curating digital content in this role? What kind of problems does the employee experience in accomplishing related tasks?

_____

_____

_____

_____

	Learning and training activities
	Learning and training activities What learning and training activities does the employee stimulate to reduce his or her own work problems or to achieve improvements?

Problems (mention specific devices/applications)	Competence/continuing education topic	Priority

Source	Own adaptation from Source: Dobischat, R., Düsseldorff, K. & Fischell, M. (2008). Leitfaden für die Qualifizierungsberatung von kleinen und mittleren Unternehmen (KMU) (p.46 f.). Universität Duisburg-Essen. DOI: 10.25656/01:1649. (Own Translation).

Instruments for phase 3 (Planning)

Appendix 11: Gathering overview about further education training offers

Name of the instrument	Sample overviews of continuing education offers
Use in the phase	3 (Planning)
Aim	The aim is to obtain a structured overview of training opportunities and to record and share knowledge within the organisation in a structured way.
Short description	Vogelgesang and Pongratz (2021) describe strategies for funding advice in the field of economic development, which can be used by actors to obtain an overview of the most important funding programmes. These strategies can also be applied to the overview of training provision. Vogelgesang and Pongratz (2021) point out that it is hardly possible to know all the offers. Therefore, it is particularly important to get a rough overview of the provider landscape and to be able to make quick enquiries through clear contacts on the part of the counsellor. In addition, the information gathered should be summarised and, if necessary, visualised. This model for the overview of continuing education offers, based on Vogelgesang and Pongratz (2021), has its own adaptations.
Instructions	Template overviews of continuing education offers (Source: own adaptation, based on Vogelgesang & Pongratz, 2021) | Category	Information
Programme	
Supplier of further training	
Target group(s)	
Branches	
Learning targets	
Learning style (hybrid, in presence, …)	
Content	
Minimum number of participants	
When does the training takes place?	
Funding opportunities	
Contact person (phone number, e-mail-address)		
Source	Own adaptation from Source: Vogelgesang, M., Pongratz, P. (2021). Fördermittelberatung in der Wirtschaftsförderung. In: Stember, J., Vogelgesang, M., Pongratz, P., Fink, A. (eds) Handbuch Innovative

	Wirtschaftsförderung. Springer Gabler, Wiesbaden. https://doi-org.hdba.idm.oclc.org/10.1007/978-3-658-33603-5_20. (Own Translation).

Appendix 12: Translating competence requirements into CET objectives

Name of the instrument	Translating competence requirements into CET objectives
Use in the phase	3 (Planning)
Aim	Collecting objectives for qualification
Short description	Dobischat et al. (2008) describe tools to be used in relation to guidance in the context of further training. The presented Worksheet 'Translating competence requirements into CET objectives' comes from this toolbox and supports guidance counsellors in translating competence requirements into CET topics in a joint dialogue with companies and employees. Starting from current problems in the work context, the tool explores issues to arrive at related training objectives.
Instructions	The following table will help you to translate competence requirements into qualification contents or qualification topics. <table><tr><td>Current performance problem or future work require-ment</td><td>Cause of problem (e.g. "lack of expertise", operating problem)</td><td>Qualifi-cation goal (e.g. software application of specific software)</td><td>Level of qualification (basic, advanced, expert)</td><td>Topic or contents of the qualifi-cation</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> Please note that, if possible, you should work through this table of requirements directly with the employees and their supervisors/line managers! It is imperative that you develop this worksheet in dialogue, a written survey alone is not sufficient.
Source	Own adaptation from Source: Dobischat, R., Düsseldorff, K. & Fischell, M. (2008). Leitfaden für die Qualifizierungsberatung von kleinen und mittleren Unternehmen (KMU) (pp. 42f.). Universität Duisburg-Essen. DOI: 10.25656/01:1649. (Own Translation).

