



IO2 – Guideline for the training of a "Digital Promoter" in SMEs

Margit Kerschbaumer & Othmar Tamerl



www.dc4work.eu













Content

1. Introduction	2
2. Training Concept	5
3. Guideline of the Training	7
3.1 Structure and content overview	7
3.2 Training Methods, Abbreviations and Legend	8
4. Implementation of the Training	9
4.1 Work-based learning in a digital age and the companies' role	11
4.2 Assessing digital competences in my company	15
4.3 Methods how to improve digital competence in my company	20
4.4. Basics for digital competences development in SMEs (cross sectors)	24
4.5 Basics for digital competences development in touristic SMEs	29
4.6 Basics for digital compentences development in commercial SMEs	33
5. Training Toolbox	36



1. Introduction

The present project deals with digital competences of employees. Next to technical infrastructure and a digital strategy, those are the prerequisites to manage the shift towards a digital savvy company. With the following document you receive a guideline to facilitate your own or other persons' development towards a digital competence promoter.

The DC4Work project focuses on the necessary digital skills that a workplace 4.0 needs. A digitally well-set company is supported by employees who have professional-specific digital knowledge and competences. The aim of each company should therefore be to promote digital competences for a better employability and therein the competitiveness of the company.

Within the framework of the project, an online survey addressed to SMEs in the tourism and retail sectors as well as expert interviews with experts from research, administration and practice were carried out. Its aim was to understand the awareness and practices existent in SMEs in what concerns the measure, promotion and development of employees' digital competences at their workplace. In detail, the study contributed to the identification of:

- a) key-digital competences required by SMEs of Tourism and Commerce/Trade sectors;
- b) mismatches between employers' qualification/competences and SMEs' needs (in these sectors) and
- c) flagship initiatives of practices existent in SMEs, suitable to be used as a benchmark.

The results of this study served to create the present guideline. The identified demands and requirements of the companies are the essential basis for the development of this training concept.

The guideline addresses the so called "Digital competence promoter" in SME's. The promoter takes on an interface function between education/training and the world of work. His task is to enable colleagues/staff members to be aware of their improvement potential regarding digital competences and translate it into action. Thus, he needs to be equipped with content-related information but also methodological knowledge.



Although the project places an emphasis on the sectors tourism and commerce, the Guideline can be used to train promoters in companies of other sectors or scope (Modules 1 - 4).

The concept of digital competence is perceived differently, depending on the context and fields of application. In this present guideline we refer to digital competences as a set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socialising, consuming, and empowerment.¹

The development, implementation and control of data-driven processes and business models with the inclusion of ICT and digital technologies, requires furthermore extended competences of the employees. New interdisciplinary skills are gaining importance due to the digitalization of our world and are mostly not connected to the specializations of the employees. The increasing degree of networking also requires professional competences such as system- and process knowledge, self-organization and communicative skills.

To build a digital savvy company it is also necessary – especially in SMEs – to focus on the "cognitive agility" of the own employees, the willingness to engage with new developments and to adapt one's behavior to the current circumstances. Within this process, the demarcation of humans to the machine world is crucial. Creativity, flexibility, categorical and conceptual thinking and critical reflection distinguish humans from the machines. Nevertheless the sensitization and training of employees "to work digitally" regarding the work organization and time management is highly recommended. Whereby the following questions are relevant:

How can we use technology to work more efficiently?

Work-based learning in a digital age-Promoting digital competences for better employability & innovation No. 2017-1-DE02-KA2002-004185

¹ See also: http://jiscdesignstudio.pbworks.com/w/file/fetch/55823162/FinalCSReport_PDFPARAWEB.pdf pag. 3-4

DC4WORK
Digital Competence 4.0

- How can we learn to stay focused and concentrated despite digital distraction at

work? "digital stress-management" as a new issue?

Summarizing it is highly recommended for the companies to set up the following

competences:

creation of digital competence assessments for the employees

- design of tailor-made digital education activities

- development of motivating working conditions for workplace learning ("digital

workplaces") to support experience based learning and to offer more time for

learning

development of a "digital culture" to enable effective digitalization by opening the

mind of the employees.

The present guideline tries to focus on these competences by approaching the topic from

different points of view. First of all the enterprise needs to be understood as learning

organization with leaders or managers empowering their staff to grow in and for the digital

(working) world. Secondly, it is suggested for a company to build up digital inhouse-

competence, which can be translated into setting up so-called "Digital Promoters".

Role of digital competences promoter

He has the knowledge to oversee the recent digital status of a company alongside with

future digital changes. By doing so the promoter can apply assessments of employees

which is the basis for staff empowering to promote digital savvy employees.

Digital promoters can be managers and employees in executive positions by

appointment. Thus they take up this function additionally to their usual tasks and

responsibilities. It requires a personal interest in the topic and the motivation for internal

further development of digital competences. The scope of his/her activities can be quite

different depending on the responsibility he has been given, the size of the company, the

technological changes it has to deal with and the sector.

Work-based learning in a digital age-Promoting digital competences for better employability & innovation



The "Digital competence promoter" in SME's should know how explicit and implicit digital knowledge can be supported (keywords: digital fluency, digital dexterity, sovereignty) and how the intrinsic motivation to improve digital skills can be emphasized.

2. Training Concept

The motivation of this guideline arises from the growing necessity of digital literacy and the significance of digital development in companies. The ability of executives to identify their employees digital skills needs and to appropriately support their development is of growing importance for a company's prosperity and success. This tasks as an innovator and mentor of digital knowledge skills at the workplace should be taken over by the "digital promoter" of the company.

