A JOINT ALLIANCE TO DEVELOP A MOBILITY SCHEME AND SHARE BEST PRACTICES BETWEEN AFRICAN AND EUROPEAN VET SYSTEMS •

over step

Competence-based
curricula development:
a framework

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1. Introduction

1.1. A bridge between Africa and Europe: the project "Overstep"

Launched in late 2019, "Overstep: a joint alliance to develop a mobility scheme and share best practices between African and European VET systems" (EAC-2019-0572) is a pilot project, funded by the European Commission's Directorate General for Education and Culture (DG EAC) under the African Union (AU)-European Union (EU) Skills for Youth Employment Programme in the frame of the Africa-EU Partnership. Overstep focuses on encouraging the dialogue among the various African and European Vocational Education and Training (VET) providers in partnership about their didactic experiences, teaching methodologies and learning practices. Indeed, sharing good practices in VET allowed the project partners to improve the quality and the effectiveness of their curricula offered to students: in particular, the mobility scheme and intellectual output foreseen in Overstep established a pattern for boosting the possible demand of transnational mobility in VET among African countries and between Africa and Europe.

As per the title of the project, the objectives of Overstep includes the implementation of an exchange of experiences and best practices between the European and African VET Schools and training providers involved, in order to strengthen the link between the African VET systems and the labor market, as well as reinforce their investment in the transnational mobility (in continental and transcontinental perspectives) as a learning methodology, leading to the "improvement and modernization of VET systems of the African regions represented in the project".

More specifically, the project targets three specific VET fields: Agriculture, Food processing and Tourism. These key sectors have been selected because of their centrality in the economic system of all the countries represented in the partnership, both the African countries, and the European countries all bordering the Mediterranean Sea (France, Malta, Italy, Spain). These training sectors are considered strategic from the point of view of environmental sustainability as well.

The Italian company FMTS Experience Srl, which is a leader European organization in the field of transnational mobility and lifelong learning, supporting public and private entities in the implementation of the Erasmus+ Programme (Programme Accreditation procedure, Key Action 1 and 2 projects in the fields of School Education and Vocational Education and Training), committed itself to carrying out the management and monitoring of the Overstep partnership and the supervision of all activities implemented, including the realization of intellectual outputs. The first intellectual output foreseen by the project - whose management has been entrusted to the Maltese partner, ForMalta Ltd - focuses on competence-based methodology: the comparison and exchange between the staff of the VET

providers involved in partnership, set in the fourteen countries represented, led to the creation of the present handbook, the *Competence-based curricula development: a framework*. This dossier has born, first and foremost, from the dialogue between African and European teachers employed in vocational schools and their fifteen-day mobility experience abroad, as well as from a wider scholastic investigation.

The African partners in Overstep cover the 5 macro-regions of the continent, and specifically they are set:

- in the North, represented by:
  - Lycée Agricole de Thibar in Béja – Tunisie
- in the West, represented by:
  - Lycée Technique, Tertiaire et Industriel de Djakotomey in Bénin
  - Escola Secundaria "Olavo Moniz" in Espargos – Cape Verde
  - Ecole National de Formation Hôtelière et Touristique "Amala Sy" in Dakar – Sénégal
  - Federal University of Technology Akure - Secondary School in Nigeria
- in the Center, represented by:
  - Institut Supérieur d'Agriculture et de Gestion d'Obala – Cameroon
  - Institut Supérieur des Sciences Agronomiques, de l'Environnement et de l'Entrepreneuriat Rural in Sa'a – Cameroon
  - Lycée Professionnel Hôtelier d'Abidjan in Ivory Coast
  - Lycée Forestier et Agricole "Maurice Betote" in Libreville – Gabon
- in the East, represented by:
  - Thika College of Banking and Accountancy in Kenya
- in the South, represented by:
  - Unicom Agricultural Secondary School in Tweespruit - South Africa.

This list renders the complexity of a dialogue that implies many contextual differences, set on wide variety of levels: public and private schools, multiple languages and dialects, social, economic, historical, and cultural diversity. At the same time, the effort of coordination of this complexity let to a deep and rich interaction among the various institutions involved. Travelling from one border to the other of the two hemispheres, participants generated long-lasting connections among all countries involved: the network so generated provides the sustainability premises of the present intellectual output. The quality of these relationships enables to foresee in the next future a wider test of this theoretical exercise about common competence-based curricula.

