



DEVELOPING, ASSESSING AND VALIDATING TRANSVERSAL KEY
COMPETENCES IN THE FORMAL INITIAL AND CONTINUING VET

TRACK-VET SYNTHESIS REPORT

Chapter:

Descriptions of transversal key competences and their location in curricula

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The architecture and content of curricula and qualifications is an important factor shaping the school reality and influencing human learning. The first section of this chapter provides a general overview of the discourse on learning outcomes, presenting areas in which their effects on education, institutional and political aspects and meaning for the quality of work and life are being discussed.

However, in this report, we propose to look at the “architecture and content of curricula and qualifications” in a very literal way – at the structures, sentences and words used to describe them. The chapter presents the results of tracking selected key competences in the curricula.

The following sections of the chapter are focused on synthesis and findings concerning the following exploratory questions:

- Where are TKC’s to be found in educational documentation?
- What is the scope of their representation?
- How are they being described/formulated?
- Who is responsible for the description of TKC’s in documentation?
- Are NQF level descriptors taken into account when designing the descriptions/requirements?

The analysis of the TKC’s descriptions entails analysis of their representation and distribution across a range of documents which define what is being taught, learned and assessed within IVET. The analysis’ results may be useful for actors developing these documents in any country as well as in designing and evaluating public policies for education and labour market.

The synthesis is supported by numerous examples of formulations of learning outcomes related to TKC’s. The full database of outcomes is available on the TRACK-VET project website: www.track-vet.eu. We provide these examples with the intent of providing a useful point of reference and a resource for all those, who are involved in the shaping of educational goals, requirements and criteria concerning transversal key competences in vocational education and training.

Explanatory note 1. Limitations of analysis of learning outcomes descriptions within TRACK-VET project

This chapter is focused on the location and formulation of learning outcomes in the curricula and their location. Identification and analysis of this information are the research goals of the TRACK-VET project. However, drawing any further conclusions from this analysis requires previous consideration of the following premises:

- The programme documents do not provide a representation of school reality. For once, as any description, it can only be a poor match for reality. Secondly, the realization of the policy-makers vision is formally expected of school principals and teachers, however, the vision may be interpreted and implemented in different ways – this is especially relevant for transversal key competences;
- The programme documents provide a picture of expected learning outcomes. It is useful to think of the core-curriculum as a policy-makers vision. It is subject to policy decisions, resulting in an additional focus on specific issues. As a result, analysis of core curricula may bring a more representative view of policy goals, than it does of reality;
- The learning outcomes in (core) curricula are the basis for preparing external examinations. This often creates a specific bias, namely limiting (especially) the detailed part of the curriculum to measurable and observable learning outcomes, which might lead the reader of these standards away from didactic realities of pupil formation in schools. Or as some authors suggest, this bias might also lead reductionism in education, where teachers limit their didactic approach to these measurable and observable learning goals (Hussey & Smith, 2002; Lassnigg, 2012).

Introduction to the discourse on Learning Outcomes

Learning outcomes have become a common element of the educational landscape. Their proponents argue that they are a useful medium for stakeholders and the modern language for communication concerning skills. The opponents argue that they convey ideological baggage and result in practical consequences which distort education. This section is intended as an introduction providing a critical perspective on learning outcomes as well as a precautionary tale – since the words we use may begin a life of their own – become a simulacrum.

Whatever stance one takes in this discourse, the learning outcomes are here to stay – and they will continue to be described (formulated) and assessed, and they will influence the teaching and learning. There is no reason to assume that key competences will be an exception, however it seems that they are not strongly affected by the learning outcomes approach (yet!). We provide a brief look at the origins, contexts and critique of learning outcomes to support readers in making the best of this chapter and the following ones. Assessment is one of the key aspects that need to be considered – but it is the learning outcomes that state “what is assessed”.

The concept of learning outcomes has no one origin, its elements have been used in different settings for at least half-century. The concept of competence can be traced as far as Plato and ancient Greece (Weigel et al., 2007). Some notions related to learning outcomes can be found in behaviourist theories, as observable changes in behaviour. The idea first gained prominence in the early 20th century in the United States, under the influence of the ‘efficiency cult’ (see: Callahan, 1964; Hyland, 1994). In the 1960s, the movement for ‘criterion referencing’ and later the notion of ‘scientific curriculum’ emerged from US practice (Kliebard, 1975; Popham, 1971). The popularisation of those concepts was ‘transmitted’ together with Bloom’s taxonomy, further used and developed in Europe (see: Anderson et al., 2001; Bloom, 1956; Krathwohl, 2002; Kruszewski et al., 2003). The learning outcomes seem to have been, and remained, a technical term for education specialist – usually used to denote the intended learning outcomes (sometimes also the learning goals) and, perhaps less often, the actual outcomes of learning (either intended or not).

At the same time, parallel concepts of competence have been developed and used for the shaping of learning and teaching, and also formulating expectations for the outcomes of learning. Different understandings and the use of the concept of competences have often evolved in the contexts of national, sectoral or economic regimes, and rarely have been confronted with each other. As a result, we have different understandings of the concepts in different countries (i.e., in France, UK, Germany or the US), as well as in different domains of education and the labour market, in vocational, general and higher education (Brockmann et al., 2008; Hyland, 1998; Le Deist & Winterton, 2005; Winterton et al., 2006). It should also be mentioned that both the previous centrally planned economies and market economies also used the concepts differently. The initial theories and experiences related to competence, occupations and vocations, recruitment, employment and, last but not least, education (e.g. ‘competence-based training’) influenced the learning outcomes as we know them today in our national practice. This has been (and still is!) happening through various channels of policy creation and transfer – the intra-national political relations shaping

skills formation (P. Brown et al., 2001; Busemeyer & Trampusch, 2012), the influence of international trends and policies (Cort, 2010b, 2010a; Dębowski & Stęchły, 2015; Lawn & Grek, 2012), as well as theory diffusion between actors such as the professionals, academics and teachers (Biesta et al., 2013; Carr, 2006; Crossouard & Pryor, 2012; Thomas, 2007). Hopefully, this chapter will contribute to shaping the way one thinks about learning outcomes and competences.

In many countries, the concepts used are modified under the influence of ideas elaborated collectively in the EU – this is actively supported by the open method of coordination, the peer learning and peer pressure (Lawn & Grek, 2012). This influence can be seen in initiatives related to Bologna and Copenhagen processes in the EU, e.g. developing national occupational standards, adopting the EQF and ECVET Recommendations or the changes in the approach to qualifications and curriculum. The resulting institutional isomorphism can be seen vividly in the VET systems with a history of economic and political disruption.¹ Examples include the development of reforming NQFs in many countries, implementation of credit points, curriculum reforms etc. This is, of course, an ongoing process. In some cases, the existing approaches have been continued and are now contributing to the diversity of national approaches (e.g., Germany, Austria, France, Netherlands, UK) (Bjørnåvold & Chakroun, 2017; Cedefop, 2012b, 2015b).

Learning outcomes can be described in many ways (Adam, 2007; Hussey & Smith, 2003). According to European Qualifications Framework for lifelong learning (EQF), learning outcomes are regarded as ‘statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined as knowledge, skills and competences’ (European Parliament and the Council of the EU, 2008/C 111/01 and 2017/C 189/03). European Union documents related to both vocational education and training (VET) and higher education (HE) call for implementation and further work on the use of learning outcomes. Education and training are increasingly seen as important for achieving goals related to issues of economic growth and employment, as well as social inclusion. And the learning outcomes approach follows through – reflecting these aims in their form and content.

Practically all European Union lifelong learning policy tools (such as EQF, ECVET, ECTS, EQAVET, ESCO, Europass) are based on learning outcomes. The range of use of the approach and the associated shift in education, policy discourse and practice is said to be a paradigm shift (Adam, 2008; Cedefop, 2009; EC, 2011). The Council Recommendation on key competences for lifelong learning also suggests that “Key competence descriptions could translate into frameworks of learning outcomes that could be complemented with suitable tools for diagnostic, formative and summative assessment and validation at appropriate levels”.

Numerous publications offer an indication of the potential benefits of the learning outcomes approach (Adam, 2007; Cedefop, 2009, 2010, 2015b; OECD, 2007), such as:

¹ However, as some of our interviewees indicate, one should be cautious – if the change is a meaningful transformation or mimicry.

- transparency of qualifications, clear information on the content of qualifications to learners and employers,
- improvement of links between education and the labour market,
- increased permeability between the sectors of education (e.g., VET and HE) and international mobility of learners and workers,
- facilitating recognition of learners' achievements (among others, the validation of non-formal and informal learning, credit accumulation and transfer),
- increasing the qualifications' quality.

These benefits have received the attention of policymakers in European countries. The widespread development of NQFs and learning outcomes-based qualifications are often treated as examples of their attractiveness (Brůha et al., 2018; Cedefop, 2014a, 2014b, 2015a; ETF, 2014; ETF et al., 2017, 2019).

However, in many countries, the solutions are often found to be difficult to implement in practice or the expected benefits are not observed. Many challenges related to LO-based policy implementation are being mentioned in the literature. Most recently by Winch (2020).

The European definitions of basic concepts, such as competence, learning outcomes and qualifications, are not precise enough; the understanding of these terms differs significantly within and between countries. Some argue that these concepts are too simplistic to encompass the complex reality of education and national VET systems in Europe (Bohlinger, 2008; Brockmann et al., 2008; A. Brown, 2008; Grollmann et al., 2006; Young, 2005).

Learning outcomes are used for different purposes (design of curricula, teaching, assessment, recognition of prior learning), on different levels (institutional, national, international), and the way they are used differs between countries and systems (e.g., general education, VET, higher education). Examples of purposes include: formative and summative assessment, recognising personal development and engagement in learning, preparing for further learning or training, preparing for employment, confirming occupational competence or license to practice, updating and continuing professional development, increasing system flexibility, increasing student mobility (see: Annen & Eberhardt, 2013; Cedefop, 2012a, 2017; Hussey & Smith, 2003; Werquin, 2012).

In the case of initial VET, learning outcomes are used to structure many elements of the system, involving stakeholders at different stages and in different ways. The aspects that are being influenced with use of LO's can be linked with provision of training, design of learning processes, design of occupational standards and occupational requirements in curricula, development of resources as well as feedback information on educational activity (Cedefop, 2013b, 2013a).

It is not uncommon to hear a reminder, even during EU events for learning outcomes experts and policymakers, that the latter seem to forget that the learning outcomes will eventually be used on the ground level. There is often a striking difference between

what they are supposed to be for policymakers and what they are for practitioners in the field. The success or failure of LO policies will ultimately depend on how they are used by teachers, the capabilities of social partners, etc. And still, only seldom the training of teachers preceded their implementation.

The financial aspects of LO's implementation are rarely discussed, despite the fact, that the process of developing qualifications is expensive. Their manifestation and possible uses will depend on a wide array of circumstances. In the case of VET, these particularly include the organisation of work in enterprises, industrial relations and social dialogue, models of skill formation (Busemeyer & Trampusch, 2012; Crouch, 1993; Crouch et al., 2001; Greinert, 2004, 2005; Powell et al., 2012; Winterton, 2000, 2007).

The learning outcomes approach, promoted, among other ways, in the EQF and NQFs, is affecting the existing relations between stakeholders, creating tensions between actors by empowering some of them at the expense of others, influencing the existing educational systems (Allais et al., 2009; Bjørnåvold & Coles, 2007; Cedefop, 2013b, p. 2013). Some authors question if that shift is desirable (Allais, 2014; Lassnigg, 2012), others criticise the learning outcomes approach and EU policies as part of a wider political shift associated with notions of neoliberalism, Fordism or managerialism (see: Allais, 2011; Brine, 2006; Óhidy, 2008; Trowler, 1998; Yang & Valdes-Cotera, 2011).

In summary, it seems an accurate summary to alter the Wittgenstein's famous aphorism, by saying: *The meaning of learning outcomes lies in their use*. And the literature seems to suggest that we have relied too much on the experts' definitions and/or policymakers justifications.

Location of the TKC's in documents

In all countries, TKC are (in some form) present in strategic documents and overarching educational laws (often the main act regulating school organization or the whole education system). Especially the high-level educational acts provide an overview to see in what words, categories and using which concepts are the most general educational aims described. The table below includes statements taken from country reports, some of which apply to the whole education system, others to the VET strands.

The formulations presented are declarations of intent. And in some way, they resemble political slogans. This can be attributed to their generic nature and positive sentiment in the text. We can see different framings for TKC's – 'utilitarian' or 'collectivist' and a 'humanistic' or 'learner-centred' approach. This reflects a complicated set of aims of education, which are responsible for preparing young humans for further development and enables to flourish (the humanistic perspective), equipping them with necessary means for work and life. Finally, education is key in the socialisation process. The main point here is not the accuracy of labels, but the width it shows for further understanding of any transversal competence, especially social competence.

Table 1. Selected quotes presenting the general aims of education systems in 6 European countries.