The guideline is created to provide a training curriculum for vocational education and training of such an in-company "Digital Competences Promoter". This promoter should obtain basic digital knowledge in general and specific knowledge in the sectors of tourism and retail.

The target group are employees in leading positions who want to consolidate and further develop digitization in their company and who want to be available as coaches for the digital training of their employees. The required qualifications of future promoters are openness to the topic and motivation for the digitally supported renewal and further development of the own company. He should take into account that the task will demand a certain amount of time and capacity, depending - among other things - on the size and the status quo of the company. We assume that the target group has at least one degree on EQF-Level 4-5 (graduation, apprenticeship) in vocational profession. These additional qualification for employees as "Digital Promoter" corresponds to the EQF-Level 5.

Regarding the sector of tourism the training concept is addressed to owners and junior chefs of hotels, guesthouses and restaurants and focused to cover the digitalization of all areas, including reception, service, facility management, kitchen and animation (wellness and outdoor). ICT must be studied in the context of its application, as a part of marketing, customer service, revenue management, etc.



Regarding the retail sector the training concept is addressed to retail shop owner or manager in different kinds of sales areas such as clothes, shoes, sportswear, cosmetics, toys, electronic devices etc.



3. Guideline of the Training

3.1 Structure and content overview

Module 1	Work-based learning in a digital age and the companies' role
1.1	The role of leaders for digital competences development
1.2	Setting up a learning organization
1.3	Integration of work-based learning 4.0 – empowering learners
Module 2	Assessing digital competences in my company
2.1	Why do we assess our staff?
2.2.	How to map digital knowledge, skills and competences
2.3	Providing feedback to foster learning motivation
Module 3	Methods how to improve digital competences in my company
3.1	Self-directed informal learning
3.2	Collaborative facilitating methods for competence development
3.3	Collaboration with educational institutions
3.4	Open Badges for successful digital competence development
Module 4	Basics for digital competences development in SMEs (cross sectors)
4.1.	Hardware skills and digital infrastructure
4.2.	Software skills and data literacy
4.3.	Internal and external use of communication and information tools
4.4.	Creation and transformation of digital content
4.5.	Safety principles and legal regulations
Module 5	Basics for digital competences development in touristic SMEs
5.1	Website generation and search engine optimization
5.2	Management of databases and data processing
5.3	Online reputation and successful digital marketing
5.4	Influence and organizational impact of new technologies
Module 6	Basics for digital competences development in commercial SMEs
6.1	Digital marketing
6.2	Customer understanding in the digital age
6.3	Managing customer data



3.2 Training Methods, Abbreviations and Legend

Throughout the guideline, different training methods are suggested for the implementation of the digital promoters' training. In the following table you can find a short overview of methods used in the curriculum with its abbreviation used in the module description and a short explanation. This list is not exhaustive; please feel free to include any other training method you think is suitable².

Method	Abbreviation	Explanation	
Brainstorming	Brain	Creative activity to solidify suitable ideas from a pool of many different initial ideas: (of a group of people) to suggest a lot of ideas for a future activity or a problem solution very quickly before considering some of them more carefully.	
Presentation	PT	A talk giving information about a certain topic.	
Exercise	EXE	An action or task with repeating character to improve skills, often aiming to practice explicit knowledge gained before.	
Discussion	DISC	An activity in which learners talk about a topic and tell each other their ideas or opinions.	
Case study	CAS	Studying something that can be used as an example to pick up general principles or to practice knowledge/skills.	
Group work	GrW	To manage tasks in a group, in comparison to individual work.	
Project work	PW	An educational method in which learners solve a practical problem over a period of several days or weeks.	
Role play	ROP	A methods were learners are asked to pretend to be someone else, especially as part of learning a new skill.	
Online Research	ONLINE	Searching for relevant information online, preferably being aware of the quality and reliability of online sources.	

² Method descriptions based on https://dictionary.cambridge.org/, retrieved December 17, 2018



Another important term for the curriculum is "Learning outcomes". These are statements of what a learner knows, understands and is able to do after completion of learning (Cedefop, 2009). These statements can be designed and used for educational planning and curriculum development or for different types of accountability such as legal or professional accountability (Prøitz, 2010).

4. Implementation of the Training

This document combines six modules containing different learning units that provide informational input as well as external links and learning apps concerning digital competences for companies.

The idea of the document is to enable companies, to develop the digital competences of their employees (through digital promoters) by providing information and self-study applications for central topics about digitalization and digitization of companies and workplaces.

New research studies show that around 70% of learning happens due to challenging work processes, 20% by interaction with others and only 10% in the context of standard learning processes like courses or workshops. Taking this into account while creating this document, the digital promoter should get an overview of the necessary competences of the employees and how to achieve them. He shall be enabled to gain competences himself as well as to contact external competences. Therefore, the chapters provide information that can be directly used by the promoter to develop training assessments for other employees concerning the acquired topics as well as integrated training apps and ideas for workplace related training methods.

Training and competences development are always related to assessment as part of the feedback loop on how progressions are being made. In this context there are three aspects that need to be considered when talking about assessment:

 Firstly, the digital competences promoter will acquire a certain knowledge and skills throughout the process of getting trained or self - studying the presented material and tools in the DC4Work online toolbox. Thus, each training module provides a quiz at the end for own review of what has been understood so far.