2. Competence based curriculum: a theoretical perspective

2.1. Definitions and historical overview about Competence-based approach

Although it has become increasingly common to speak about competence-based learning approach, there is not a single agreed definition of it. "While competence-based education is a popular development, it remains unclear as to what exactly the term means and what this form of education should look like in practice. Naturally, this causes a great deal of confusion" (Wesselink, 2010). This is why it seems to be particularly important to analyze theoretical perspectives on competence-based education and training, in order to provide a better understanding of its use in the present argumentation.

To give practical essays of the possible different interpretations of the CBC methodology, it is useful to cite the article "Competence-Based Vocational Education and Training (VET): the Cases of England and France in a European Perspective" (Brockmann et al. 2008), in which the authors show that, despite using the same terminology, the French and English systems of competence-based learning imply very different meanings: a basically knowledge-based model in France and a more skills-based model in England. This is not just a methodological fetish, but a structural difference that would results in England in a competence-based system oriented to functional employability, while in France, it still encapsulates the multi-dimensional development of the individual as a citizen, as well as an employee.

Some research identifies the earliest antecedents of this methodology in the United States of America (USA) in the 1920s and suggests that competence-based approaches affected vocational training from the outset, reflecting an instructional design informed by psychology, particularly behaviorisms. Anyway, the systematic adoption of the competency-based approach would have arisen in the second half of the 20th century as part of USA educational policy at the height of the Cold War: the fear of accumulating a technological lag behind the USSR led to a national programme to improve teacher education, initially called 'performance-based teacher education' (PBTE), and later defined 'competence-based teacher education' (CBTE). Then the neo-liberal governments, spread all over the world in the 1980s, continued to invest in this perspective, assuring that efficient education and training systems, functional to the needs of the market, would have contributed to strengthening national economic performance (Mudler 2017, Soare 2014).

We will adopt a still functional definition proposed in 1979 by Grant to describe properly the main features of the competence-based approach. By Grant, it should be "a form of education that derives a curriculum from an analysis of a prospective or actual role in modern society and that attempts to certify student progress on the basis of demonstrated performance in some or all aspects of that role" (Grant et alii 1979): the given definition underlies that the academic knowledge evaluation are no longer the basis for curriculum development, replaced by the competencies needed for employment and participation in society (Wesselink 2010).

As already briefly outlined in the Introduction, the notion of competence in itself is not unambiguously defined, as well. Certainly, as it will emerge clearer from the following dissertation and historical analysis, "the definition of competence originates in Vocational

Education and Training, which is very concerned by preparing students to acquire the competencies needed in their professions, and in the contemporary society" (Soare 2014).

Nikolov (et al. 2014) reports several definitions, one which is particularly relevant to the present investigation: according to the European Qualification Framework, "competence means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development". Other definitions stress more some other features as the importance of the competence to be described "in a context of learning, education or training" (IEEE Reusable Competency Definition); or the capability of "effectively perform the activities of a given occupation or function to the standards expected in employment" (International Board of Standards for Training and Performance Instruction); or still, in wider sense, the ability "to deal with some classes of critical events, problems or tasks that can occur in a certain situation and ecological niche" (TEN – Competence).

A holistic interpretation, therefore, looks at competence as a person's ability to achieve specific results: it involves cultivating and demonstrating integrated performance-oriented skills, cognitive abilities to learn and organize knowledge, but also interactive, affective and, if necessary, psychomotor skills; yet attitudes and values are also required to perform tasks, solve problems and, more generally, to operate effectively in a given position or role (Soare 2014).

From the need to systematize this complexity has emerged several classifications of competencies. The most common is the division of soft (behavior and influences) and hard competences (technical skills). Then there are core ones (relevant sectorial business success), functional ones (useful to distinguish roles and interactions between roles), job specific, distinctive, threshold, transformational competences (i.e., developing competences) and so on. Moreover, recently, in 2010, the Lisbon Strategy enlisted seven universal key competences, transversal to all educational and training pathways: communication in the mother tongue, communication in foreign languages, competence in mathematics, science and technology, digital competence, learning to learn competences, intercultural, social, and civic competences, competences related to initiative and entrepreneurship (Nikolov 2014).

Before taking a quick look at the state of play of the competence-based approach to education in the European Union, it seems particularly useful to focus on the epistemological dimension of this method of education and learning. At least four fundamental conceptions of knowledge are identified in Mudler (et al. 2017): knowledge as truth, as authentic commitment, as power and as effective action. Each of these conceptions implies a different definition of epistemology and respectively disciplinary, constructivist, emancipatory and instrumental epistemologies. The aforementioned authors argue, on the basis of their analysis, that competence-based education is only directly compatible with the criteria of an instrumental epistemological perspective. This would explain the contemporary attractiveness of competence-based vocational education and training, oriented to a "globalising performativity": this reduced approach would risks downgrading

the priority of education (from the Latin *educere*) to valorize individual and contextual talents. Indeed, it is observed that in national curriculum reform processes, it has become common to incorporate themes and approaches that seem to shape an international educational agenda, with the risk of exporting and importing them without any contextualization and critical appropriation. Such standardization of national educational agendas is of growing concern to teachers, pedagogues, and researchers (Amadio, Operetti and Tedesco, 2015).