Country	Descriptions of educational aims
Austria	<p>“The Austrian school has the task of contributing to the development of youth's dispositions according to moral, religious and social values as well as the values of the true, the good and the beautiful by means of a course appropriate to their level of development and their educational path. It has to equip the youth with the knowledge and skills necessary for life and future jobs and to educate them to learn independently.</p> <p>The young people are to be trained to become healthy and health-conscious, fit to work, dutiful and responsible members of society and citizens of the democratic and federal republic of Austria. They should lead to independent judgment, social understanding and an active sporting lifestyle, be open to the political and ideological thinking of others and be empowered to take part in the economic and cultural life of Austria, Europe and the world, and with a love of freedom and peace in the common tasks to participate in humanity.” (§ 2. Task of the Austrian school, SchOG 1962)</p>
France	<p>“Compulsory education should at least provide all pupils with the necessary means to acquire a common core made up of knowledge and competences which must be mastered to successfully complete their schooling, continue their studies, forge their personal and professional future and become successful members of society”. (Act no. 2005-380 of 23 April 2005 relating to orientation and planning for the future of schools, stipulates, in article 9 “Common Core of Knowledge and Competences”)</p>
Latvia	<p>“education is the process of systematic acquisition of knowledge and skills and development of attitudes, and the result thereof. The result of education is the totality of knowledge, skills and attitudes of a person” (Education Law, 1991)</p> <p>“to ensure a student with the knowledge and skills necessary for personal growth and development, civil participation, employment, social integration and continuation of education”; “to promote the improvement of a student as a mentally, emotionally and physically developed personality and to develop habits of healthy lifestyle”; “to promote a socially active attitude of the student, retaining and developing his or her language, ethnical and cultural particularity, as well as to improve understanding regarding the basic principles of human rights included in the Constitution of the Republic of Latvia and other legal acts“, “to develop the student’s ability to learn and improve independently, to motivate him or her for lifelong learning and an informed career”. (Section 2, Regulations Regarding the State General Secondary Education Standard, Subject Standards and Sample Education programs, Cabinet Regulations No 281, 21.05.2013)</p>
Norway	<p>“The Act [Core curriculum] aims to develop competence, understanding and responsibility in relation to craft, profession and society; to provide a basis for further education and to assist apprentices in their personal development. Vocational training shall contribute to increased awareness and understanding of basic Christian and humanist values, our national cultural heritage, democratic ideals and scientific thought and method. Vocational training shall promote human equality and equal rights, intellectual freedom and tolerance, ecological understanding and international co-responsibility” (§ 1). (...)</p>

	<p>“Education shall not only transmit learning; it shall also provide learners with the ability to acquire and attain new knowledge” (Core Curriculum, p. 15)</p> <p>“Education should counteract prejudice and discrimination, and foster mutual respect and tolerance between groups with differing modes of life” (Core Curriculum, p. 10)</p> <p>“The foremost aim of education is evolution. Education shall meet children, adolescents and adults on their own terms and so lead them to the borderland where they can encounter the new by opening their minds and testing their skills” (Core Curriculum, p. 11).</p> <p>“The development of individual identity occurs through becoming familiar with inherited forms of conduct, norms of behavior and modes of expression. Hence education should elaborate and deepen the learners’ familiarity with national and local traditions - the domestic history and distinctive features that are our contribution to cultural diversity in the world” (Core Curriculum, p. 12)</p>
Poland	<p>“The aim of education in professions in VET is to prepare the learners to pursue a professional activity and to function actively in a changing labour market. A graduate of a school providing vocational training should have full professional qualifications, and be prepared to obtain the necessary of professional entitlements.” (Vocational Core Curriculum 2019)</p> <p>“General education in upper-secondary school forms a coherent whole and constitutes the foundation of education, enabling the acquisition of various professional qualifications, and then their improvement or modification, opening the process of lifelong learning. (...) (General Core Curriculum 2018)</p> <p>„Integrating and correlation of vocational and general education, including key competences gained in general education on lower stages of education plays a crucial role in the process of vocational training. An adequate level of general knowledge linked with professional knowledge will impact the vocational competences of graduates of vocational schools, allowing them to cope with the challenges of the changing labour market” (Vocational Core Curriculums 2012, 2019)</p>
Slovakia	<p>General educational aims of Slovak republic stated in the School Act (N. 245/2008) are: “to acquire competences in the field of communication skills, oral and written skills, the use of information and communication technologies, communication in the state language, mother tongue and foreign language, mathematical literacy, and competences in the field of technical sciences and technologies, for lifelong learning , social and civic competences, entrepreneurial skills and cultural competences (...) to learn to identify and analyse problems and propose their solutions and solve them (...) to develop manual skills, creative and artistic skills, develop knowledge and work with them in practical exercises in areas related to further education or current market requirements (...) to strengthen respect to parents and others, to the cultural and national values and traditions of the State of which he or she is a citizen, for the State language, for the mother tongue and for its own culture” (School Act N 245/2008, § 4)</p>

The focus of the analysis in the report is on at least one tier deeper than analysis of the strategic documents, that is on more detailed statements. Most of the statements found in the table above are as granular as the TKC’s most general descriptions. The

relevant documents used in analysed countries differ significantly, the broad categories of the documents which contain TKC's description are:

- standards and programme documents (such as core-curriculum, curricula, qualifications or educational standards);
- assessment and performance standards/requirements (e.g. verification criteria, performance standards);
- other guidelines and/or requirements for teachers.

The list of sources of examples of learning outcomes in the country reports is presented in Annex.

Early on during the analysis, we have decided that any attempt to establish adequacy in an international comparison between groups of documents based on their names would be a doubtful approach. In this context, it seems most appropriate to repeat what Brockmann, Clarke and Winch wrote about knowledge, skills and competences – their analysis revealed: “distinct understandings and meanings of outwardly similar terms” (2008). The variety of understandings and meanings, in our case, originate from different institutions, both formal and informal ones. The concepts of competence mentioned by Brockmann et al. (2008) are one of these institutions.

The formal institutions, described and available for analysis, may give a part of a picture at best. The documents of similar names are embedded in different settings, are used by different agents, often have a different purpose. For example, some curricula are the basis for internal and formative assessment, others also for external assessment, while some do not claim to be verifiable at all. Some assessment criteria are described at a threshold level other at an average level. These formal institutions regulating what is taught in schools and companies create a complex network of interrelations and interdependencies – usually, a hierarchy of documents refining learning goals from general to detailed, accompanied by transversal and specific documents of a different character (e.g. guidelines, didactic materials). The interviewees in most countries mentioned that this overflow of documents is increasingly burdensome for teachers and administration.

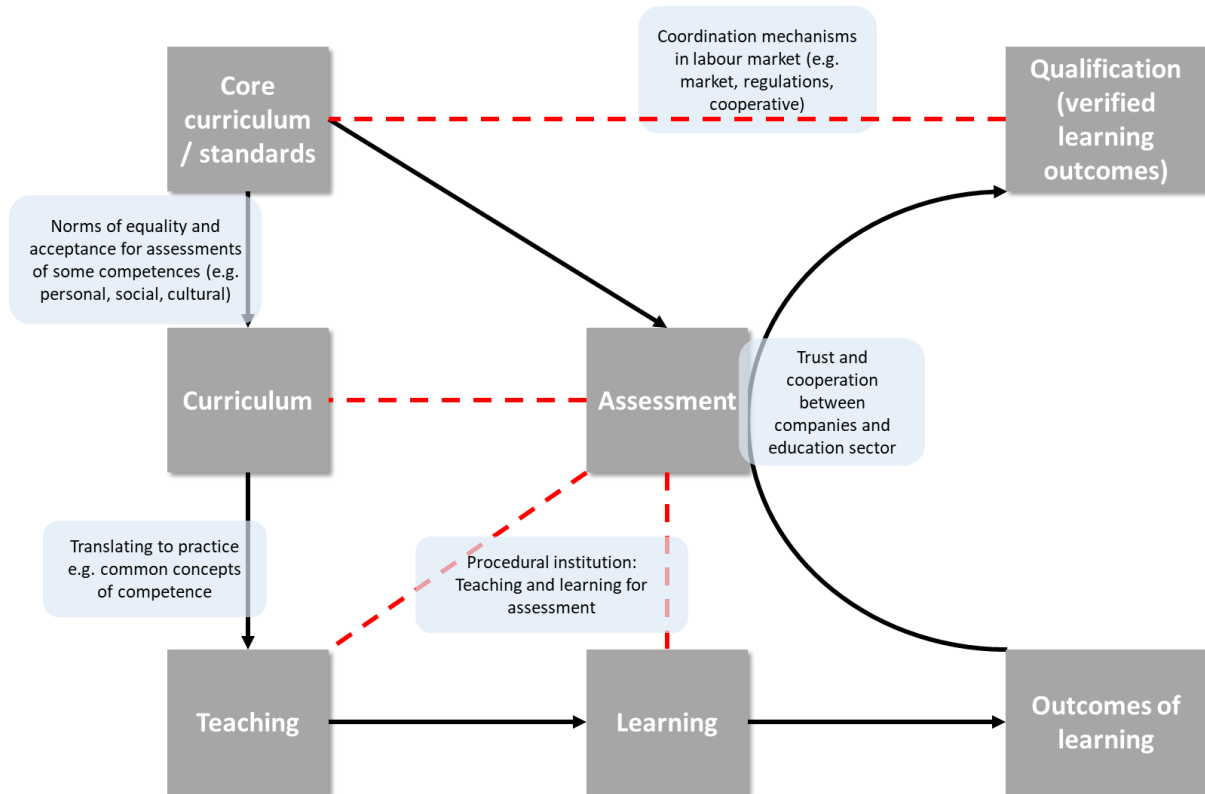
On the other hand, informal institutions² seem to be the crucial determinants of transversal key competences development. Informal institutions relate to normative, cognitive or procedural aspects affecting or regulating our behaviour. And these are of key relevance for the TKC's formulation, use and interpretation. The study has been built around the assumption that

informal institutions such as ‘acceptance for overusing transmissive teaching practices (e.g. lecture)’, ‘teaching for examinations’, ‘learning for tests’ or ‘shared concepts of competence’ strongly influence the learning outcomes achieved by students.

² Informal institutions can be defined as socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels. (Helmke & Levitsky, 2004)

This shows that outside the formal institutions linked to curriculum regulations there is another level of the relationship between the contents of curricula and the outcomes achieved guided by the role of assessment.

Figure 1. Schematic representation of the relations of formal and informal institutions relevant for developing learning outcomes and achieving qualifications.



Source: own work.

The red dotted line on the above graph signifies an informal relationship and or influence (blue boxes provide commentary and examples). Therefore looking at how the outcomes are described should give insight into the TKC's developed in two ways – it guides both the teaching and learning as well as the assessment requirements. The relation somehow mirrors what is also known as the constructive alignment of learning goals (intended outcomes) with teaching contents and assessment (Biggs, 2003; Biggs & Tang, 2007) – providing an overall coherence of the learning environment. However in the case of TKC's more often than not, we see lack of alignment: these competences are not well represented in curricula, not assessed and taught/ learned informally (according to our findings). The assessment of TKC's is discussed in detail in Chapter 4.

In all analysed countries TKC's descriptions are located in various places. The most common location of TKC's are subject requirements in the general core curriculum, separate unit/module and as a cross-curricular requirement to be embedded in different modes of learning in vocational core curricula (or another type of overarching standard for VET).

However, it is not at all uncommon that in one country more than one model is functioning. Usually, many different programmes of a different structure are available. In some countries, there are additional guidelines for developing TKC's, such as the Austrian "Teaching principles and educational concerns of the Ministry of Education" or the Latvian "Guidance for the elaboration of modular VET programmes". The programmes relating to EQF 3 and EQF 4 may also differ to higher VET programmes (e.g. EQF 5) in this regard.

Education is usually organized in general and vocational education strands – working together but with separately described requirements, organizationally distinct and with learning often taking place in different contexts (e.g. school and workplace; class and workshop). As a result, the transversal competences need to be included in both of those contexts – either doubled or contextualized. At the same time, the learning outcomes logic has not fully penetrated the educational documents and practice. The subject-based organization of education remains the cornerstone of most schools. The introduction of learning outcomes has led us to have subject contents described in terms of learning outcomes, but still, the subjects (and not some overarching general or key learning outcomes) are the organizing concepts of teaching, learning and assessment that can be seen in documents. In this regard, the VET strands of education, with historically applied concepts of competence and professional ethos differ significantly from general education – possibly employing the *genius loci* in developing TKC's.

The TKC's development is supported by teachers, who in general declare that developing the students' ability to learn and function in society is one of their main concerns, independently of how and where they are described in the documents. Very seldom would they use terms such as 'transversal competences' to refer to these. The indication of these competences in the documents supports these declarations, possibly empowering teachers in these priorities.

Interestingly in some cases (e.g. France, Slovakia, Poland) interviewees said that at the secondary education level, the requirements prescribed in curricula are often assuming a previous level of fundamental skills that learners do not have. The PISA results consistently show a relative deficit of VET learners in mathematics, science and reading. A correlation of the level of these fundamental competences and levels of TKC's achievement would not be surprising at all, since they might both be determined by socio-economic status of parents. However, the main point of this observation is to underscore the importance of teaching and learning following curricula at all length (not just the selected skills – in case of VET schools often specific skills assessed during final examinations at the expense of key competences and/or general knowledge).

Scope and formulation of learning outcomes related to TKC's

Unsurprisingly, we found learning outcomes linked to all TKC's distinguished in the Recommendation on Key Competences for Lifelong Learning in every country. This can be explained by several factors. It seems that some of these competences have always been present in the heart of education "gene pool", however, should probably be questioned if that is also the case for vocational sectors with industrial, often Fordist,

roots. Even at times of economisation of the discourse around education (and even more so in VET), the policy-makers and teachers remain committed to the societal role of education in VET. Another significant factor is the EU policy role, which promotes specific concepts and categories in recommendations and other acts (the EU policies are often being mentioned in accompanying documents to the legal acts).

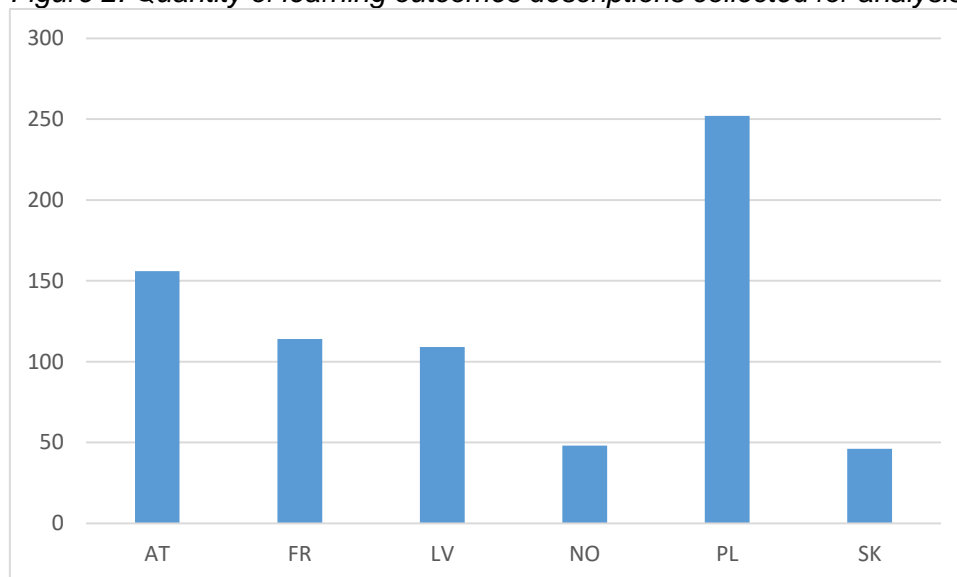
However, the questions of dynamics in this regard remain unanswered. Has each of the analysed countries put more stress on the issue of TKC's in the last 20 years? Has this focus been visible in policy narratives and/or in practice? Have external (i.e. social and economic) conditions favoured more or less development of these competences by students? The answers to these questions lay beyond the analytical context of the TRACKVET project, however, they are consequential.