- Secondly, one of the promoters' tasks will also be to assess the digital competences improvement of other employees as he is the one guiding them through the upskilling process with the help of the present guideline.
- Thirdly, assessment appears as a topic in this guideline in Module 2. The assessment is perceived as important prerequisite for competences development of employees, following the principle "before you go, you first have to know where you are". Assessment can be done in different ways: self-assessment, peer-to-peer assessment as one type of external assessment, feedback talks, etc. On the other hand, assessment is also important on the way and at the end to evaluate the learning progress. For further details we recommend to study Module 2.



4.1 Work-based learning in a digital age and the companies' role

Module 1	Work-based learning in a digital age and the companies' role
Chapter 1.1	The role of leaders for digital competences development

Brief Description:

The chapter gives an overview about leadership in relation to digital change. Learn about a leadership style that facilitates digital competences development among staff. You will also learn more about how to use leadership skills to promote Leadership 4.0 Culture in your organisation. Finally the question will be raised about how to empower colleagues and your company as a whole by promoting digital competences and competitiveness.

Learning Objectives	Content & Learning Outcomes The learner is able to	Methods
Role of leaders in promoting digitalization, raising awareness for changes and sensitizing workers for digitalization	 increase own self-awareness understand the impact of leaders on others understand leaders as being role models for use of new technologies and mind sets know leadership approach promoting digital change (participative leadership, managing autonomous workers etc.) give and receive feedback work collectively to achieve results 	BRAIN PT CAS
Role of leaders for workers' development and competences acquisition	 understand the role of a skillful digital leader who acts as the champion of the project be familiar with necessary competences of digital leaders such as digital competence or literacy, but also various "softer" skills build digital competence requirements across the employee talent life cycle develop lifelong learners with skills and aptitudes to close the digital competence gap 	PT GrW
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 impact on employees dealing with self-awareness questions on own leadership style if promoter is the company's manager 	



Module 1	Work-based learning in a digital age and the companies' role
Chapter 1.2.	Setting up a learning organization

Brief Description: In the time of knowledge based economy and continuous digital transformation only learning organisations may be competitive. Knowledge creation, acquisition and transfer, however, require a supportive and open environment. This chapter presents the importance of a supportive learning environment and introduces the "learning organisation" idea. It also gives some examples of learning styles as a basis for the further designing of individual/personal learning paths. (see chapter 3 and module 2).

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Idea of a learning organization and role of technology	 characterize learning organizations understand the basic roles and functionalities of modern technology in a learning organisation: enabler of creating a supportive environment, allowing for flexibility and autonomy as well as collaboration, knowledge capturing and peer learning and assessment, co-creation and continuous improvement, etc. 	BRAIN PT CAS
Role of a supportive working and learning environment to promote digital competences acquisition	 explain social aspects of supportive environment: motivation, trust etc. explain technical aspects of a supportive environment: mobile devices, software etc. know concepts of flexibility in time and space, autonomous learning know ways of promoting workers: integration in projects related to technology etc. understand aspects of communication: apply a positive approach instead of speaking about a lack of skills 	PT GrW PW
Learners preferred learning styles in the workplace (collaborative and self- directed learning)	 explain the characteristics of different learning styles: in the workflow: as a part of their daily workplace activities continuously: through the constant flow of workplace information immediately: through solving problems to get the job done socially: through learning from others and working collaboratively autonomously: as self-directed learners understand the advantages of collaborative and self-regulated learning (learning by playing, learning by exploring, learning-by-creating, learning-by-doing etc.) 	PT GrW DISC
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	can learn from each other (company history and culture, good and bad experiences, success and failures) and what were the lessons learned create teams of mixed age employees who can help each other in	



- give constructive feedback (criticism)
- discuss with the management possible incentives programme while presenting cases/ good practices of other organisations



Module 1	Work-based learning in a digital age and the companies' role
Chapter 1.3	Integration of work-based learning 4.0 - empowering learners

The work processes as well as the instruction of new employees, or upskilling of adult employees to adapt to the modern digital environment is increasing the need for the integration of working and learning. In this context, digital technologies pool for obtaining/ boosting employees' digital skills and enable the creation of work environments with new opportunities to purposefully facilitate learning new tasks.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Models of WBL and know examples of WBL using digital technologies	 present advantages and disadvantages of WBL for the learners and employers; for the company(organization) and the society identify with ease WBL model and possible combination of models tailored to the individual's need and style of learning examples of WBL based on digital technologies: 	BRAIN PT PW PT; ROP;
	 Internet research for specialist information webinars at the workplace web-based trainings coworker training (here use infos for on-the-job training) peer-to-peer learning (using social networks) etc. 	ONLINE; EXE
Integration of learning in daily work processes (LLL)	 minimize distinction between working and learning motivate staff to learn directly at work and translate advantages of work-integrated learning explain the concept of lifelong learning describe good conditions for work-integrated learning in terms of flexibility, time and space explain the advantages of on-the-job training ie. by coworkers 	DISC PW
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	DC Promoter to draft a real (or fictional) action plan for integrating a WBL training program in their organisations and in the role of Company Manager provide comments and agree or disagree upon the proposed plan. By using joint work evaluation setting up each learner's action plan.	



4.2 Assessing digital competences in my company

Module 2	Assessing digital competences in my company
Chapter 2.1	Why do we assess our staff?

Brief Description:

Employees often feel unjustly assessed and managers often go through a forced annual process to comply with job expectations. This doesn't make it easy for either party.