We begin to glimpse one of the critical profiles of the competence-based approach, which, however, suggests the possibility of revising the classical CBC approaches, integrating them with some of the educational epistemological alternatives, that, among other benefices, will be able to adapt the curriculum to different local context, as well. But these critical aspects will be discussed more extensively lately this paper (Mudler 2017).

2.2. *CBC development*

Historically, the definition of training and educational curriculum has often been reduced to a rather technical issue for ministries or pedagogical specialists, defining the minimum content and knowledge to be acquired by students in certain time frames. Indeed, the traditional curriculum prescription assumed that everyone could learn to act or think in the same way and that the education system was morally obliged to ensure that pupils reach the same standard, without considering diversity, personalization needs and inclusive education. The new teaching curricula attempt to articulate the needs of society with the personal learning and development needs of pupils, opening to a gradual transformation of the teacher's role as well.

As Amadio, Operetti and Tedesco (2015) point out, in recent years the debate on the curriculum has taken on a cleared political dimension by highlighting the link between the method of education and the type of society existing or desired: the debate has thus broadened, also involving stakeholders from the work environment, as well as a variety of local and international institutions. Talking about political implications of the educational and training system, it seems particularly important to highlight the fundamental role of public institutions, to prevent the absorption of curricula within the logic of corporate interests and the risks of downward 'globalization'.

Anyway, what seems to be enhanced in the new approach to the curriculum, is the growing attention paid to learning processes, more than to standardized results (although a certain degree of standardization remains unavoidable, but with greater flexibility): the main educational and curricular challenge is therefore to design learning experiences, and validate them even if informally acquired, combining personal and social fulfilment and pursuing scientific rationality in the construction of a personal critical knowledge capacity. Continuing on critical sides of the competence-based approach, if, as traditional content/time-based educational curricula have been considered objectionable for being too theoretical, more recent competence-based models are questioned as atomistic and limited to predictability. This opinion could derive from a partial point of view: in fact, competence-

based education set itself as a systematic but flexible approach. Although it focuses on defining in measurable terms what students should learn and assessing their ability to perform the designated tasks after training and educational pathways, it nevertheless includes aspects related to lifelong learning capability and the adoption of transversal skills.

For these reasons, as anticipated in the previous section, the operational definition of competence adopted here refers to a complex of learning outcomes and processes derived from related concepts of skills and knowledge, but also of methodological abilities and civic values. So, designing a competence-based curriculum (CBC) entails a multidimensional definition and organization of its structural components, not forgetting the necessary connection between the construction and assessment of competence with the individual situation of the person, his/her development, and ambitions, but also with the contextual reality of the socio-economic context.

Taking all these premises into account, as better described in the last chapter, in the cooperative work established between the Overstep project's partners it has been adopted a systematic methodology for competence-based curriculum development, as described in Nikolov (et al. 2014), consisting of six phases: conceptualization, planning, data collection, data analysis and creation of the competences catalog, development of the competence-based curriculum and develop applications/pilot test.

Indeed, the resources mobilized in a particular context, the constraints and obstacles present are fundamental to plan the development of competences. "Is built, this way, a new approach of competence that is the actional-situational competence as the finality of a new curricular paradigm determined by the situation centered approach (the so called *approche située*), promoted by the Observatory of Reforms in Education in Montreal" (Jonnaert, 2010 cited in Soare 2014).

At this point of the theoretical tools introduction and historical analysis, it seems necessary to introduce some others elements related to competence-based curricula development, that produced in the European Union (EU) countries – considered as core actors of the dialogue promoted by the project Overstep - an acceleration in the direction of the competence-based approach, especially with reference to Vocational Education and Training (whereas a more detailed analysis of the application of this methodology in the African countries involved in the Overstep project will be conducted in the next chapter).

Undoubtedly, the creation of a common EU labor market required rethinking the national qualification systems in order to assess their equivalence. This need is designated in numerous documents, but particularly significant is the "Lisbon strategy of enhancing European competitiveness and creating more and better jobs" (Lisbon European Council 2000). From a practical point of view, the introduction of the European Qualifications Framework (EQF) has been the capital policy instrument for establishing comparability of qualifications in order to improve the mobility of workers and, in combination with the European Credit Transfer System for Vocational Education and Training (ECVET), the

transferability between the national VET systems. In view of the great differences in the training systems and programmes adopted in the various EU countries, it became increasingly important to identify core competences on which these programmes were based.