The outcomes seen in curricula related to the broad categories distinguished in the Recommendation on Key Competences for Lifelong Learning in different manners. Using the descriptive categories developed in the project, we can see differences in interpretation between the documents and programmes, which have been the source of learning outcomes. The results are presented in the latter parts of the chapter, but they are in no way representative of the national approaches to TKC's development (as indicated before these approaches need to be seen in a much wider context than just the contents of curricula) nor are they any kind of proxy for the TKC's possessed by learners.

Data collection and limitations

We have created a corpus of learning outcomes related to TKC, based on project partners indications and materials. The number of learning outcomes collected for analysis is as follows:

Figure 2. Quantity of learning outcomes descriptions collected for analysis by country (N=740).



Source: own elaboration based on country reports.

The outcomes presented in country reports and attachments were taken into account. The methodology report was prepared to exclude (or limit) biased selection of the sample for analysis (Dębowski et al., 2018). In a few cases, additional outcomes from sources linked in the country reports were included in the analysis. The outcomes in the reports were provided mostly in English, however, these were often own translations. Because of the exploratory character of this study, we have decided to take into account all translations provided.

The sample collected is not representative of the approach to outcomes in any country, therefore we do not make statements about any country in a statistical sense. Yet the type of schools and/or programmes which were selected for the analysis were nationwide documents or programmes of specific interest (the higher VET programme selected for analysis in Austria).

The collected sample of learning outcomes descriptions was then annotated using the descriptive categories developed previously in the TRACK-VET methodology report – see excerpt below.

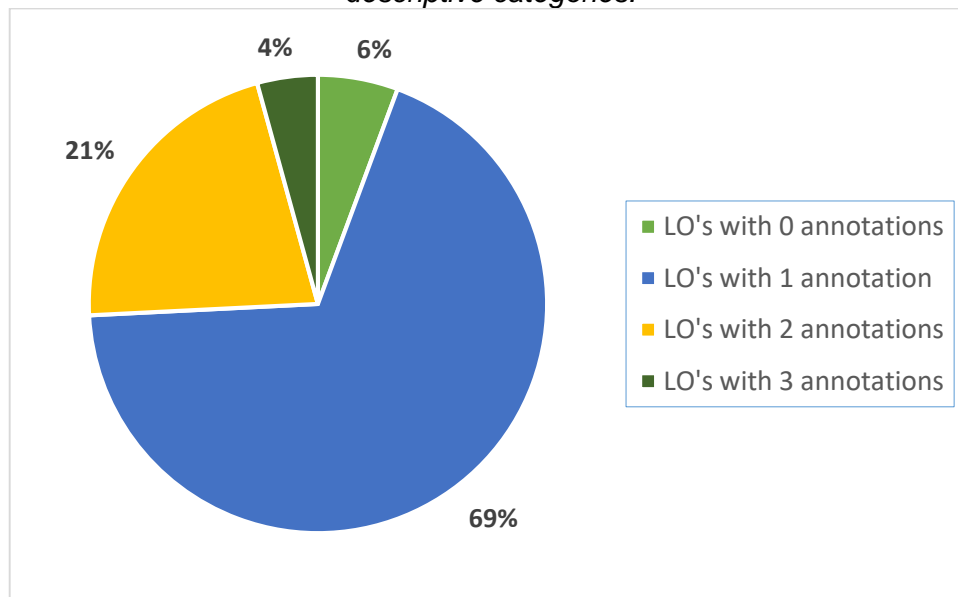
Figure 3. List of TKC's and descriptive categories used for annotation.

TRANSVERSAL KEY COMPETENCES	DESCRIPTIVE CATEGORIES
PERSONAL, SOCIAL COMPETENCES AND LEARNING COMPETENCE	Methods and strategies of learning
	Motivation and autonomy of learning
	Maintaining well-being
	Social and interpersonal relations
CIVIC COMPETENCES	Understanding of society
	Participation in public affairs
	Values and identity
ENTREPRENEURSHIP COMPETENCE	Taking action and making decisions
	Realization of initiatives
CULTURAL AWARENESS AND EXPRESSION COMPETENCE	Understanding and appreciation of culture
	Cultural expression
DESCRIPTIVE CATEGORIES RELATED TO MORE THAN ONE TRANSVERSAL KEY COMPETENCE	Critical thinking
	Problem-solving
	Media literacy
	Creativity and innovation

Source: (Dębowski et al., 2018, pp. 15–17; 47–51)

The learning outcomes descriptions collected were annotated (i.e. assigned a marker, a tag) related to at least one descriptive category, but no more than three. The logic of best-fit was used and sometimes even distant matches were marked (e.g. field related knowledge of business regulations could be matched with entrepreneurship competence). 40 objects of the sample were not annotated – either they were not related to TKC's (e.g. “fill out warehousing documentation”) or not described as learning outcomes (e.g. “Labour law.”).

Figure 4. The share of learning outcomes with regard to the number of annotations to TKC's descriptive categories.

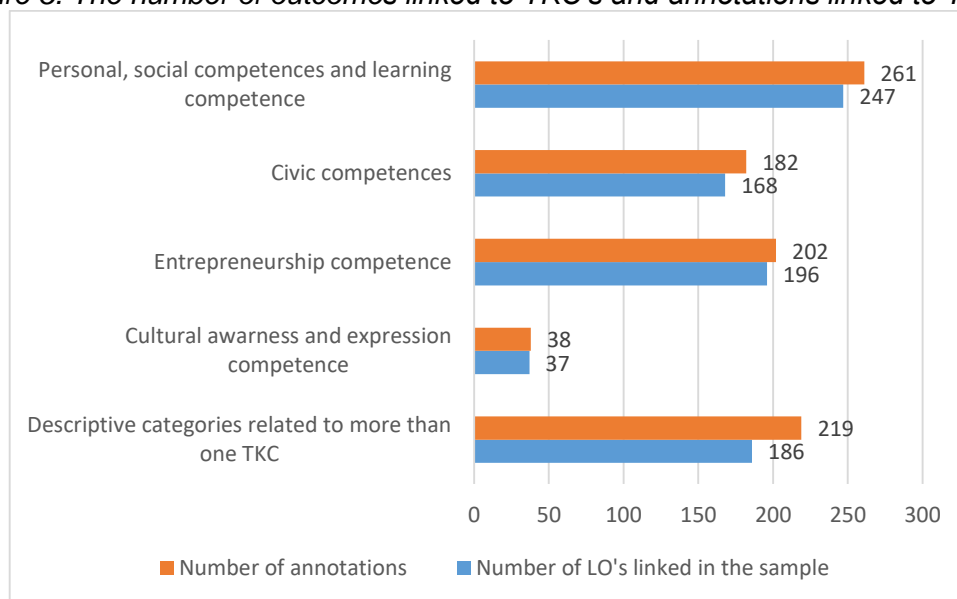


* Explanatory note: learning outcomes in the corpora could be annotated to more than one descriptive category. For example, the LO formulated as “I can reflect on my own behaviour in relation to the specific needs of other people” was annotated to the following descriptive categories: “Social and interpersonal relations”, “Critical thinking”, “Understanding and appreciation of culture”. The last annotation may seem doubtful at first, however it is grounded in the location and use of the outcome in a given document, where an overarching frame of “respect and acceptance” is linked with this outcome with the following description: “Respect and acceptance include (... the respectful treatment of other people regardless of status, culture or personal characteristics, (...) recognizing other opinions, attitudes and values, (...), the reflection of one's own behaviour when dealing with different value systems.”

Source: own work.

The descriptive categories developed for the research (i.e. the descriptive categories such as “Taking action and making decisions” and “Realization of initiatives” for the entrepreneurship competence) have proved to be useful. Outcomes linked to a given transversal key competence usually had only one annotation in that group. However in the light of little indication of learning competence in curricula one descriptive category relating to this aspect would have been sufficient.

Figure 5. The number of outcomes linked to TKC's and annotations linked to TKC's.



* The difference between the number of annotations and number of LO's linked to a given TKC comes from the double annotation – for example only one learning outcome was annotated to both descriptive categories in the TKC “Cultural awareness and expression competence”, hence there were 38 annotations and 37 LO's linked to this TKC.

Source: own work.

Representation of the TKC's in the sampled learning outcomes

The TKC's most often found in the sample are (in order of diminishing frequency):

- 1) Personal, social competence and learning competence
- 2) Descriptive categories related to more than one TKC
- 3) Entrepreneurship competence
- 4) Civic competence
- 5) Cultural awareness and expression

However, we find the most interesting results, when decomposing the findings to the descriptive categories. This is presented in *Figure 6*.

Figure 6. The number of learning outcomes linked to TKC's descriptive categories. Ranked from least represented to most represented in the sample.

DESCRIPTIVE CATEGORIES	Number of learning outcomes annotated in the sample
Cultural expression	8
Creativity and innovation	16
Participation in public affairs	20
Methods and strategies of learning	25
Understanding and appreciation of culture	30
Motivation and autonomy of learning	31
Values and identity	43
Maintaining well-being	49

Taking action and making decisions	56
Problem solving	59
Media literacy	63
Critical thinking	81
Understanding of society	120
Realization of initiatives	145
Social and interpersonal relations	156

Source: own work.

The learning outcomes linked to the following descriptive categories were least represented in the sample:

- Cultural expression
- Creativity and innovation
- Participation in public affairs
- Methods and strategies of learning
- Understanding and appreciation of culture
- Motivation and autonomy of learning

In their main part curricula are more likely to have little indication for developing these aspects of competences. However, based on the qualitative data gathered in the interviews different categories could be explained by different reasons:

- The realities of vocational school may give limited opportunities for developing cultural expression and participation in public affairs. The outcomes annotated to cultural expression were linked to foreign language expression, arts subjects in general parts of the curricula. The outcomes annotated to participation in public affairs were linked to knowing how to act and acting in the context of community and environment as well as to participation in public discussions.
- The learning competence and creativity as well as innovation category, present in the policy agenda and general aims, seems not to have been further elaborated in the detailed parts of curricula for unknown reasons. The outcomes annotated to creativity and innovation were quite diverse and amongst others linked to design, contributing ideas in teamwork, applying skills to new contexts or in many cases refer directly to the competence, e.g. “is open to change”, “use creative skills (...)”. The outcomes annotated to the two descriptive categories of the learning competence were often linked to career planning and new skills development, finding information, as well as direct references to learning, lifelong learning and learning of others.

The learning outcomes linked to understanding and appreciation of culture remain still relatively scarce used than cultural expression. The contexts of use of these outcomes are similar and possibly the cause for relatively little representation are the same. A significant part of annotated learning outcomes is from the cognitive domain because the category encompasses “understanding” of culture.

The fact that the learning competence is among the least represented in the sample is alarming. Learning is after all the ultimate competence or the meta-competence as Winterton and Le Deist put it (2005). The following questions arise in this context:

- Do VET students have autonomy of learning and are being supported or encouraged in developing methods, strategies and motivation for learning?
- Is the learning competence being transmitted informally and therefore does not need to be listed in the curriculum? Or is this a shortcoming of the education systems? (Do we learn how to learn enough? Is this skill developed efficiently?)
- Motivation and ability to learn depend strongly on the environment (e.g. support of family and peers) and factors external to the education system (e.g. health, nutrition, home-conditions) which tools are used to support learning competence development and learning itself?

The learning outcomes linked to the following descriptive categories were in the middle of the distribution in the represented in the sample (in ascending order):

- Values and identity
- Maintaining well-being
- Taking action and making decisions
- Media literacy
- Problem-solving
- Critical thinking

The learning outcomes linked to values and identity were most often used in the context of the environment, abiding by ethical codes, respecting values of the society and others.

The learning outcomes linked to maintaining well-being are fairly well represented because of the link to the ergonomics, health and safety in the workplace. Other key contexts visible in the learning outcomes were dealing with stress, maintaining physical fitness and work-life balance.

The learning outcomes linked to taking action and making decisions were most often used in relation to analysing facts (to make an informed decision), presenting initiative, starting a business (how to, planning etc.). These were often seen both in the general and vocational parts of the curricula.

The learning outcomes linked to media literacy were mostly used in the contexts of a critical approach to sources and use of media for communicating, however, the content creation aspect was not well represented. The latter is consistent with little representation of the creativity and innovation in the sample.

The learning outcomes linked to problem-solving were mostly used in the contexts of dealing with non-standard, unpredictable situations, conflict as well as using specific methods to the identification and solving of problems. Some of the examples in the sample were strictly linked to problem-solving in mathematics and information technology.

The learning outcomes linked to critical thinking were mostly used in the contexts of self-reflection, cross-examination and analysing or evaluating inputs (data) and outcomes. This competence was also frequently named for example in “develop critical thinking skills” or directly signalled by adding an adjective or adverb such as “critically (reflects)”, “critical (analysis)”, “logical (thinking)”.

The learning outcomes linked to the following descriptive categories were most represented in the sample (in ascending order):

- Understanding of society
- Realization of initiatives
- Social and interpersonal relations

The learning outcomes linked to the understanding of society were used in very diverse contexts, including those signalled in the methodology reports. In the sample, the aspects of understanding the aspects of society related to economy or company operations were quite often recalled e.g. “consumer rights”, operation of economic system etc. Over 60 of the annotations in this category come from “knowledge of society” subject in Polish curriculum and are from the cognitive domain, e.g. “Explains what the cultural pluralism of contemporary society consists of and where it comes from” or “Presents the philosophical origin of the concept of civil society (John Locke, Georg Hegel, Alexis de Tocqueville)”.

The learning outcomes linked to the realization of initiatives was used in the contexts consistent with the ones signalled in Annex 4 of the methodology report. Namely:

- understanding and using different approaches to planning and management of projects;
- working individually and collaboratively;
- mobilizing resources (people and things);
- the ability to plan, organise, manage, lead and delegate, analyse, communicate, de-brief, evaluate and record;
- sustain own involvement and activities of others;
- presenting the attitude of innovativeness, pro-activity, courage, agency and forward-looking.