Appendix 13: SMART Method

Name of the instrument	SMART Method
Use in the phase	3 (Planning)
Aim	Formulating and concretising goals with individual clients or in the organisation
Short description	The SMART method is a method used by employees in companies, organisations and public authorities to check to ensure objectives (e.g. project objectives or target agreements) are clearly and specifically formulated. This method was originally invented by Peter Drucker, a management researcher and management consultant from the USA. The term "SMART" is an acronym and stands for Specific, Measurable, Attractive, Realistic and Time-bound. When a goal or a set of goals is formulated, the following steps should be used.
Instructions	Steps: 1. The goal must be specific. This means that it must be formulated in a clear and easily understandable way 2. The achievement of the goal must be measurable. Depending on the objective, quantitative factors such as key figures or qualitative factors such as satisfaction can be used. 3. Targets will only be accepted by the employees concerned if they are attractive. It must therefore be clear what specific benefits they can derive from achieving the objectives. 4. Only realistic targets can be achieved. Goals may be formulated ambitiously, but they must also be achievable for the organisation or authority. Unrealistic goals, on the other hand, are highly unlikely to be achieved and can also have a demotivating effect on employees. 5. Ultimately, the goal must also have a deadline. A specific point in time must be set for the target against which it can be measured.
Source	**Own adaptation from Source:** Orgahandbuch.de https://www.orghandbuch.de/OHB/DE/OrganisationshandbuchNEU/4_MethodenUndTechniken/methodenUndTechniken-node.html;jsessionid=08045B4F0723445CC06A07F2804EA991.2_cid505. (Own Translation). Drucker (2011). People and Performance: The Best of Peter Drucker on Management. Routledge.

Appendix 14: Employee Logbook

Name of the instrument	Employee Logbook
Use in the phase	3 (Planning)
Aim	Monitoring the learning and the work experience
Short description	This tool allows people to record what happens daily in working contexts as well as in learning context. It could be paper and pencil or digital. It requires you to fill in the form answering some open questions or multiple-choice questions or checklist. The choice of the modality and the areas to monitor depends on the employee and the specific goals of the activity. It promotes the reflexive process, increases the awareness of the strengths and weakness of the employees and the organisation and could provide information on areas of improvement for both of them. It is frequently used in school and university context to monitor the progress of the students and in working context where it is necessary to strictly track what happens. It is frequently used, for example, by pilots, doctors, nurses, teachers etc.
Instructions	Information recorded typically concerns when, where and what has been done and what has been learned

Work participation: day......

Activity	Number of activity conducted	Number of activity participated in	Score

Skills addressed

Competency addressed	Name of the activity	Level of competency achieved		
		Observed	Performed under supervision	Performed independently

Behaviours and Ethics

Point to be considered	score				
	1	2	3	4	5
Punctuality						

	Regularity of attendance						
	Care of the work position						
	Rapport with colleagues						
	Rapport with clients						
	…...						
Source	Own adaptation from Source: Talwar D, Kumar S, Acharya S, Madaan S: Designing a log book for medicine post graduate- fruitful? Drugs and Cell Therapies in Hematology. 2021, 10:3792-801.						

Instruments for phase 4 (Action)

Appendix 15: Next Steps and Action Plan

Name of the instrument	Next Steps and Action Plan
Use in the phase	4 (Action)
Aim	To document and concretise next steps and actions.
Short description	The formulated and terminated actions help the client to organize and to control actions. The process of planning supports realistic estimations and can prepare also for obstacles. While the action plan for an individual focuses on his/her direct career and learning related actions, a plan for a company or organisation might include the administrative steps to realise actions for several staff.
Instructions	**Questions:** • What to do • Until when • What are the tasks or obstacles • How can the tasks be accomplished • Who can support • What to do if you get stuck? **Table:** See table below.
Source	Own adaptation from Source: Triebel, C. (2022). Wer bin ich? Was kann ich? Was will ich?: Potenzialorientiertes Karrierecoaching (Vol. 333) (pp. 142 ff.). Klett-Cotta. (Own Translation).

What to do	Until when	What are the tasks or obstacles	How can the tasks be accomplished	Who can support	What to do if you get stuck?