It is advisable for companies and organizations to continually invest in the progress of their employees by assessing their strengths and weaknesses. By doing so, employers are better able to match employee qualification to job assignments. Employee evaluations reveal the strengths and weaknesses of individual employees as well as the collective talents of a team or department. Assessment is also a form of dialogue and an appreciation of the staff by putting efforts to their development.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Importance of qualified assessment at the workplace	 understand employee evaluation as instrument for determining whether an employee's skill set is appropriately matched to the employee's job promote the evaluation of outcomes and processes on a regularly basis and supported by measurement understand skills management as ongoing process, where individuals assess and update their recorded skill sets regularly record assessment results in a database, and allow analysis of the data, typically to assist with project staffing or hiring decisions create a formative learning experience with challenges and performance-based tests by providing feedback based on the answers received give explanations for the interpretation of test results (e.g. meaning of a weak competence) 	BRAIN PT CAS
Assessment goals	 knowing who employees are and allowing them to work in a way that works for them to identify a persons' strengths and areas for improvement and set a learning agenda to benchmark one's digital competence profile with those of other employees in the company/labour market to guide the user towards further learning opportunities based on test results. 	Brain PT EXE ONLINE
Tips for effectiveness of work-based assessment	 Sets expectations: clarifies learning intentions and criteria for success Assesses authentic performance: focuses on practice in the work environment Provides evidence of learning: gathers evidence of employees' performance and progression Encourages skill development: encourages further skill development, particularly self-directed learning. Drives work-based learning: motivates employee to learn and improve performance in the work-place Involve management into discussion about assessment Check which assessment procedures are already in place Decide on assessment goals and procedures 	Brain PT PW



- Scale assessment procedures according to companies' size and needs

Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.

Performance appraisal:

A performance appraisal is an evaluation done on an employee's job performance over a specific period of time.

Successful organizations understand the importance of incorporating performance appraisals into their performance management process and strategy. They use this tool to encourage, engage and develop their talent pool.

<u>A portfolio</u> can be seen as a dossier of evidence collected over time, which demonstrates a doctor's education and practice achievements (Wilkinson et al., 2002). In essence, a portfolio, if well constructed, should describe the journey of a learner towards the attainment of professional competence.

Functions of a portfolio

It aims to serve as the reflective learning log of the learner, available to be shared with their educational supervisor.

It demonstrates the learner's progress towards covering the breadth and depth of the curriculum.

It acts as a repository for assessments carried out as part of workplace-based assessment.

It acts as a framework for the learning agreements between learners and teachers.

It charts a learner's progression and 'learning journey', and can help in making career choices and decisions.

In the assessment of 'work', in contrast to traditional methods there is no single 'controlled' method that can be developed. A variety of sources of information will be needed, which gives rise to the notion of a 'tool-box' of approved methods (see below). In considering the individual tools it is worth recognising that, even unstandardised, they can be made sufficiently reliable, provided enough sampling occurs, and the tools are used sensibly and expertly (van der Vleuten and Schuwirth, 2005).



Module 2	Assessing digital competences in my company
Chapter 2.2	How to map digital knowledge, skills and competences?

Digital competence improvement should have a clear foundation. In this module, you make yourself familiar with recording and assessing digital skills. Which methods and instruments exist to carry out this task? Which concepts you should have heard of?

Which digital competences are important to assess? This knowledge will enable you to suggest means for digital upskilling in your company.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Necessary digital competences for a specific job profile (= targeted state)	 know reference points for orientation, such as: operational requirements: which business processes require digital skills and which ones will be necessary in the future examine relationships to customers and partners to gain valuable information about new technologies or tools in other areas already being tested and used, changing applications and how communication with customers or guests can be designed differently existing competence catalogues, ie. DigComp. Framework of the EU and other 	CAS BRAIN, DISC INDW, Research
Reference framework "DigComp" as general basis for a formal digital skills assessment	 explain and apply the DigComp framework to staff draw up job descriptions including DigComp aspects apply the framework to define learning requirements and use it as source for internal learning plans 	Brain PT EXE ONLINE
Recording and assessing existing digital knowledge, skills and competences (= actual state)	 communicate reasoning for assessment: letting employees know exactly why the move is good for them, how it will result in positive changes to their job and the ways in which the knowledge will make their tasks simpler distinct between formally and informally acquired digital skills recognize the importance of attitude towards technology and digital applications – role of positive mind-set know methods for recognizing existing potentials of employees, often coming along as informally acquired digital skills and attitudes: observations annual staff appraisal self-assessment of employees, ie. survey or poll among employees (possibly online) use digital technologies to enable learners to reflect on and self-assess their learning process (DC Check) project work / co-operation in mixed teams identify unconventional thinkers or pioneers job interview documentation of flexible pathways (record book, log book) 	GrW, PT ROP, EXE GrW -> each group researches one method and presents it to the other party CAS Video
Comparison of actual and targeted state (skills matching)	 update the job description or the task area for a specific job profile 	Exemplary discussion using a



	 identify the need to catch up with certain digital skills and the extent to which this needs to be done choose the appropriate level of systematization: from informally settings to documented job descriptions and goal agreement systems manage the regular dynamic process of up-skilling
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 include employees in the assessment process by explaining them goals and pointing out positive effects evaluate (assess) with the help of the self-assessment grid DIGCOMP digital competence of your employees test planned assessment procedures with smaller pilots spot competences improvements for example by: actual (live) practice some sort of recording of practice products produced as a consequence of practice (e.g. web-site) some sort of commentary on practice (ideally, reflective) some more general disquisition relating to practice, and/or combinations of the above discuss in a responsible team how job descriptions would need to be rewritten to meet future task of and expectations on employees



Module 2	Assessing digital competences in my company
Chapter 2.3	Providing feedback to foster learning motivation

Frequent employee feedback is one of the best practices for tracking employee progress and improving it time to time. This practice does not only help the employees but helps the team and the entire organization increase their productivity.