The learning outcomes linked to social and interpersonal competences are most represented. This is consistent with their long-lasting presence in public agenda in all countries. The category includes teamwork and cooperation, leadership, communication, taking responsibility, empathy and respecting others as well as valuing diversity.

Models for describing transversal key competences

The following examples of what can be called conceptual models of approach to the description of competences related to TKC’s have been described below based on the country reports (Galli et al., 2019; Lachmayr & Proinger, 2019; Stęchły et al., 2019; Tomengová et al., 2019; Zeiberte et al., 2019).

These should be treated with reserve, as they show only some aspects of the observed reality and, as very fresh hypothetical constructs, require further inquiry. These are an attempt to grasp what is specific in each case and name it, with no ambition to propose models based on a common set of dimensions – rather explore and identify relevant dimensions. In the case of 3 proposed models, these dimensions can be distinguished as ‘conceptual’ and ‘structural’. In the former dimension, we concentrate on the defining, categorising and describing of transversal competence, in the latter we

concentrate on the structure of programmes and the way that TKC's are signalled to teachers and learners.

Importantly – they are in no way normative – the examples presented are a result of pattern observation, but we aim to make no claims about these solutions being successful (or unsuccessful). Some of the findings in country reports suggest that neither the conceptual nor structural approach have a simple 'translation' into pedagogical practice – meaning that the competence frameworks and standards are often treated with reserve, as somewhat superficial (being called: artificial, theoretical or bureaucratic inventions) and the units or modules are not structuring the learning or assessment as one might assume – rather serve as a menu for composing sets of graduate competence profiles (Nijhof et al., 2007). Yet all these models are in fact ways in which policymakers emphasise the relevance of TKC's.

Model 1. The strong conceptual point of reference – the example of BIST educational standards (*Bildungsstandards*) in Austria

Austrian educational standards coexist with other forms of describing TKC's, i.e. diverse approaches present in different curricula. However, they are presented here as a model solution, because of their overarching (even generic) character and strong political support that they have received. The example has been selected to show that a strongly stated conceptualization can be pursued and it has been selected over other examples (for example the Polish VET core-curriculum universal formulations) because it is refined, well documented and received a strong support of authorities.

The development of educational standards since 2004 can be understood as the initial impulse for making competences systematically visible within the education system. Formulated at an average level, not at a threshold standard, the Austrian educational standards do not claim to be verifiable but do claim to create transparency concerning the indispensable goals and results of the respective educational programme.

The Austrian educational standards (BIST) were defined for all educational programmes in the form of key learning outcomes which pupils should have acquired by their completion. Thus, they serve as standards that can be expected from graduates at transitions from one school type to another and from school to work.

In the field of VET, both general (for all types of schools) and occupation-specific (for certain types of schools) core competences and interdisciplinary (personal and social) core competences were defined in the form of "can-do statements" as learning outcomes. They are not process-oriented and do not specify any particular learning methods to be applied either. They rather serve as guidance for teachers (particularly for the design of teaching and the creation of exam assignments), learners and parents (Tritscher-Archan & Petanovitsch, 2016). However, to some extent, the curricula and learning materials refer directly to individual educational standards, so that the individual learning units can be related to the overall learning objectives/learning outcomes (transparency). Transversal key competences are integrated into the educational standards in the area of personal and social competences (e.g. lifelong learning, social participation, orientation on values). The area of entrepreneurial

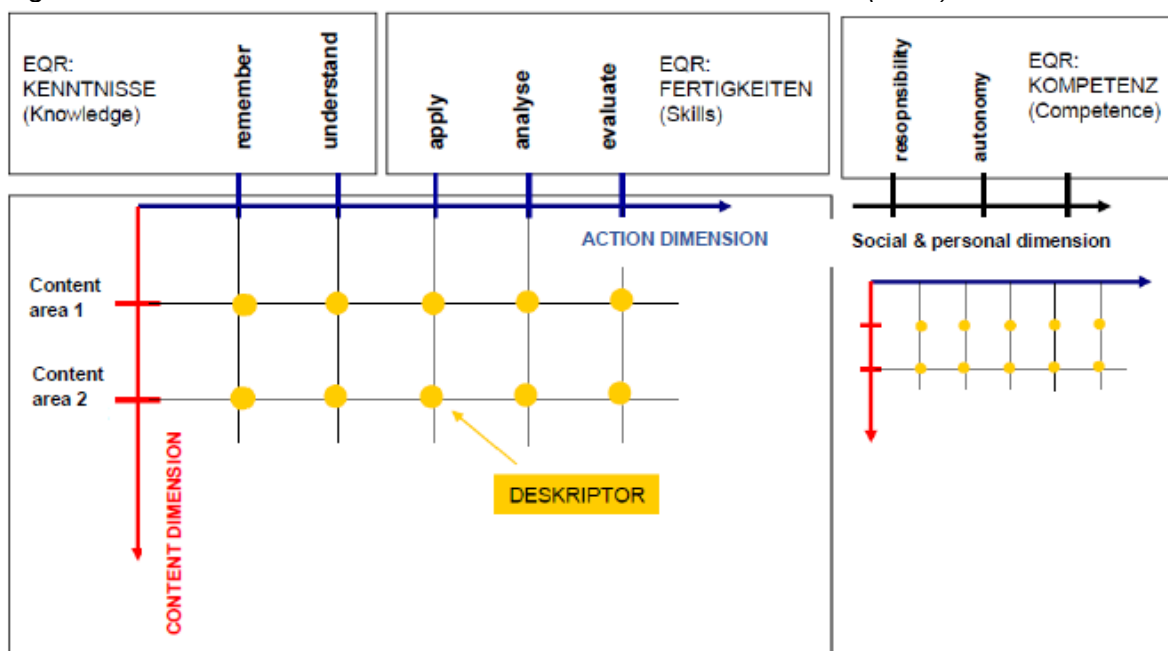
competence can be found in the cross-school educational standard “Entrepreneur examination” for secondary schools.

The main reasons for the development of BISTs were the international performance studies (in particular PISA) and their results, which in many cases were regarded as insufficient. The school system had traditionally been controlled or quality-assured almost exclusively by input specifications and process monitoring, a stronger reference to outcomes seemed an urgent requirement (Specht & Lucyshyn, 2008).

A distinction has been made between the competence models for cross-school (or interdisciplinary), school-specific and social/personal competences. The educational standards “consist of a competence model for the respective subjects or departments. These are illustrated by two dimensions - the action and content dimensions”.

The action dimension itself consists of several levels (knowledge: reproducing, understanding, skills: applying, analysing, developing) and should be an orientation to the European Qualifications Framework (EQF) or National Qualifications Framework (NQF). The dimension, which is described in the EQF sense as the assumption of responsibility and independence, appears in the BISTs detached from the dimensions of ‘knowledge’ and ‘skills’ (Lachmayr, 2016). The BISTs can be understood as a matrix: one axis represents the action dimensions with the five levels (from reproducing to developing), which involve an increasing complexity. The second axis shows the content dimension, where subject-related (cross-school-level) and job-related (school-specific) contents are presented in a freely chosen order. Each content was assigned to an action dimension by numerous school workgroups. This results in intersections of content and action dimensions, which are referred to as descriptors and described using lesson examples.

Figure 7. Schematic illustration of Austrian Educational Standards (BIST).



Source: (Fritz & Staudecker, 2010; translation: Lachmayr & Proinger, 2019, p. 31)

The competence in the social and personal dimensions are further conceptualized in the following descriptive categories:

Social dimension	Social responsibility	Respect and acceptance; Empathy; Willingness to help; Confidentiality; Social participation
	Communication	Conducting a conversation; Leadership; Communication levels and nonverbal communication; Written and media-supported communication
	Cooperation	Resource orientation; Role understanding; Consensus orientation; Result orientation
	Conflicts	Clarification of positions; Conflict management; Solution orientation
	Leadership	Assumption of responsibility and transfer of responsibility; Decision making; Motivation ability; Goal orientation
	Appropriate appearance	External appearance and manners; Role security
Personal dimension	Personal responsibility	Self-confidence and reflection; Independence and initiative ; Understanding of standards and value orientation; Self-control; Willingness to make decisions
	Learning and working behavior	Willingness and endurance; Care and reliability; Creativity; Planning and control of work and learning processes; Transfer and networked thinking
	Lifestyle	Lifelong learning

Source: based on "[Broschüre Bildungsstandards Soziale und Personale Kompetenzen 9.-13. Schulstufe. Bildungsstandards in der Berufsbildung. Kompetenzmodell, Deskriptoren und ausgewählte Methoden-/Unterrichtsbeispiele](#)" (p. 38-48)

For more examples and details see online information: social and personal competences can be found [here](#)³. Austrian partners in the project underlined the contexts of implementation of this model. It was based on thorough preparations, academic support and wide coordination and harmonization across all types of schools. Considerable effort was undertaken to provide basic "instructions", tools or agreements to translate the individual subject-specific elements of different school types and schools according to common "game rules". The model requires continuous support for the intensive maintenance and updating of lesson examples.

³

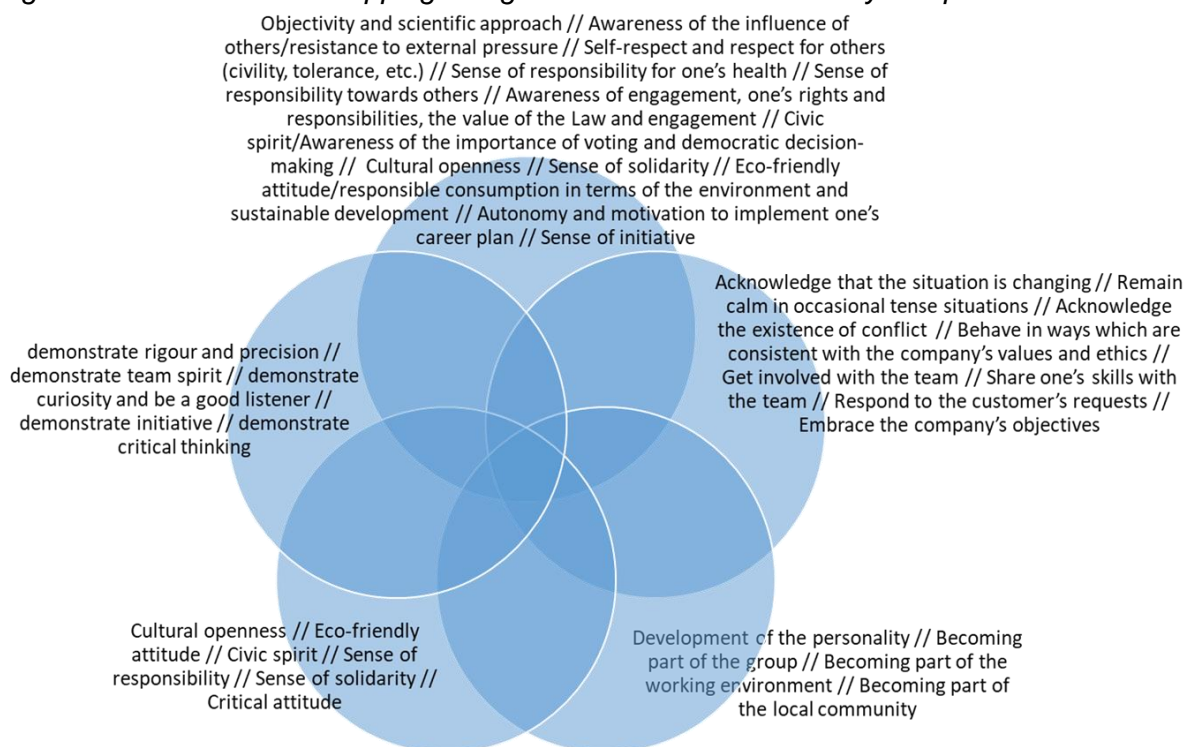
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Model 2. The multilateral network of categories – example of France

The French approach towards transversal key competences could be characterised by a richness of concepts and categorisations for the designates of TKC's. The existing standard frameworks overlap and perhaps even compete with each other. Although it seems that the key competences are strongly represented, they are not always clearly identifiable and do not necessarily appear under the same title. The diversity of categorisations is accompanied by “dilution” of key competences in professional contexts, with the notable exception of CléA qualifications (see: Galli et al., 2019, pp. 21–22). The coexistence of different categorisations and levels of description of transversal competences can be seen in all countries – however, the case of French system has been selected because of the diversity, difficulty to point a universal reference point and uncertainty about the relations between the categorisations.

The figure below presents selected divisions taken from the French country report (Galli et al., 2019).

Figure 8. Parallel and overlapping categorisations of transversal key competences in France.



* Categories on this graph do not exhaust the scope of diversity in the French system. The presented ones are: Preamble to the programme for French; Prévention Santé Environnement standards frameworks for the CAP and the Bac pro; Electrical and connected environments trades (MELEC) Bac pro; Chemical, Water, and Paper and cardboard processes (PCEPC) Bac pro.

Source: own work based on (Galli et al., 2019)

The case, although it may look like an absence of systemic approach at first, provides qualities which can be seen as fundamental in the light of the learning outcomes critique. First, by asserting no single conceptual perspective it decreases the risk of reducing these concepts in practice to meaningless labels – since these need to be reinterpreted each time. There is a certain phenomenological appeal in restraining from using highly abstract concepts to communicate these competences – as a result,

teachers need to construct their understanding of transversal competences and/or use several of them at the same time. Secondly, the respondents often agreed that the attitudes (as one of the dimensions of competence) are not objectifiable, hence cannot be assessed as such / separately from a related competence. Whether this results in redirecting the focus of learning to specific skills or in the flourishing of a holistic competence, remains an individual case. Finally, by allowing disciplinary and occupational variety (conceptual and actual), the transversal competence can be suited to a specific need – resulting in nuanced competence sets of learners competences:

Each (“disciplinary”) programme approaches them and expresses them in its own way. Although some of these courses mention one or other of these key competences (for example, civic competences in the case of moral and civic education or cultural expression in applied arts and culture), most of the time, they actually include several of them, linked or correlated with each other. When they are expressed, they appear under different titles, such as “skills”, “competences”, “attitudes” or “knowledge”.