Instruments for phase 5 (Results)

Appendix 16: Continuing education certificate

Name of the instrument	Continuing education certificate
Use in the phase	5 (Results)
Aim	At the end of a continuing education programme, it should be ensured that the continuing education programme, its content and results are documented.
Short description	As a rule, the training institution is responsible for providing such proof. In addition to the name of the participant and the institution, the title, the period of the training and the scope of the training should also be documented. The content and learning outcomes should also be documented. The record also contains information on whether a certificate or a certificate of attendance has been obtained. It is also advisable to work with the European profile passport. See here: www.europass-info.de. https://europa.eu/europass/en
Instructions	**Form** (example) Continuing education certificate: Mr./Mrs. .... Has completed the following training program …... at our institution: .... completed the following qualification program. .... The program lasted from: .... to: .... and had a total duration of: .... hours.

	The following content was taught: .... The program was successfully completed with a certificate: .... /a certificate of participation .... Place/date: .... Stamp/signature: ....
Source	Own adaptation from Source: Dobischat, R., Düsseldorff, K. & Fischell, M. (2008). Leitfaden für die Qualifizierungsberatung von kleinen und mittleren Unternehmen (KMU) (pp. 71f.) Universität Duisburg-Essen. DOI: 10.25656/01:1649. (Own Translation).

Instruments for phase 6 (Evaluation)

Appendix 17: Feedback questions

Name of the instrument	Feedback questions
Use in the phase	6 (Evaluation)
Aim	At the end of a continuing education programme, open questions should be answered and the CGC professional should gather feedback about the counselling process.
Short description	The following questions will support the CCG professional in gathering feedback and in finding further counselling needs. The questions can be asked either in a bilateral interview or in a written feedback survey. In addition to employers, you should also ask employees and training providers. You can use the answers to reflect on the counselling process. Ask yourself the following questions when analysing the answers: - What would I like to retain as a counsellor? - What would I like to change? - What went well from my point of view? - What would I like to improve next time?
Instructions	Questions: Counselling process - How did you perceive the counselling process? - What was good from your point of view? - What can be changed from your point of view? Coordination of the network - How did you perceive the network coordination? - What was good from your point of view? - What can be changed from your point of view? - In what form should the network be continued? - What role can the counsellor play in this? Further training needs - Do you have any further training needs? - If so, which ones? - If not, how do we respond to new training needs that arise? Further counselling needs - Which questions remain still open? - Do you have any further counselling needs? - If so, which ones?

	• If not, how do you respond to new counselling needs that arise?
Source	Own Source (Schulz)

Appendix 18: Structures feedback form

Name of the instrument	Structured feedback form
Use in the phase	6 (Evaluation)
Aim	A feedback form can be used at the end of counselling sessions or the counselling processes to obtain structured feedback from the client (monitoring of the service) and to stimulate the client's reflection (self-reflection).
Short description	A structured feedback form can be offered digitally, or paper based. The questions in a feedback form should be customised to the respective service. The client should be given time and a protected space to provide feedback without being influenced. It is important for the feedback form to be submitted anonymously (digitally, via a letterbox or similar).
Instructions	Questions for a scale evaluation • fully applies, • mostly applies, • applies less, • does not apply Please think back to the interview(s): How would you rate the following statements? Please tick one box for each statement. You can then give your feedback on some questions openly. • The session/ process has confirmed my views on continuing education. • I got new ideas and answers for my continuing education. • I got answers to my questions. • I learned things that I didn't know before. • The interview motivated me to think more about continuing education. • The interview has opened up new questions for me. • The time I spent on the interview was worthwhile. • I would like to have another opportunity to talk like this. • There should be more counselling services like this. • I would also recommend such talks to other colleagues/people. **Open questions** What I liked best about the interview was ... _____ _____ I liked less ... _____

	_____
	
	After the counselling interview, I would like follow-up support
	_____
	_____
	
	Overall, I was
	   ❑ very satisfied
	   ❑ satisfied
	   ❑ less satisfied
	   ❑ not satisfied
	
	Is there anything else you would like to tell us? _____

Source	Own adaptation from Source: Gillen, J., & Proß, Gerald (2005). Kompetenzreflektor. 2. Auflage. Projekt „Kompetenzentwicklung in vernetzten Lernstrukturen - Gestaltung arbeitnehmerorientierter Arbeits-, Beratungs- und Weiterbildungskonzepte" (KomNetz). (Own Translation).