Feedback should be spontaneous and regular. For more serious issues a formal meeting is appropriate or a discussion as part of performance review, but building feedback into your day to day encounters with employees is a great way to develop rapport, and encourage an environment in which people feel comfortable to give and receive feedback.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Interpretation of skills assessment and formulate feedback in a supportive manner	 apply reflective practices provide critical feedback on digital policies and practices: adapt teaching and assessment practices, based on the data generated by the digital technologies used. provide personal feedback and offer differentiated support to learners, based on the data generated by the digital technologies used. enable learners to evaluate and interpret the results of formative, summative, self- and peer-assessments. assist learners in identifying areas for improvement and jointly develop learning plans to address these areas. use digital technologies to enable learners to remain updated on progress and make informed choices on future learning priorities, optional subject or future studies. 	BRAIN PT CAS
Ways to give effective employee feedback	 know different steps to give effective employee feedback be Very Specific Make it one-on-one Don't Wait for a Quarterly Review End on a Positive Note Focus on Performance, Not Personality Focus on Individual Efforts 	Brain PT DISC ROP
Methods & Instruments	- apply different assessment methods & instruments such as: o Staff evaluation forms for employee self-assessment equalize supervisors' performance appraisals of their employees. o 360-Degree Feedback o Peer Evaluation o Focus Groups	Brain PW ONLINE
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Feedback is communicated to a person or a team of people regarding the effect their behavior is having on another person, the organization, the customer, or the team. Positive feedback involves telling someone about good performance. Make this feedback timely, specific, and frequent. Constructive feedback alerts an individual to an area in which his performance could improve. Constructive feedback is not criticism. It is descriptive and should always be directed to the action, not the person. The main purpose of constructive feedback is to help people understand where they stand in relation to expected and/or productive job behavior. Recognition for effective performance is a powerful motivator. Most people want to obtain more recognition, so recognition fosters more of the appreciated actions.	



4.3 Methods how to improve digital competence in my company

Module 3	Methods how to improve digital competence in my company
Chapter 3.1.	Self-directed informal learning

Brief Description:

In developing digital competence in work, self-directed learning is an economic necessity. New knowledge so rapidly that many traditional education paths can't keep pace. In self-directed learning individuals take the initiative of their learning needs, identifying available resources and choosing appropriate learning strategies.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Awareness of efficient self-learning strategies and capability to plan personal learning process	 - understand the idea of self-directed learning and recognize efficient self-learning strategies - set personal learning goals and choose personal strategies for learning - implement self-directed learning strategies in his or her personal learning environment 	Self-studying Peer-learning Active learning
Awareness of open learning resources available for self- learning in his or her personal working and learning environment	 - recognize open learning resources available in his or her working and learning environment - utilize open learning resources available in his or her working and learning environment in his or her personal learning - understand self-learning strategies as instruments for continuous, life-long learning at work - promote self-learning strategies as a regularly basis at learning at work 	Self-studying Peer-learning Active learning
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Employees are not always aware of free, practical ways and self-learning strategies, they can use in updating their skills and knowledge at work. Making the strategies explicit and discussing about them openly support employees to recognize and find several open resources and opportunities for learning in their own working environment. This is important for supporting employees' life-long learning, learning at work, and for incorporating cost-efficient methods for up-to-date skills development at work. - Involve management into discussion about self-learning strategies at work - List self-learning strategies and opportunities for learning in the working place - Brainstorm open learning resources and make them explicit in the working place - Plan how to encourage employees to self-learning at work	



Module 3	Methods how to improve digital competence in my company
Chapter 3.2.	Collaborative facilitating methods for digital competence development

Considering the existence diverse learning needs and preferences, a range of collaborative facilitation methods support digital competence development in companies. Collaborative methods are effective for accelerating work-based learning and knowledge sharing. The methods are context-sensitive and support participants' engagement and motivation to learning at work.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Awareness of collaborative facilitation methods to plan and support knowledge sharing and collective learning at work.	 understand the idea of collaborative facilitation methods list several efficient facilitation methods like Learning Café, Gallery Walk, Backcasting 	Self-studying Peer-learning Group learning Active learning
Capability to implement collaborative facilitation methods in learning digital competences at work.	facilitation methods at work - plan how to support collaborative facilitation methods	Self-studying Peer-learning Group learning Active learning
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Collaborative facilitation methods offer efficient and cost-free ways to support employees' knowledge sharing and new knowledge building. After getting familiar with collaborative facilitation methods employees make a plan what challenge of digital competence needs to be improved in the company and how to use collaborative facilitation method in promotion of skills of employees.	