The authors of the French country report provided observations of both positive and negative practices related to TKC’s formulation and development in France.

Model 3. TKC’s unitised – example of Poland, Latvia, Slovakia

In Latvia, Slovakia and Poland all IVET programmes include modules or units of learning outcomes linked to TKC’s. The recent curriculum reform has introduced a uniform programme structure for the whole IVET and similarly so for formal CVET. The modularisation/unitisation has served as a vehicle for ensuring that programmes include aspects deemed relevant by policymakers. We concentrate here on the case of Poland, with additional reference to Latvia and Slovakia.

The TKC’s presence is of course not limited to the modules or units of learning outcomes - these are well represented in the general core curriculum, the qualifications frameworks and also supplementary documents for teachers.

In the case of Latvia these modules titles are:

- Entrepreneurship,
- Public and Human Security,
- Languages,
- Cultural Awareness and Expression,
- Civic Competences and Digital Technologies.

In the case of Poland these units titles are⁴:

- Workplace health and safety,
- Starting and operating business activities,
- Foreign language ability related to the occupation,

⁴ (for the core curriculum in force 2012-2021)

- Personal and social competencies,
- Organising the work of small teams (in upper secondary technical schools and post-secondary non-tertiary schools).

In the case of Slovakia a TKC in VET programmes are included in the 3 groups of key competencies:

- Act independently in social working life;
- Use knowledge and ICT interactively,
- communicate in Slovak mother tongue and foreign language;
- Work in heterogeneous groups.

Depending on the nature of the programmes, the learning outcomes in the units and modules may be integrated into related general education subjects or vocational modules.

The modularisation and unitisation of curricula can be seen as an institutional response to the technical organisation of innovation (Mayer, 2003, pp. 25–27). In this sense, it is a reactive approach, aimed at appropriate choice from a set of predefined skills, which can be defined by functions. However, the inclusion of the transversal competences seems to be an effort to transgress the limitations of this structural legacy. The adaptation of VET systems to learning economy (or knowledge-based economy) in post-socialist countries began later and is conducted in a different institutional setting. It may not be a coincidence that these countries, which are sometimes characterised as dependent market economies or patchwork capitalisms (as opposed to coordinated market economies) (Busemeyer & Thelen, 2015; Nölke & Vliegenthart, 2009; Rapacki, 2019) – developed a model of training structurally closer to liberal market economies. In this case, the skills formation systems provide less of so-called holistic competences and more of specific competences. The absence of strong social partners and coordination tradition (Gardawski, 2009; Meardi, 2014), together with lower involvement of employers in the VET support such a hypothesis.

Examples of TKC's

This part of the report presents examples of descriptions of learning outcomes linked to selected descriptive categories. The intention is to show the diversity of granularity of the descriptions as well as how the different aspects of each transversal key competences are being described.

The learning outcomes that have been previously annotated to a descriptive category of TKC's have further been clustered, working titles of the clustered are given in brackets.

Personal, social competences and learning competence
<p>Examples from two descriptive categories: Methods and strategies of learning and Motivation and autonomy of learning</p>
<p>[Developing professional competences and qualifications – low granularity]</p> <ul style="list-style-type: none"> – Ability to assess the acquired knowledge and skills and continually improve own professional qualifications – Ability to pursue self-education and improvement of own professional competence. – Aware of: Regular self-education in improving own professional qualifications – Describes the strengths of his personality and analyses the availability of the labour market in relation to own competences and professional plans – Find, analyse and apply information about state of art technology in the sector, continually improve own professional competence
<p>[Developing professional competences and qualifications – high granularity]</p> <ul style="list-style-type: none"> – Excels (improves) professional skills: 1) obtain professional information on industry from various sources; 2) defines the scope of skills and competences necessary to practice the profession; 3) analyses his/her own competences; 4) sets his/hers own goals and plans a path of professional development; 5) indicates opportunities for raising professional, personal and social competences – Choose suitable educational offers – Explain his/her own life plans, interests and resolutions, – Reflect on my educational planning – Identify training needs – See essential work and learning steps – Use digital tools to collect information on numerous professions and discuss opportunities and challenges in the labour market today
<p>[Understanding learning]</p> <ul style="list-style-type: none"> – Analyses the relationship between proper sleep and the functioning of the body, in particular the impact on learning and memory processes and body immunity – Discusses various forms of learning and assesses their biological significance (perceptive learning, instilling, habituation, trial and error learning, insight learning, imitation learning, motor learning)

[Motivation for learning]

- Autonomy and motivation to implement one’s career plan
- Explain ways to promote motivation
- Positively motivate himself/ herself and others
- Take motivational measures.

[Controlling own learning]

- Optimise the learning environment (from theory to professional practice)
- Guiding and overseeing work and learning contexts, including those that are not predictable
- Control my own work and learning processes
- Developing talents and interests through participation in various forms of intellectual and creative activity

[Lifelong learning]

- Implement lifelong learning as an integral part of life and career planning
- Developing habits of systematic learning, ordering acquired knowledge and its deepening, and the synthesis of the material learned
- Developing the habit of independent, systematic reading
- Explain the importance of lifelong learning for my personal and professional development.
- Learning to learn throughout life

[Learning of others]

- Set goals for myself and can pursue them or goals set by others consequently.
- Support others to expand their resources and skills.
- Train the company’s staff

Personal, social competences and learning competence

Descriptive category: Maintaining well-being

[Stress]

- Chooses ways to reduce excessive stress and deal with it constructively
- Describes the chemical aspects of stress
- Explains the role of hormones in response to stress
- Determines the factors that affect the body's homeostasis disorder (stress, harmful substances, including drugs, drug and certain drug abuse, biological pathogens)
- Uses stress coping techniques: 1) recognizes the sources of stress while performing professional tasks; 2) choose stress management techniques appropriate to the situation; 3) indicates the most common causes of stressful situations at work; 4) presents various forms of assertive behavior as ways of coping with stress; 5) distinguishes between conflict resolution techniques related to the performance of professional tasks; 6) determine the effects of stress

[Health and safety in the workplace]

- Able to: fulfil the requirements of occupational safety and fire safety regulations, apply proper, ergonomic methods of work that do not present health risks
- Adopt suitable behaviour and react appropriately so as to avoid risks
- Aware of: effect of workplace environment risk factors on health, environmental and fire safety, and electricity related risks
- Aware of: impact of safe work methods on personal safety and safety of other individuals
- Perform office and administrative work in an ergonomically correct fashion

[Physical well-being, health]

- Discusses the health benefits of undertaking various forms of physical activity in subsequent periods of human life
- Explains the relationship between physical activity and nutrition and health and well-being, and discusses how to maintain adequate body weight throughout all life periods
- Explains what is self-examination and self-monitoring of health, and why you should undergo preventive examinations throughout your life
- Performs shaping and compensating exercises to counteract the negative effects of health on work, including sitting and using the computer
- Explains the relationship between health and the environment, and what it can do to create a health-friendly environment

[Responsibility and valuing well-being]

- Sense of responsibility for one's health
- Gives examples of activities that are an expression of concern for one's own health and life
- Explains why health is a value for man and a resource for society, and what care for health in youth and early adulthood consists in
- Reflect on the value of having employment and what characterises a good working environment and make use of environment friendly materials

[Emotions and relations]

- Discusses the importance for health of good relationships with other people, including parents and peers of the same and opposite sex
- Is able to communicate his feelings and build proper family relationships
- Notes and appreciates the formative role of the family: in the transfer of knowledge (about life, man, the world, interpersonal relations), shaping attitudes, practicing skills, creating hierarchy of values, teaching norms and behaviors compatible with them
- Understands how interpersonal relationships are built, explains their importance in socio-emotional development; can present the essence of: camaraderie and friendship, youth crush, first fascinations, falling in love, love; draws attention to the need and value of mutual respect, assistance, empathy and cooperation

[Other]

- Gives examples of the impact of computer science and computer technology on the most important areas of personal and professional life; uses selected

e-services; presents the impact of technology on social well-being and social communication

- Reflects on the problem of the impact of consumerism, workaholism and economic pressure associated with maximizing profits on human health and life and his family ties
- Presents the negative impact on human health of some psychoactive substances (tobacco, alcohol), drugs and doping agents as well as abuse of caffeine and some drugs (especially those affecting the psyche)
- Plans a project on selected health issues and indicates ways of attracting project allies and co-participants at school, home or in the local community

Personal, social competences and learning competence

Descriptive category: Social and interpersonal relations

[Communication]

- Ability to communicate with the professionals involved in work procedures
- Applies the principles of interpersonal communication: 1) identifies verbal and non-verbal signals; 2) uses active methods of listening; 3) conducts discussions; 4) provides feedback
- Communicate appropriately at the factual and relationship levels
- Communicates using information and communication technologies with members of the group cooperating on the project
- Compose messages to suit the receiver
- Coordinate my communication behaviour with my communication partner
- Understands the principles of verbal and non-verbal communication and its importance in interpersonal relations; accepts responsibility for manifested reactions, spoken and written words
- Describe what a communication content says on the relationship or factual level.
- Prepare a conversation in a structured way
- Moderate a conversation
- Hold a conversation
- Influence people (talk to, persuade)

[Cooperation]

- He/she works in a team: 1) works in a team, being responsible for tasks carried out jointly; 2) observes the division of roles, tasks and responsibilities in the team; 3) is involved in the implementation of joint activities of the team; 4) modifies the manner of behavior, taking into account the position developed jointly with other team members
- Ability to collaborate with supervisor and organize his/her own work and the work of his/her supervised staff in a target-oriented way
- Communicate and collaborate with colleagues, users of computer technology and related professionals, hear them out and give a reasoned opinion
- Accept feedback
- Aware of: the role of teamwork in accomplishing a task, responsibility of each participant
- Cooperate to solve problems with other people

- Cooperation: coordinate one's own actions with those of other people in pursuit of a shared team goal
- Demonstrate team spirit

[Cooperation – leadership]

- Influence the way employees achieve their goals.
- Lead a team
- Build and organize a balanced and sustainable cooperation,
- Lead and supervise staff
- Show empathy, goal orientation and motivation in leadership skills
- Support others to expand their resources and skills.
- Create a climate conducive to conversation, foster dialogue, encourage people to express themselves, secure the cooperation of the family and companions
- Ability to supervise his/her staff of electricians and maintain a safe workplace.

[Responsibility and autonomy]

- Act independently and accept responsibility for myself, for other people and for resources
- Act in accordance with norms and rules and my own values
- Act socially responsible, which is shown in respect, authenticity and responsibility
- Clearly state my own point of view
- Assess the consequences of my own actions upon myself and others
- Develop personal expression, argumentation and critical thinking skills
- Explain his/her own life plans, interests and resolutions
- Identify direct and indirect consequences of his/her own activity
- Is responsible for the actions taken: 1) provides for the effects of actions taken, including legal effects; 2) shows awareness of responsibility for the work performed; 3) assess the actions taken; 4) provides for the consequences of improper performance of professional activities at the workplace, including the use of hazardous substances, and improper operation of machinery and equipment at the workplace
- Review and develop your own performance and the performance of others
- Takes responsibility for undertaking activities
- Differentiate between one's own point of view and that of one's superiors
- Sense of responsibility towards others, and towards the environment
- Justify his/her own arguments, solutions, needs, rights, duties and conduct

[Social roles]

- Adapt my behaviour to my respective social role
- Adapt my external appearance to the respective social and cultural context
- Adequately behave in economic, operational and social situations and act in a targeted way
- Adopt a professional attitude
- Appear in the external appearance and role security and role awareness in line with the situation
- Behave in a manner that is appropriate to the situation and person

- Characterizes his social roles and typical behaviours
- Deal with new social roles and situations openly and confidently
- Explain the tasks and functions in a group
- Take on tasks and areas of responsibility according to my role

[Relation to others]

- Awareness of the influence of others/resistance to external pressure
- Be respectful and considerate when dealing with other people
- Come to clear agreements
- Consider other people's points of view
- Consider the points of view of one's superiors
- Constructively deal with my own and other people's interests and needs
- Contribute to the development of friendly interpersonal relations, avoid personal conflicts, prejudices and stereotyping others
- Understands how interpersonal relationships are built, explains their importance in socio-emotional development; can present the essence of: camaraderie and friendship, youth crush, first fascinations, falling in love, love; draws attention to the need and value of mutual respect, assistance, empathy and cooperation

[Relation to others - conflict resolution]

- Deal with sensitivities in the group
- Describe the causes, triggers and content of conflicts
- Develop a solution together with the conflict partners
- Handle conflicts in a solution-oriented and self-controlled manner
- Reflect on the conflict behaviour of everyone involved
- Remain calm in occasional tense situations
- Respect others' points of view
- Take steps to de-escalate
- Try to reach a consensus with colleagues and one's superiors
- See signs of an emerging conflict

[Professional roles and situations]

- Know one's role in the business and in the work team
- Maintain a good working climate with colleagues
- Maintain the appropriate distance from the customer
- Make sure customers are comfortable
- Create a welcoming atmosphere
- Strengthening the attitude of respect for other people's intellectual property
- Submit his/her own proposals to improve work, to consider the proposals of others without bias
- Take into account the values and expectations of the customer
- Take into account the values of the business
- Taking advantage of opportunities arising on the market, taking initiative, ingenuity and the ability to overcome internal and external barriers
- Make successful communication with the customer and users a priority

[Empathy]

- Express his/her own feelings and correct negativity
- Is able to communicate his feelings and build proper family relationships
- Offer adequate support to other people
- Put oneself in someone else's position
- Self-respect and respect for others (civility, tolerance, etc.)
- Sense of responsibility towards others
- Reflect on my attitudes, attitudes, feelings, values and needs
- Respond adequately to the needs of others
- Show empathy and self-reflection

Civic competences

Descriptive category: Understanding of society

[Society]

- Characterizes contemporary society and analyzes its features (open, post-industrial, consumer, mass and information);
- Characterizes historical forms of the organization of society (primary, traditional, industrial, post-industrial);
- Compare formal and informal rules, regularities, regulations, social standards, moral principles, is/her own and community expectations in the system in which he/she exists,
- Considers treating punishment as a retribution, social rehabilitation and social impact;
- Define key concepts associated with socialisation and apply these to examine features of socialisation of young people in (...)
- Describes the class-layer structure of (...) society and its local community;
- Discuss and elaborate on consumer rights and discuss consumer ethical responsibilities
- Discuss and elaborate on the value of gender equality and the consequences of a labour market segregated by gender
- Discuss the main principles of the (...) welfare state and the challenges this system faces
- Discusses the features of modern Western society (open, post-industrial, consumer, mass, information);
- Explains how social capital is created and how important for civil society (trust, cooperation networks and effective standards system);
- Explains what the cultural pluralism of contemporary society consists of and where it comes from; analyzes the consequences of this phenomenon;
- Explore local, national or global problems of current interest and discuss and elaborate on the different recommendations for solutions, orally and in writing, with precise use of social science terminology
- Formulate a problem from current social science issues and write a discursive text using terminology, varied sources and referencing to sources
- Identify the impact of waste production on the environment.
- Knowledge: The organisation of national defence and the issues involved.
- Presents - using the results of public opinion polls - a catalogue of values affirmed in (...) society and analyzes it;

- Presents the philosophical origin of the concept of civil society (John Locke, Georg Hegel, Alexis de Tocqueville);
- Presents the role of school and informal education in contemporary information society;
- Recognizes the life problems of young people in Polish society and formulates judgments on these matters.
- Reflects on the problem of the impact of consumerism, workaholism and economic pressure associated with maximizing profits on human health and life and his family ties.

[Democracy and politics]

- Analyse basic differences between the political parties in (...)
- Analyses - using the results of opinion polls - the attitudes of (...) society towards public institutions and politicians
- Awareness of engagement, one's rights and responsibilities, the value of the Law and engagement
- Compares fascism with nazism, taking into account the organization of the state, ideology and policy towards society
- Define the concept of power and provide examples of how power is practised in the world
- Develop a spirit of citizenship: Be sensitive to other people's needs and become part of the community
- Discuss how power and influence vary due to ethnicity and socio-economic conditions
- Discuss the relationship between systems of government, a state governed by law and human rights
- Elaborate on the type of government and the most important political bodies in (...) and discuss and elaborate on a pluralist democracy in relation to indigenous peoples and minorities
- Explains the relationship between political parties and society; considers, on selected examples, the phenomenon of the crisis of political parties and the relevance of the category of "politics without ideology"
- Explains what the political culture of society is; characterizes its types in a classic approach
- Give an account of the various challenges faced by democracy, including issues of representation for indigenous peoples and minorities
- Gives formal conditions to be met by a citizen to participate in elections;
- Position oneself as an informed consumer, a stakeholder in community development and a proactive force

[Globalization and economics]

- Analyse and evaluate objectives and conflicts of objectives in economic policy
- Assess and interpret the chances and risks of entrepreneurial independence.
- Assess and reflect the importance of innovation for economic and social development
- Define the concept of globalisation and assess various consequences of globalisation
- Discuss the concepts economic growth, standard of living, quality of life and sustainable development and the relationship between these

- Distinguish supply-oriented and demand-oriented economic policy and match different measures as well as reflect them
- Elaborate on key features of (...) economic policy
- Explain the features of the (...) economic system and reflect its characteristics.
- Give an account of employee and employer organizations and their place in working life and explain the factors that influence wages and working conditions
- Know about the importance of international business and can evaluate the chances and risks of globalisation
- Know about the interactions of economy and ecology and can evaluate economic effects

[Laws and regulations]

- Analyse the extent of different forms of criminality and assault, discuss and elaborate on ways to prevent such behaviour, and explain how a modern state governed by law functions
- Know the legal framework of the economy and can gather legal information situationally
- Knowledge: Ethical questions posed by individual and collective use of digital technology. Some legal principles which regulate this use
- Observe the requirements of labour law
- Understand and observe regulatory requirements on environment protection and perform worktasks without harming the environment

[European Union]

- Elaborate on the EU's aims and governing bodies and discuss (...) relationship to the EU
- Knowledge: Citizenship and nationality: comparison of different democratic regimes
- Knowledge: The notion of European citizenship
- Presents - using the results of opinion polls - the commonality and diversity of values affirmed in European societies
- Presents and compares various models of policy towards immigrants (unification / assimilation, integration, multiculturalism) in European countries
- Shows the cultural and historical foundations of European unity

[Development, human rights]

- Discuss the characteristics and causes of terrorism
- Find examples of different types of conflicts and human rights violations and discuss and elaborate on what the United Nations and other international operators can do
- Give an account of the different explanations for why the gap between poor and rich counties exists and discuss measures to reduce poverty around the world
- Knowledge: Engagement: the notion of militancy; the major forms of political, trade union and voluntary engagement

[Ethnicity and nationality]

- Presents - using the results of public opinion polls - the attitudes of (...) society towards national and ethnic minorities and towards other nations (including immigrants)
- Presents elements of the cultural heritage of an ethnic minority group in (...) (national and ethnic minorities, a group using a regional language, immigrants)
- Presents the multi-layered national identity on the example of European societies (Kingdom of Belgium, Kingdom of Spain, the Swiss Confederation and the United Kingdom of Great Britain and Northern Ireland)
- Presents the socio-cultural specificity of selected indigenous groups (e.g. On the American continent, in the Australian Union or the Asian part of the Russian Federation) and various policy models for these groups
- Presents various concepts of the nation (political and ethnic-cultural); characterizes nation-forming factors and favourable for maintaining national identity

[Intolerance]

- Explains how divisions are created in the group and in society (for example, "on their" and "strangers") and gives possible ways to counteract the manifestations of intolerance
- He/she discusses the biological and social background of various forms of intolerance and presents suggestions on how to counteract it
- He/she justifies the need to prevent racial discrimination, xenophobia and other forms of intolerance in the world and presents examples of the impact of exclusion of population groups on the social and economic life of countries
- Recognizes racism, chauvinism, anti-Semitism and xenophobia; justifies the need to oppose them and presents opportunities to engage in selected equality and tolerance activities
- Recognizes the manifestations of xenophobia and justifies the need to oppose this phenomenon

Civic competences

Descriptive category: Participation in public affairs

[Acts of participation]

- Act socially responsible, which is shown in respect, authenticity and responsibility
- Communicates in matters of social life, including public life, and discusses and presents own arguments in selected matters of this type
- Get involved in an individual or collective action plan related to sustainable development, working life, society: identify the project's challenges; identify the issues involved; know one's own role in a project; propose actions; prioritise actions; present the project
- Help to protect the environment and save energy
- Participate in shaping areas of society

[Acts of participation - debating]

- Participates in forum discussions
- Participates in online discussions (internet forum, chat)

- Takes part in a class, school or internet debate on freedom of expression or other rights and freedoms

[Attitudes and awareness for participation]

- Civic spirit / awareness of the importance of voting and democratic decision-making cultural openness
- Develop a spirit of citizenship: be sensitive to other people's needs and become part of the community
- Respect the rules of community life

[Knowledge for participation, the cognitive domain]

- Compare his/her own and community expectations in the system in which he/she exists
- Describe collective and individual measures for protecting the environment
- Describe ways in which I can help shape social areas of life
- Explore and discuss how one can participate in and influence the political system through different means and channels
- Presents arguments for participation in local, national and European elections

Civic competences

Descriptive category: Values and identity

[Following ethical codes]

- Abide by the principles of professional ethics, professional communication and observe the standards of labour law
- Principles of professional ethics
- Abide by the principles of professional ethics and ethical behaviour in general
- Ability to understand the requirements of environment protection legislation and perform worktasks without harming the environment
- Embrace the company's objectives
- Respect the rules of community life
- Adheres to the principles of personal culture and professional ethics: 1) applies the principles of personal culture and generally accepted norms of behavior in a work environment; 2) accepts responsibility for entrusted professional information; 3) explains what is ethical behavior in the profession; 4) indicates examples of ethical behavior in the profession

[Understanding values]

- Identify and explain ethical values and the civic principles involved
- Find examples of different types of conflicts and human rights violations and discuss and elaborate on what the united nations and other international operators can do
- Knowledge: ethical questions posed by individual and collective use of digital technology. Some legal principles which regulate this use
- Think critically and ethically: employ a critical and ethical approach so as to put different visions of the world into perspective and be respectful in one's values and personality
- Describe human rights, duties, interests, limitations and needs

- Compare common rules, regularities, regulations, social standards, moral principles
- Logically and realistically justify his/her own views, procedures and decisions
- Compare formal and informal rules, regularities, regulations, social standards, moral principles, is/her own and community expectations in the system in which he/she exists
- Distinguishes tolerance from acceptance; explains how divisions in society are created between "theirs" and "strangers"; recognizes the causes, manifestations and effects of intolerance and stigmatization, and presents possible ways to oppose these phenomena

[Civic attitude]

- Develop a spirit of citizenship: be sensitive to other people's needs and become part of the community
- Civic-minded attitude

[Environmental values]

- Sense of responsibility towards others, and towards the environment
- Help to protect the environment and save energy
- Eco-friendly attitude/responsible consumption in terms of the environment and sustainable development

[Family, nation, community]

- Notes and appreciates the formative role of the family: in the transfer of knowledge (about life, man, the world, interpersonal relations), shaping attitudes, practicing skills, creating hierarchy of values, teaching norms and behaviors compatible with them
- Recognizes national values related to their own cultural heritage, e.g. homeland, small homeland, community, nation, society, citizenship
- Sense of solidarity

[Customer, company, employment]

- Handle the information entrusted to me appropriately
- Discuss and elaborate on consumer rights and discuss consumer ethical responsibilities
- Discuss ethical problems related to the workplace and employment
- Work in line with current company rules and ethical norms, and regulations for environment, health and safety
- Behave in ways which are consistent with the company's values and ethics
- Ensures professional secrecy

[Differing values – the self and others]

- Respect other people and their attitudes and behaviors regardless of my own opinion
- Respect others' points of view
- Represent my own position
- Reflect on my attitudes, attitudes, feelings, values and needs
- Act in accordance with norms and rules and my own values
- Coordinate compliant behavior and my own needs

- Self-respect and respect for others (civility, tolerance, etc.)

Entrepreneurship competence

Descriptive category: Taking action and making decisions

[General entrepreneurship and initiative]

- Demonstrate initiative
- Describe entrepreneurial spirit
- Presents the characteristics and skills of an entrepreneurial man; takes part in social projects that allow them to develop
- Sense of initiative
- Take the initiative and be proactive
- Think and act entrepreneurially

[Managing and leadership]

- Achieve individual objectives as part of a single action or a project
- Control, reflect and create situations with your own initiative
- Find / choose the necessary strategies to perform management tasks in unpredictable situations
- Lead the business
- Represent own position
- Review and develop your own performance and the performance of others
- Show empathy, goal orientation and motivation in leadership skills
- Take the necessary steps to achieve my goals

[Specific attitudes and traits linked to entrepreneurship]

- Recognizes assertive, submissive and aggressive behavior; relates them to the characteristics of an entrepreneurial person
- Recognizes the strengths and weaknesses of his personality; relates them to the characteristics of an entrepreneurial person
- Recognizes the importance of entrepreneurship, including innovation and creativity in personal life and socio-economic development on a local, regional, national and global scale
- Demonstrates creativity and openness to changes: 1) describes methods and ways of solving problems; 2) takes the initiative in an unusual situation; 3) evaluate various options for action; 4) uses methods and ways to solve problems

[Decision-making]

- Check if own decisions are implemented accordingly
- Choose the right decision and goal from various options
- Makes decisions based on the information I need
- Makes decisions responsibly
- Makes finance decisions and can argue them conclusively
- Makes investment decisions and can argue them conclusively
- Makes strategic and operational decisions based on available information and argue them
- Makes rational decisions based on information available and assesses the effects of own actions

[Strategic and business analysis]

- Act according to my strengths and resources
- Analyses the micro and macro environment of the enterprise, identifies strengths and weaknesses as well as opportunities and threats of the project being planned, choosing its location
- Develop a business idea and evaluate its feasibility
- Evaluate the opportunities for and challenges to establishing a company and illustrate some of the main features of the profit and loss accounts and balance sheet
- Inspired by the experience of own and well-known entrepreneurs and based on collected information from the market, he finds an idea for his own business or social enterprise, assessing it in terms of innovation
- Set the priorities of the objectives
- Taking advantage of opportunities arising on the market, taking initiative, ingenuity and the ability to overcome internal and external barriers

[Business and company]

- Characterizes the basic organizational and legal forms of enterprises (individual business, civil law partnership, commercial law companies) and social entrepreneurship (including labor cooperative, social cooperative, association, foundation) and, taking into account the legal and property liability of owners, selects the form for the proposed enterprise or enterprise
- Characterizes the main marketing instruments, understands their role in the functioning of the enterprise and uses their knowledge in this area to design marketing activities in the planned enterprise or undertaking
- Designing activities in the scope of setting up your own enterprise or undertaking other socio-economic undertakings
- Embody the values of the company
- Explains the principles of enterprise functioning and draws up a simple business plan; characterizes the mechanisms of functioning of the economy and market institutions and the role of the state in the economy; analyzes current changes and trends in the world and (...) economy; distinguishes and compares investment forms and the resulting risk
- Interest in running your own business and motivation to continuous self-development and investing in yourself
- Plans and performs marketing activities related to the elaborate business activities
- Prepares in the form of a business plan a project of his own enterprise or other socio-economic undertaking and presents it in writing or in the form of a presentation;
- Take into account the values and expectations of the customer
- Take into account the values of the business

[Understanding work/labour]

- Discuss and elaborate on the value of gender equality and the consequences of a labour market segregated by gender

- Explains ethical principles in business and employee-employer relations, is able to assess ethical behaviour
- Reflect on the value of having employment and what characterises a good working environment

[student entrepreneurship]

- Prepares a budget for a specific project from the student, class or school life; considers expenses and sources of financing
- Selects the form of student undertaking

[business know-how – beauty salon]

- Apply the law on establishing a beauty salon: 1) apply the provisions on the protection of personal data; 2) characterizes the types of taxes and the methods of their settlement; 3) discusses the forms of insurance for the activities of a beauty salon
- Prepares the documentation necessary to run and run a beauty salon: 1) plans the organizational and legal form of the beauty parlor; 2) prepares the application to register the beauty salon; 3) performs a cost and revenue analysis of the beauty salon; 4) draw up a business plan for a beauty salon; 5) prepares letters related to running a beauty salon
- Plans and undertakes marketing activities to run a beauty salon: 1) draws up a marketing plan; 2) uses various forms of advertising; 3) defines ways to optimize the costs and revenues of a beauty salon