Module 3	Methods how to improve digital competence in my company
Chapter 3.3.	Collaboration with educational institutions

Collaboration with educational institutions offer new and innovative methods for companies' digital competence development. Students from vocational and higher education institutions solve companies' digital challenges, offer digital tutoring for employees and co-innovative new digital working practices with employees.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Awareness of several approaches for collaboration with educational institutions in digital competence development.	 apprehend the several approaches for collaboration with education institutions such like case examples Amazing Business Train, CSchool and HAMK5 reflect and assess the possibilities and benefits of collaboration with educational institutions in digital competence development 	Self-studying Peer-learning Group learning Active learning
Capability to plan, implement and assess collaboration with educational institutions in digital competence development.	- plan, implement and assess a practical experiment with a local educational institution for company's digital competence development	I
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Collaboration with educational institutions offer new, innovative and cost-efficient possibilities for companies for developing their employees' digital competence. It is resource-wise to get networked with local educational institutions for mutual benefit. The companies receive new resources, ideas and energy from students to their challenges and students receive a possibility to get familiarized with the world of work. The employees map the local educational institutions, get connected and start brainstorming for an experiment of collaboration.	



Module 3	Methods how to improve digital competence in my company
Chapter 3.4.	Open Badges for successful digital competence development

Open Badges concept is an efficient, fun and cost-saving method for digital competence development in SMEs. Open Badges make digital competence development visible, explicit, easy to monitor and assess. Companies can create their own Open Badges for those competences that are crucial for their own business or branch.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Awareness of Open Badges concept and how to operate with it in general.		Self-studying Peer-learning Group learning Active learning
Capability to plan, implement and assess collaboration with educational institutions in digital competence development.	- plan, implement and assess Open Badges implementation in a company's digital competence development	, ,
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Open Badges concept is an efficient, fun and cost-saving method for digital competence development in companies. After getting familiar with the concept of Open Badges, employees start planning the company-based Open Badge constellation (topics, learning objectives, assessment criteria, how to make competence visible). The planning includes also analysing and mapping the most important development needs that can be supported by Open Badges. The planning process includes also assessment of different platforms available for Open Badges (e.g. Open Badge Factory, OERCommons, Badgr, BadgeOS) and choosing a suitable platform for the company use.	



4.4. Basics for digital competences development in SMEs (cross sectors)

Module 4	Basics for digital competences development in SMEs (cross sectors)	
Chapter 4.1.	Hardware skills and digital infrastructure	
	Diverview of the most important hardware components and their function nology. It enables the user to solve simple problems concerning hardware.	
Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Basic principles on hardware	 name and localize the main hardware components of workstations and mobile devices understand the main network components and peripherals (printer, scanner, sound system, multimedia system, alexa,) handle terminology and definitions of computer hardware (hard drive, motherboard, graphics board,) diagnose and analyse hardware malfunctions substitute hardware components 	BRAIN PT visual aids unscrew a PC
Basics of networking technology, EDP and troubleshooting	 use telephone systems and VOIP set up wireless networks diagnose and analyse network transmission errors prevent hazards and adverse events ("Hands off! topics") diagnose the most common problems concerning network problems and basic troubleshooting 	BRAIN PT EXE
Learning opportunities at the workplace: to facilitate the competence development	 Images of different hardware components Presentation of troubleshooting guidelines Solve a hardware or network problem and perform a basic tracenario Watch a video about hardware and network setup 	oubleshooting

Project work about network setup

regarding the content of this chapter.



Module 4	Basics for digital competences development in SMEs (cross sectors)
Chapter 4.2.	Software skills and data literacy

Digitalization provides a variety of possibilities to rise efficiency and effective outcome of a company by the use of digital sources such as search engines, free programs, etc. The aim of this chapter is to enable the digital promoter to use existing tools to effectively find, evaluate and use data, information and content.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
basics about software and storage media localisation of digital content	 understand how information processing works use storage devices to conserve data find data, information and content in a digital environment articulate information needs and search for relevant data develop and update personal search strategies 	Brain EXE OJT ONLINE
Data management basics	 organise, store and retrieve data in a structured environment administer bookmarks 	EXE PrW
Critical evaluation of data Background knowledge about websites	 analyse, compare and critically evaluate data sources and digital content understand the basic structures of a website distinguish between Shortcodes, functions, Metainformation, templates, category-tagging, SEO parameters, 	PT EXE PT
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 exercises with different topics implementing the competences taught in this chapter. Creating a blog following the instruction on the following website (http://www.23things.ed.ac.uk/) (the content of this blog should be concerning the company's tasks in order to be useful and implementable) 	



Module 4	Basics for digital competences development in SMEs (cross sectors)
Chapter 4.3.	Internal and external use of communication and information tools

The chapter gives a basic knowledge about digital communication and collaboration within the company as well as with potential customers. It introduces competent use of social networks and communication platforms for exchange and marketing as well as useful digital communication tools. Different kinds of storage systems are introduced and discussed.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Online cooperation and virtual workplaces	 optimize workflows and information exchange reduce space, equipment and paper load ensure data access and local flexibility 	PT DISC
Online data storage systems and cloud computing	 work with different types of cloud storage systems evaluate risks and benefits of cloud storage systems create user accounts 	BRAIN PT Video (HP)
Social media and competent digital networking	 use existing social media for information spreading distinguish the existing media in points like user age, target group, reachspan, take cultural and generational diversity into account 	Brain ONLINE
Competent and coherent appearance in online media	 act according to behavioural norms of digital interaction follow communication strategies show sensibility towards cultural and generational diversity 	ONLINE PrW
Web based applications	 use office applications for text editing, email clients, spreadsheet calculations, evaluate differences between onedrive and googledrive work with shared documents, shared calendars and todo lists set up of a remote client and VPN network 	BRAIN PT
Mobile tools	 use smartphones and tablets as mobile tools for data collection and data transmission name and evaluate existing service providers use mobile tools according to the status quo of data protection 	PT EXE
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 Presentation of different communication systems for interrexternal use. Implementation of useful systems (clouds, skype,) in the everyday life. Group works that can be implemented in the ongoing works. 	company's