Entrepreneurship competence

Descriptive category: Realization of initiatives

[Coordination and management]

- Analyse workplace and worktasks independently
- Collaborate with supervisor and organize his/her own work and the work of his/her supervised staff in a target-oriented way
- Communicate with the professionals involved in work procedures
- Set own time-line for worktask performance
- Supervise his/her staff of electricians and maintain a safe workplace
- Adopt a professional attitude
- Develop a number of managerial objectives
- Find / choose the necessary strategies to perform management tasks in unpredictable situations
- Guiding and overseeing work and learning contexts, including those that are not predictable
- Know the characteristics of different management styles and can evaluate their strengths and weaknesses
- Lead a team
- Lead and supervise staff
- Set up and manage workspaces
- Take on management tasks in a clearly structured area
- Take on management tasks in an area with unforeseeable requirements

[Planning work]

- Defines the stages of the project and divides them into partial tasks
- Manage resources to help manage a situation effectively
- Plan and organise managerial procedures
- Plans to perform the task: 1) discusses activities carried out as part of working time; 2) determines the time of task completion; 3) performs tasks within the prescribed time; 4) monitors the implementation of the planned tasks; 5) modifies scheduled tasks; 6) performs self-assessment of the work performed
- Specifies the instruments for the promotion of clothing products used on the fashion market: 1) selects instruments for the promotion of clothing products; 2) indicates tools for the promotion and sale of clothing products; 3) defines the objectives of the promotion of clothing products; 4) identifies the types of outdoor advertising media; 5) select methods for promoting the collection of clothing products; 6) identifies types of online advertising media; 7) indicates the tools used in public relations; 8) indicates the names of social networking sites used to promote the fashion brand
- Systematically develop tasks, implement them in a structured manner and establish networking with other situations

[Human resources and employer-employee relations]

- Apply for a job in an appropriate way and can handle the application procedure in a goal-oriented way
- Clearly convey goals to all employees
- Evaluate the process of goal achievement
- Explain the aims, methods and importance of human resources development and of human resource allocation
- Explain ways to promote motivation
- Influence the way employees achieve their goals
- Know methods for the selection of personnel and can evaluate their advantages and disadvantages

[Work culture / ethos]

- Work independently and take responsibility for the results of own work (...)
- Act according to my strengths and resources
- Assess own performance
- Do tasks / work independently
- Evaluate own work processes and results
- Get satisfaction and motivation for new tasks from performance
- Keep agreements
- Set goals for oneself and pursue them or goals set by others consequently
- Show commitment and perseverance to complete tasks in a results-oriented manner
- Take the necessary steps to achieve my goals
- Use effective stress management strategies for myself
- Work carefully and reliably

[Methods and frameworks for task realization]

- Apply management techniques
- Apply strategic and operational marketing instruments

- Identify and evaluate the risks of business decisions and use suitable risk-political measures
- Implement the principles and methods of the continuous improvement process
- Initiate, plan, run and conclude projects according to the method of project management
- Know the practice-oriented quality management systems and can evaluate the importance of quality management
- Know the principles and instruments of a customer-oriented way of acting and can use them
- Organise oneself and ones working environment
- Present and argue working output situationally and target-group specifically

[Finance and accounting]

- Analyse costs and evaluate their effects on prices and operating results
- Calculate business-related taxes and fees and can transfer them
- Calculate costs and prices based on given data
- Calculate the gross margin and can take entrepreneurial decisions based on these calculations
- Calculate the profit or loss of a company by means of cash based accounting
- Calculate the taxable income of natural and juridical persons and the taxes connected to it
- Compile annual accounts
- Conclude and interpret payroll accounting
- Do cost accounting
- Draw up a budget and interpret it
- Evaluate legal aspects in connection with employment statuses
- Initiate and conclude marketing procedures
- Initiate and conclude procurement transactions
- Interpret and evaluate the annual accounts of a company
- Know the most important kinds of corporate finance and can evaluate their advantages and disadvantages
- Know the most important taxes and their effects
- Post current business cases on the basis of original documents in the double-entry accounting system

[Understanding company operations]

- Describe the company's knowledge organisation system
- Describe the company's routines for personnel management, and perform basic tasks related to personnel administration
- Evaluate changes at work and recommend solutions for improvements
- Give an account of the company's organisation, strategy and main objectives
- Identify the different execution phases of the project
- Perform customer service by adapting the provided services to clients and users
- Plan, execute, document and assess administrative and technical office tasks in line with instructions, routines, procedures and existing regulations

- Plan, perform and do quality assurance work in the company's knowledge organisation system and information flow methods
- Prepare and organise documents and information in accordance with company guidelines for layouts and use of language
- Understand one's working environment
- Use the company's client follow-up system for customer service and service work

[Doing work]

- Behave in ways which are consistent with the company's values and ethics
- Get involved in teamwork
- Lead a work meeting
- Perform office and administrative work in an ergonomically correct fashion
- Perform work according to rules and agreements that regulate employment in office and administrative work, and give an account of employer and employee rights and obligations
- Represent the department in meetings
- Work independently and achieve an individual objective
- Work within the rules laid down by a work team

Cultural awareness and expression competence

Descriptive category: Understanding and appreciation of culture

[Exercising awareness]

- Appear in the external appearance and role security and role awareness in line with the situation
- Be respectful and considerate when dealing with other people
- Respect other people and their attitudes and behaviours regardless of own opinion
- Cultural openness
- Participates in the discussion, justifies his own opinion, adopts the views of others or disputes with them
- Reflect on own behaviour in relation to the specific needs of other people

[Understanding culture]

- Define the concept of culture and explain how culture, gender roles and different forms of family and cohabitation vary from place to place, and how these have changed over time
- Describe the main features of (...) -culture today and reflect on what it means to be an indigenous person
- Discuss how religious, ethnicity and cultural variation create opportunities and challenges
- Recognizes different patterns of social, moral, national, religious, ethical, cultural attitudes and shapes their identity in their context
- Specifies the properties of language as a carrier and transmitter of cultural content
- Understands intercultural relations in (...)
- Understands the cultural perception of space by man and, based on source materials, analyses the differences in its perception in different cultural circles

- Understands the notion of literary and cultural tradition, recognizes elements of tradition in works, understands their role in building universal values

[Understanding western civilization and culture]

- Distinguishes the main cultural circles, presents the values of their communities and contribution to the cultural heritage of humanity
- Presents cultural and civilization changes in the world during the cold war
- Recognizes references to the civilizational and cultural context and the meaning of cultural symbols
- Shows the cultural and historical foundations of European unity

[Arts and literature appreciation]

- In the interpretation, he uses elements that are significant to read the meaning of the work (title, subtitle, points, composition, keywords, motto); literary and cultural contexts
- Participates in artistic performances organized by local artists and performers on the occasion of charity, occasional or anniversary concerts, as well as in music workshops conducted by various creators and animators
- Participates in culture through contact with monuments and works of contemporary art, having a sense of connection with the national tradition and European cultural heritage and appreciating the achievements of other cultural circles (knows the resources of selected cultural institutions)
- Recognise some artistic and stylistic elements
- Recognizes basic motifs (e.g. Homeland, poet, mother, land, wandering), literary allusions, cultural symbols and signs of tradition and defines their functions in the work; recognizes rhetorical organization of speech

Cultural awareness and expression competence

Descriptive category: Cultural expression

[Related to foreign language]

- Communicate in state official language and one foreign language
- Ability to communicate in writing and by word of mouth in state official language and two foreign languages (incl. Use of IT and Professional terminology)
- Express himself/ herself in one foreign language in written and spoken form

[Related to arts]

- In the interpretation, he uses elements that are significant to read the meaning of the work (title, subtitle, points, composition, keywords, motto); literary and cultural contexts
- He expresses feelings and emotions in relation to reality in artistic works, as well as from musical or literary inspirations (impression and expression); draws, paints, illustrates real and imagined phenomena and events (also in correlation with other objects)

[Linked to media literacy]

- Safely builds his image in the media;

- Publishes digital images in digital media and exhibition spaces: 1) specify the parameters of graphic files for publication; 2) preparing a digital photo gallery; 3) selects online publication methods; 4) performs activities related to the publication of digital images; 5) indicates the operational parameters of consumables for printing a digital image; 6) defines the technical parameters of devices for printing digital images; 7) selects the method of printing photographs intended for publication in the exhibition spaces; 8) prints photos; 9) performs activities related to the selection of exhibition systems and photography exposure; 10) publish digital images in accordance with the law
- Specifies the instruments for the promotion of clothing products used on the fashion market: 1) selects instruments for the promotion of clothing products; 2) indicates tools for the promotion and sale of clothing products; 3) defines the objectives of the promotion of clothing products; 4) identifies the types of outdoor advertising media; 5) select methods for promoting the collection of clothing products; 6) identifies types of online advertising media; 7) indicates the tools used in public relations; 8) indicates the names of social networking sites used to promote the fashion brand

Descriptive categories related to more than one transversal key competence

Descriptive category: Critical thinking

["just" critical thinking]

- Demonstrate critical thinking
- Develop an interest in reasoning based on argumentation
- Develop critical thinking skills
- Develop personal expression, argumentation and critical thinking skills.
- Think critically and ethically: employ a critical and ethical approach so as to put different visions of the world into perspective and be respectful in one's values and personality
- Think logically: employ a logical approach for the sake of consistency
- Critical or reasoned thinking (with regard to information, commercial offers...)
- Weigh up different aspects of complex tasks and problems

[self-reflection]

- Assess my performance
- Deal with my health-promoting and health-threatening behaviour
- Evaluate my work processes and results
- Evaluate one's performance with reference to the assignment, take responsibility for the result of own work
- Logically and realistically justify his/her own views, procedures and decisions,
- Reflect on how I deal with the media
- Reflect on my attitudes, attitudes, feelings, values and needs
- Reflect on my decisions
- Reflect on my educational planning
- Reflect on my manners
- Show empathy and selfreflection

[information search and processing]

- Ability to find, evaluate and creatively apply the information gained during design, construction and maintenance of electrical installations
- Ability to follow and find out about state-of-art technologies, tools and materials in the IT sector, use the web, data bases and other sources of technical information
- Critically analyses media messages
- Critically judge the information obtained
- Estimates the value of the expected calculation result, critically analyses the reality of the obtained result
- Evaluate data relating to the shipping procedures, draw conclusions
- Find, evaluate, select and make use of information
- Gather, evaluate and process cross-linked, technical information and can document it comprehensibly
- Judge the credibility of different sources of information
- Performs critical source selection
- Use a variety of digital search strategies to find and compare information that describes problems from different points of view and evaluate the objectives and relevance of one's sources
- Use and evaluate information from manuals and digital information sources for providing services and administrative office work
- Verify and interpret the data obtained

[related to groups]

- Communicate appropriately at the factual and relationship levels
- Describe what a communication content says on the relationship or factual level
- Reflect on group processes
- Reflect on my own behaviour in relation to the specific needs of other people

[scientific and academic thinking]

- Explore local, national or global problems of current interest and discuss and elaborate on the different recommendations for solutions, orally and in writing, with precise use of social science terminology
- Formulate a problem from current social science issues and write a discursive text using terminology, varied sources and referencing to sources
- Formulate, observe, sort and measure hypotheses
- Creates coherent statements in the following genre forms: argumentative character, paper, interpretative sketch, critical sketch, definition, encyclopaedic entry, synthesizing note

[critical thinking about society]

- Acquires and uses information on socio-cultural and political life, critically analyses it, draws conclusions and formulates opinions independently
- Critically analyses media messages and compares media messages about the same events or processes; formulates his own opinion based on known facts; recognizes the manifestations of unethical behaviour of journalists
- Discuss and elaborate on social science themes in a digital arena for discussion and evaluate one's understanding in light of input from the other participants in the arena

- Explains the principles of critical analysis and interpretation of various types of historical sources
- Performs critical analysis of materials from election campaigns (e.g. spots, memes, leaflets and slogans)
- Use concurrent and contradictory information from statistics to discuss and elaborate on a social science issue

Descriptive categories related to more than one transversal key competence

Descriptive category: Problem solving

[Methods, work organization]

- A methodical approach: stick to a single method for the sake of efficiency
- Analyse the boundaries of the problem
- Evaluate changes at work and recommend solutions for improvements
- Evaluate the process of goal achievement
- Find / choose the necessary strategies to perform management tasks in unpredictable situations
- Gather, evaluate and process cross-linked, technical information and can document it comprehensibly
- He applies problem solving methods: 1) distinguishes problem situations in terms of the source of the problem (e.g. material, emotional, personal, communication, lack of information or skills); 2) describes problem solving techniques depending on their source; 3) describes the problem situation taking into account cultural and social conditions; 4) describes alternative techniques for creative problem solving
- Identify the area of the agreement and the contradiction
- Identify the most important features of a problem, its various solutions, pros and cons in the given but also in the long-term context, criteria for choosing the ultimate optimal solution
- Make a suggestion as to how to organise space using the concepts studied
- Systematically develop tasks, implement them in a structured manner and establish networking with other situations
- Take on management tasks in an area with unforeseeable requirements
- Use strategies to develop a consensus

[Result orientation, constructivity]

- Act in a result-oriented manner in coordination with others in unforeseen situations
- Contribute cooperatively, responsibly and result-oriented
- Demonstrates creativity and openness to changes: 1) describes methods and ways of solving problems; 2) takes the initiative in an unusual situation; 3) evaluate various options for action; 4) uses methods and ways to solve problems
- Discuss constructively, actively submit progressive proposals and listen carefully to others
- Take constructive action in problem situations

[cooperative problem solving]

- Constructively deal with my own and other people's interests and needs
- Cooperate to solve problems with other people
- Coordinate my behaviour in the work process with others towards the common goal
- Develop a solution together with the conflict partners
- Develop my resources and skills in working with others
- Evaluate the achievement of results and the quality of the collaboration in my group
- Influence the way employees achieve their goals
- Support others to expand their resources and skills
- Work in a team and resolve conflict situations
- Work with others to set precise and realistic work goals

[conflict solving and performing in non-standard situations]