Module 4	Basics for digital competences development in SMEs (cross sectors)
Chapter 4.4.	Creation and transformation of digital content

The problem of managing content and information is not born with the internet but is occupying humanity since centuries. With the digitalisation, the amount of accessible information has multiplied which leads to a major storage problem. This chapter shall provide the promoter with knowledge of how to classify, evaluate, create digital content. The term content management system (CMS) is introduced and explained.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Distinguish between different types of content	 explain the term digital content classify digital content by technique - texts, images, audio, videos classify digital content by content - informative content, advisory content, educational content, entertainment content 	Brain PT
Understanding of CMS basics	 understand the term CMS and get an idea about the job of a content manager evaluate and work with existing CMS programs 	PT
Creation and transformation of digital content	 create digital content (e.g. data, text, multimedia, etc.)? improve and transform existing context apply useful applications for mobile devices 	GrW PW
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 Examples of different digital contents and content management systems Interview with an content manager Projects including the creation of company specific digital content Presentation of different CMS tools 	



Module 4	Basics for digital competences development in SMEs (cross sectors)
Chapter 4.5.	Safety principles and legal regulations

Safety and legal guidelines are two important aspects that have to be taken into account when entering the digital playground. In this chapter we will treat basic guidelines for a safe internet use and the minimisation of safety lacks, as well as basic legal instructions concerning data security.

Learning Objectives	Content & Learning Outcome	Methods
Loanning Objectives	The learner is able to	incuious
Localisation and awareness of security risks	be aware of existing risks in a digitalised workplace and possible consequences for the company	PT EXE
General safety measurements and prevention	 apply safety tips when handling emails and passwords implement computer virus protection for a safe web surfing identify account phishing (e.g. Amazon website) as well as malicious emails, spot phishing mails and fraudulent links to fake websites or documents identify and verify sender of emails in Microsoft Outlook social engineering distinguish trusted websites and encrypted email transmission 	PT GrW EXE
Protection of data and computer systems	 exercise computer storage backup strategies understand about the function of firewalls 	PT GrW
Regulatory requirements of European data protection/ Copyright and data use/ data privacy protection	 prevent and handle data loss summarize the main content of the European general data protection regulation and its applications on data security use mobile tools safely and ensure data protection 	PT GrW PrW
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 Presentation of safety guidelines for hard- and software Information about efficient ensurance of digital safety of Examples of safety risks and case studies Introduction of internal safety measures 	data



4.5 Basics for digital competences development in touristic SMEs

Module 5	Basics for digital competences development in touristic SMEs
Chapter 5.1.	Website generation and search engine optimization

Brief Description:

The knowledge about content management systems (CMS) and search engine optimization (SEO) is important for the creation and the constant improvement of sector specific websites. As it is largely more expensive to find new customers than to invest in the satisfaction of existing clients, customer relation management systems (CRMS) are also introduced as an effective tool to systematically improve customer relations.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
CMS use in the tourism sector	 realise website creation employ existing CMS products 	PT
Factors for search engine optimization (SEO)	 understand the factors of search engine optimization (SEO) and of sector specific keywords use googleAnalytics and googleAds for the sector of tourism understand the influence of semantic technologies on customer behavior 	PT
Effective use of CRM tools	 understand CRM systems and its support on customer relations for a company evaluate differences between CRM systems 	PT DISC
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	SEO guidelines for a successful web appearance Projects for optimisation of the company's website Projects to design a website with different CRM tools Introduction of the programs googleAnalytics and google	eAds



Module 5	Basics for digital competences development in touristic SMEs
Chapter 5.2	Management of databases and data processing

An increasing number of customer databases are developed in order to collect and systemize information about potential clients. Knowledge about creation and management of these databases are the base for successful database marketing and the understanding of customer behaviour. Existing DBMS software simplifies the use of databases for successful customer relation management and database marketing.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
databases use	 handle online booking systems and integrate different external booking systems into one database (booking, expedia, hrs, hotels.com) extract customer data for the creation of newsletters analyse data for market surveillance and pricing 	PT CAS
Creation and evaluation of databases	 set up a customer database evaluate different database management systems with their pros and cons 	PT EXE DISC
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Presentation of a list of leading booking systems Tips and checklists how to work with databases - projects and exercises to reinforce and apply new information Exercises about filtering customer data and market surveillance	



Module 5	Basics for digital competences development in touristic SMEs
Chapter 5.3.	Online reputation and successful digital marketing

This chapter contains information about flexible marketing and pricing strategies, as well as good online reputation management. These aspects determine long-term success of a company in the digital world, where transience is one of the main characteristics.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Online grading systems	 increase online reputation through online grading systems (e.g. trip advisor, hotelcheck, etc.) manage (positive and negative) customer comments name legal aspects influencing online reputation 	BRAIN, PT
Marketing strategies	 plan customer specific online campaigns plan market specific online campaigns analyse user behaviour apply successful strategies of digital content marketing understand the status quo and aims of content marketing controlling 	BRAIN, PT
Pricing strategies	 understand pricing strategies with different online booking providers (booking, expedia, e.g.) evaluate the booking behaviour and accompany the customer through the booking process 	PT CAS, PW
Digital marketing tools	 know about existing digital marketing tools and their implementation in tourism specific marketing strategies Websites and blogs Emails and newsletters Social networks microblogging Wikis communities and forums Webinars and web conferences (useful in the sector of tourism?) Videos and podcasts Mobile apps 	BRAIN, PT
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Guidelines for successful online campaigns and digita Presentation of marketing tools that are used in the to Creation of a web campaign for the company (contest)	urism sector