- Ability to resolve non-standard situations and perform worktasks under stress
- Deal with sensitivities in the group
- Describe the causes, triggers and content of conflicts
- Reflect on the conflict behaviour of everyone involved
- Resolve non-standard situations and perform worktasks under stress
- Respond appropriately to different situations including disputes and emergencies
- See signs of an emerging conflict
- Take steps to de-escalate

[mathematics and informatics]

- Apply the principles of structured and modular programming to solve the problem
- Designs problem solution (algorithm implementation) and selects the appropriate data structure
- Estimates the value of the expected calculation result, critically analyses the reality of the obtained result
- Evaluates the compliance of the algorithm with the problem specification
- Examines the effectiveness of computer solutions to problems
- He uses a greedy approach in solving problems
- Solve common mathematical problems and various situations
- Solve mathematical problems and various situations
- Uses an algorithmic approach to solve the problem
- Uses the descending and ascending method to solve the problem

Descriptive categories related to more than one transversal key competence

Descriptive category: Media literacy

[Communication using media and technologies]

- Communicates using information and communication technologies with members of the group cooperating on the project
- Coordinate my communication behavior with different communication media
- Design communication style in written communications in a way that is appropriate for the addressee

- Select communication media in a target-oriented and addressable manner
- Work with basic information and communication technologies
- Work with e-mail
- Work with various advanced information and communication technologies

[intellectual property and data protection]

- Aware of: importance of awareness among computer technology users and how it is related to personal data protection and safety, and efficiency
- Aware of: safe user information storage
- Considers the problem of intellectual property; explains what plagiarism is and makes a moral assessment about plagiarism
- Explains what they are: the right to privacy, including the protection of personal data and the citizen's right in dealing with the media
- Uses media messages about knowledge of art and artistic phenomena, uses their products in his creative activities (observing the basic principles of copyright law regarding the protection of intellectual property)
- Identify the key issues associated with industrial and intellectual property
- Observe data protection and confidentiality principles

[Information search and evaluation]

- Ability to follow and find out about state-of-art technologies, tools and materials in the IT sector, use the web, data bases and other sources of technical information
- Critically judge the information obtained
- Explains where to look for reliable health and sport information, and critically analyzes media information in this regard
- Improving the ability to use various sources of information, including digital resources, assessing their reliability, reliability and substantive correctness
- Make use of a variety of ways for seeking types of information and sources
- Use and evaluate information from manuals and digital information sources for providing services and administrative office work

[Understanding media in the society]

- Acquires and uses information on socio-cultural and political life, critically analyses it, draws conclusions and formulates opinions independently
- Critically analyses media messages and compares media messages about the same events or processes; formulates his own opinion based on known facts; recognizes the manifestations of unethical behaviour of journalists
- Critically analyses media messages, assessing their credibility and impartiality, and distinguishing information from comments
- Describes the opportunities and threats to the development of society resulting from the development of information and communication technologies
- Explains the ethical principles of the media and assesses examples of controversial activities of journalists and the media
- Performs critical analysis of materials from election campaigns (e.g. spots, memes, leaflets and slogans)

- Presents the main entities of public life (citizens, citizens' associations, media, politicians and parties, power, public institutions, business, etc.) and shows how they interact and compete with each other in public life
- Reads information contained in advertisements, distinguishing them from persuasive elements; indicates positive and negative examples of the impact of advertising on consumers

[Media and multimedia knowledge]

- Characterizes basic cultural media (word, image, sound, spectacle)
- Defines the concept of multimedia as a media that combines various forms of information transfer (text, sound, graphics, animation, video)
- Lists areas in which multimedia apply (art, advertising, education, entertainment)
- Lists various forms of cultural media (spoken word, writing, book, painting image, photography, film, television program, theater performance) and uses (new media, mass media, interactive media, multimedia)

[Media as means of expression or as a tool]

- Safely builds his image in the media;
- Publishes digital images in digital media and exhibition spaces: 1) specify the parameters of graphic files for publication; 2) preparing a digital photo gallery; 3) selects online publication methods; 4) performs activities related to the publication of digital images; 5) indicates the operational parameters of consumables for printing a digital image; 6) defines the technical parameters of devices for printing digital images; 7) selects the method of printing photographs intended for publication in the exhibition spaces; 8) prints photos; 9) performs activities related to the selection of exhibition systems and photography exposure; 10) publish digital images in accordance with the law
- Prepares a presentation or other form of multimedia expression - a blog, forum, website - on topics related to local and regional culture or the broadly understood problems of contemporary culture
- Specifies the instruments for the promotion of clothing products used on the fashion market: 1) selects instruments for the promotion of clothing products; 2) indicates tools for the promotion and sale of clothing products; 3) defines the objectives of the promotion of clothing products; 4) identifies the types of outdoor advertising media; 5) select methods for promoting the collection of clothing products; 6) identifies types of online advertising media; 7) indicates the tools used in public relations; 8) indicates the names of social networking sites used to promote the fashion brand
- Uses multimedia techniques in the production of advertising elements: 1) distinguishes between forms of audio advertising, e.g. Radio advertising, podcast, digital audio; 2) distinguishes between forms of video advertising, e.g. Television advertising, cinema advertising, interactive film, music video, top of the series or film, online video advertising, advertising using VR (Virtual reality); 3) selects the form of multimedia advertising for the advertising message; 4) performs the audio advertisement script; 5) performs an advertising movie storyboard and shootingboard; 6) performs radio advertising; 7) performs video advertising

- Uses digital media in the production of advertising elements: 1) distinguishes forms of digital advertising in the media, e.g. Website, online campaign, use of social platforms, mobile devices; 2) selects digital advertising forms to match the content of the message; 3) describes the specifics of creating a message adapted to mobile devices; 4) places elements of the advertising message on websites, including social platforms; 5) places elements of the advertising message on social media; 6) places elements of the advertising message on internet portals; 7) describes methods of building e-mail communication recipient bases; 8) describes ways to segment email recipients; 9) sends an e-mail to the recipient database using specialized tools

Descriptive categories related to more than one transversal key competence

Descriptive category: Creativity and innovation

[Declarations of creativity and openness to change]

- Is creative and consistent in performing tasks
- Is open to change
- Demonstrates creativity and openness to changes: 1) gives examples of the impact of change on various situations of social and economic life; 2) indicates examples of the introduction of the change and assesses the effects of its introduction; 3) suggests ways of solving problems related to the performance of professional tasks in unpredictable conditions
- Demonstrates creativity and openness to changes: 1) implements innovative activities while performing professional tasks; 2) justifies the need to be open to changes; 3) assesses their own creativity and openness to innovation; 4) justifies the need to be consistent in the implementation of professional tasks; 5) indicates examples of introduction of the change and assesses the effects of its introduction
- Demonstrates creativity and openness to changes: 1) indicates alternative ways of solving problems; 2) evaluate various options for action; 3) examine various sources of information, use available technical equipment

[Creativity and innovations in cooperation]

- Contribute my design ideas
- Develop new perspectives and approaches
- Collaborate, hear out instructions, formulate ideas and give instructions
- Evaluate changes at work and recommend solutions for improvements
- Make a suggestion as to how to organise space using the concepts studied
- Suggest a technical improvement to one's superiors
- Submit his/her own proposals to improve work, to consider the proposals of others without bias

[Innovative approach to using knowledge and skills]

- Make connections and cross-connections
- Use my skills in new tasks and problems
- Ability to find, evaluate and creatively apply the information gained during design, construction and maintenance of electrical installations

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Annex. Sources of examples of learning outcomes by country

AUSTRIA:

Curriculum for the Secondary College for Business Administration, 2014

<https://www.hak.cc/files/syllabus/bmb%20Translation%20Lehrplan%20HAK%202014.pdf>

School Organization Act, §2 Mission of the Austrian school, 1962

<https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10009265>

Teaching principles general and interdisciplinary tasks of the school

<https://www.bmbwf.gv.at/Themen/schule/schulpraxis/prinz.html>

FRANCE:

Decree no. 2006-830 of 11 July 2006 relating to the common core of knowledge and competences and modifying the Education Code

https://www.legifrance.gouv.fr/telecharger_rtf.do?idTexte=JORFTEXT000000818367&dateTexte=29990101

Decree no. 2015-372 of 31 March 2015 relating to the common core of knowledge, competences and culture

https://www.legifrance.gouv.fr/telecharger_rtf.do?idTexte=JORFTEXT000030236421&dateTexte=29990101

Conseil supérieur des programmes. *Programme charter: charter covering the design, implementation and monitoring of teaching programmes and methods of assessing school pupils*

http://cache.media.education.gouv.fr/file/04_Avril/37/5/charte_programme_csp_312375.pdf

Teaching programmes for primary and secondary schools, special official bulletin, 26 November 2015

http://cache.media.education.gouv.fr/file/MEN_SPE_11/67/3/2015_programmes_cycles234_4_12_ok_508673.pdf

Programmes for applied arts and culture.

Preparatory course for the CAP: Ministry of education official bulletin no. 8 of 25 February 2010

<http://www.education.gouv.fr/cid50634/mene0925395a.html>

Preparatory course for the Bac pro: Ministry of education official bulletin no. 2 of 19 February 2009

http://cache.media.education.gouv.fr/file/special_2/23/8/arts_appliques_cultures_artistiques_44238.pdf

Programmes for French language:

Preparatory course for the CAP: Ministry of education official bulletin no. 8 of 25 February 2010

<http://www.education.gouv.fr/cid50635/mene0925411a.html>

Preparatory course for the Bac pro: Ministry of education official bulletin no. 2 of 19 February 2009

http://cache.media.education.gouv.fr/file/special_2/24/5/francais_44245.pdf

Standards frameworks for Prevention Health Environment

courses For the CAP: Ministry of Education Official bulletin no. 30, 23 July 2009

https://sbssa.ac-versailles.fr/IMG/pdf/Programme_CAP_PSE_BO_no30_23-07-2009.pdf) For the Bac pro: the framework in the special official bulletin no. 2, 19 February 2009

https://sbssa.ac-versailles.fr/IMG/pdf/Programme_BAC_PSE_BO_no2_19-02-2009.pdf

Programme for moral and civic education For the CAP and the Bac pro: Order of 12 June 2015

http://www.education.gouv.fr/pid25535/bulletin_officiel.html?cid_bo=90243

DGEFP circular no. 2008/01 of 3 January 2008 relating to the Ministry of Employment's policy of intervention to provide access to the key competences for people making the transition into the workforce

https://travail-emploi.gouv.fr/publications/picts/bo/29022008/TRE_20080002_0010_p000.pdf

Act no. 2014-288 of 5 March 2014 relating to vocational training, employment and social democracy

https://www.legifrance.gouv.fr/telecharger_rtf.do?idTexte=LEGITEXT000028685180&dateTexte=20190102

Apapp. *Cahier des Charges national App : cadre de référence du label App*. Rouen, 2011.

<http://www.app-reseau.eu/upload/Cahier%20des%20charges%20APP%202011.pdf>

Inventory record sheet for the "Apprenant agile - Showcase one's ability to learn and adapt" qualification. <http://inventaire.cncp.gouv.fr/fiches/4162/>

Article 160 of the National Inter-industry Agreement of 5 October 2009 states that the COC will help to establish a Common core of competences

Article 12 of the National Inter-industry Agreement of 14 December 2013 states that “the COC will be responsible for establishing the Common core of vocational competences by the end of the first semester of 2014. It is also responsible for setting out the requirements for the issue of a qualification related to the Common core of vocational competences listed in the Inventory”

Act no. 2014-288 of 5 March 2014 relating to vocational training, employment and social democracy.

States that only courses which enable students to acquire the Common Core of Knowledge and Competences are eligible for the personal training account.

Decree no. 2015-172 of 13 February 2015 relating to the common core of vocational knowledge and competences.

Creates and defines the Common Core of Vocational Knowledge and Competences
<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000030236421>

Art D 6113-1 of the Labour Code sets out the requirements for the issue of the CléA qualification.

COPANEF is responsible for certification but the power to issue the qualification is also delegated to CPNEs

<https://www.juritravail.com/codes/code-travail/article/D6113-3.html>

Composition, role and missions of COPANEF are set out in articles L 6123-5 and R 6123-5 of the Labour Code: establish the direction of joint policies on vocational training and employment, coordinate these policies with government policies and those of other stakeholders, set out the policies to be implemented by the FPSP, compile a list of courses eligible for the personal training account in conjunction with the government, monitor the implementation of the personal training account and carry out any studies and investigations which are deemed necessary and disseminate and promote the work of the COC

<https://www.legifrance.gouv.fr/affichCodeArticle.do?cidTexte=LEGITEXT000006072050&idArticle=LEGIARTI000021340266&dateTexte=>
<https://www.juritravail.com/codes/code-travail/article/R6123-5.html>

The composition and role of COPAREFs are set out in article L 613-6 of the Labour Code: <https://www.juritravail.com/codes/code-travail/article/L6123-6.html>

COPANEF. *Socle de connaissances et de compétences professionnelles: cahiers des charges – Appel à propositions*. Paris, 2015.

Charter for access to the key competences for all

http://www.app-reseau.eu/upload/Charte_pour_laccs_de_tous_aux_CCE35.pdf

Standards Framework for Brevet professionnel - Baker Order of 15 February 2012

<http://eduscol.education.fr/referentiels-professionnels/e085.html>

Standards Framework for Baccalauréat professionnel - Baker and pastry chef Order of 2 July 2009

<http://eduscol.education.fr/referentiels-professionnels/a096.html>

Standards Framework for Baccalauréat professionnel - Production line manager Order of 30 March 2012

<http://eduscol.education.fr/referentiels-professionnels/index3a4a.html>

Standards framework for the CAP in Hairdressing

<http://eduscol.education.fr/referentiels-professionnels/b231.html>

Standards framework for the CAP in Beauty Hairdressing Perfumery

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Standards framework for the Bac Pro in Beauty Hairdressing Perfumery

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<http://eduscol.education.fr/referentiels-professionnels/a127.html>

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[Overordna del – verdier og prinsipper for grunnopplæringa]
<https://www.udir.no/lk20/overordnet-del/?lang=eng>

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<https://sokeresultat.udir.no/finnlareplan.html?fltypefiltermulti=Kunnskapsl%C3%B8ftet%202006&spraakmaalform=Engelsk>

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