Module 5	Basics for digital competences development in touristic SMEs
Chapter 5.4.	Influence and organizational impact of new technologies

Innovations and new technologies result in challenges as well as new opportunities for the tourism sector. This chapter gives an overview of the existing and upcoming possibilities to increase customer satisfaction by applying new technologies. At the same time, it points out the upcoming changes for workplace organisation and the accompanying challenges for employees.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Overview over the development of the last 60 years	 understand changes coming from new digital developments name milestones of the digital developpement 	PT BRAIN
Digitalisation as a mean to increase customer convenience	 name and eventually apply existing digital devices that help rising customer satisfaction: chatbots interactive touchscreens virtual reality tools webcams/ lifecams self service cashiers hotel key apps smart luggage tracking e-tickets understand interaction between digital and analog world 	PT GrW PrW
Digitalisation of workplaces	 understand the influence of digitalisation in different working areas: reception kitchen service facility management tourism associations 	PT CAS
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	 Demonstration of existing tools that help rising custor satisfaction in the tourism sector Discussion about the pros and cons of the ongoing di Hands on projects with different tools Demonstration of workplace changes 	



4.6 Basics for digital compentences development in commercial SMEs

Module 6	Basics for digital competences development in commercial SMEs
Chapter 6.1.	Digital Marketing

Brief Description:

Digital marketing is part of everyday business. Whether marketing is about getting new customers, staying in touch with existing customers or managing the customer base, all these areas are increasingly digital. This module focuses on the need of developing digital marketing, different approaches to connecting with customers and options of digital marketing channels. It familiarizes SMEs with the key elements of digital marketing and introduces useful tools for development of companies marketing efforts.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Participant understands the need for developing digital marketing in SMEs and can identify different approaches and tools	 Understand how digitalization has affected marketing Recognize how digitalization has affected customer behaviour Familiar with different marketing approaches Marketing the image Marketing with expertise Marketing as service 	Self-studying Peer-learning Group learning Active learning (PT, article, video)
Participant can identify different approaches and tools used in digital marketing	 Familiar with different marketing tools webpages Google Adwords Facebook Instagram LinkedIn Blog 	Self-studying Peer-learning Group learning Active learning (PT, article, video)
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Reflect on how digitalization has affected marketing in your company. Look for changes in customer behavior due to digitalization. Identify how your company could better respond to changes in customer behaviour and which digital marketing tools need to be better utilized in the process.	



Module 6	Basics for digital competences development in commercial SMEs
Chapter 6.2.	Customer understanding in the digital age

Digitalization helps to build up customer profile as well as customer channels and to visualize the customer journey. Growing customer understanding leads SMEs to choose the right channels and tailor their message to better serve their customers.

		T
Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Participant is familiar with customer understanding in digital age and can identify different customer segments and channels they use.	 Understand the opportunities that digitalization offers in growing customer understanding Define different customer segments Choose right channels 	Self-studying Peer-learning Group learning Active learning
Participant understands the meaning of customer journey and importance of connectivity in different phases of the journey.	 Visualise customer journey Understand how to connect with customer in different phases of the journey 	Self-studying Peer-learning Group learning Active learning
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Draw a visual line of customer journey based on the information you have. Identify the phases of the customer journey where your company connects strongly with customer. After that, identify the phases where you need to improve your connection with the customer. Discuss about these findings with your team and look for ways to increase your connectivity throughout the customer journey.	



Module 6	Basics for digital competences development in commercial SMEs
Chapter 6.3.	Managing customer data

Digitalization opens up new possibilities for managing and utilizing customer data. This module offers brief introduction into customer data and some practices on how to manage it. Deeper and more detailed customer information enables SMEs to better target their marketing efforts and to increase return on their marketing investment.

Learning Objectives	Content & Learning Outcome The learner is able to	Methods
Participant is aware of the possibilities of digitalization in customer data management and familiar with different approaches to it.	Understands what customer data is and how it can be used to benefit SMEs Utilize customer data analyzes and enrichment	Self-studying Peer-learning Group learning Active learning
Participant is familiar with some of the tools used in customer data management	 Familiarize with some of the tools used in customer data management Use search engine optimising to grow your visibility and sales 	
Learning opportunities at the workplace: to facilitate the competence development regarding the content of this chapter.	Identify your companies main customer segments. Look into how much customer information you have on these segments at the moment and if there is some important information that you are missing. Define how to better use customer data analyzes and enrichment to collect this information. Identify a customer segment that your company would like to reach better. Define the channels that would connect well with this particular customer segment.	



5. Training Toolbox

The Toolbox provides resources and tools to facilitate the knowledge acquisition of the digital competences promoter as he needs to inform himself about certain digital topics and trainings before supporting colleagues. Furthermore the toolbox will be the main instrument to fulfill his tasks from a practical point of view. The promoter will find online different instruments and knowledge bits in form of videos, checklists, websites for reading, tests etc.

The toolbox is organized as Open Education Resource (OER) in a responsive design - open for all interested learner and usable with different digital devices.

It is divided into six focus areas (modules) that reflects the module structure of this guideline. Hence the user enters the toolbox getting a direct overview on the different topics connected to digital competence development in companies:













We welcome everybody to suggest own tools that turned out to be helpful for your work in terms of digital competences development of your employees. Please contact us in this case also using the contact details above.