The Lisbon process marked the beginning of a new European policy framework for education and training, setting goals and benchmarks and linking them to initiatives on lifelong learning. All the milestones of this pathway (among them, it seems important to cite the Barcelona Summit and the adoption of the *Action Plan for Skills and Mobility* in 2002) intended to create an ideal competence-based VET system capable to be more responsive to the quickly changing labor market and the employability needs of workers. Since then, competence has been seen as a unifying concept facilitating permeability between them, promoting professional and geographical mobility, providing the basis for accreditation of previous learning and recognition of work experience, and linking VET and higher education (Mudler 2017).

Thus, the European Qualifications Framework was born between 2004 and 2007, and it was formally adopted on 23 April 2008 as a Recommendation by the European Parliament and the Council. The eight reference levels of the EQF are described in terms of learning outcomes, making possible the comparison and cooperation between different VET national systems: thus, a learning outcome is defined as a statement of knowledge, skills and competence that a learner knows, understands and is able to do at the end of a learning process, with the emphasis on learning outcomes rather than focusing on inputs or duration of study (Nikolov et al. 2014).

Given that competence-based education cannot be limited to the definition of international educational policies and international or national qualification, certification or credit frameworks, but that all this must be taken into account in order to include mobility in educational and training processes – also as the most important objective of the project Overstep-, in this handbook it will be considered crucial to invest energy in the profile of adaptation of the curriculum and didactic processes to particular contexts, in competence assessment procedures, as well as in the career development of teachers.

3. Context Analysis per Country and School partner

3.1. An overview on the link between VET School and local market in African context involved in the project

3.1.1. Overstep focus groups: key findings

The project Overstep aims to improve the professional development of teachers and managers, the skills and employability of learners, the relevance and quality of teaching and learning in Vocational Education and Training (VET) in the sectors of Agriculture, Food processing, Tourism and Hotel services in African countries. The Work Package 3 (WP3) of Overstep foresees the establishment of 3 working sub-groups, one for each VET sector addressed by the project, aiming to define competence-based curricula. The groups are

composed of Staff members from the African Schools in partnership and teachers and managers of European VET providers.

To allow an in-depth context analysis and to increase awareness among partners about transversal weaknesses and common needs of the respective VET systems, 3 Focus Groups were implemented in July 2021.

ForMalta Ltd, the Maltese partner, coordinated the implementation of the 3 Focus Groups, whose main objectives of Focus Groups have been:

- to explore the first results emerged from online surveys targeted to African schools and business stakeholders.
- to fill possible information gaps between educators and professional stakeholders regarding VET.
- triangulating opinions about main criticisms and possibilities in VET.

The format of each session was two-fold: VET staff participants had the opportunity to share their experience and opinion about topics anticipated previously, by a short version of the Guide of Questions; in the second part, VET professionals discussed with experts from the related economic sector.

The key findings more frequently highlighted in the 3 sessions of dialogue offer the image of Vocational Education and Training as a preparation path to employment and never to be considered as an end in itself. This means that VET has to be rooted in the needs of the related economic sector. Infact, if schools maintain a strategic role as a space for building cutting-edge skills, for safeguarding tradition and the ethics of productive activity, this does not mean that they can isolate themselves from the surrounding context.

To this end, it is considered essential to encourage cooperation with local and international private companies, other schools/VET providers and institutions.

A better degree of dialogue with private companies would allow to make school's curricula more responsive to rapid technological advances and ever-changing market challenges and to give opportunities of practical experience to the students, as long as it has to be set as quality experience: schools have to find mechanisms of collaboration with companies to make this opportunity as fruitful as possible for the students. From this point of view, it is considered advantageous for internships not only to take place in the local area, but to be carried out through national and international mobility, which favours the acquisition of soft skills and diversifies the experiences of young students. Also, collaboration with companies would allow to activate in-company Teachers' Training courses. Participants suggest, among other measures considered effective in fostering acquaintance between companies and schools, the use of open days, awareness campaigns, but also sponsorship of learning modules by the companies themselves.

Secondly, collaboration among schools is seen as a strategic choice of cross-fertilization, to improve the educational and training offer, through exchanges and mobility scheme between staff members, both within the country and internationally. Building coordination

platforms for schools or teachers facilitates matching processes with companies, but it is also useful to set them as a stronger stakeholder in the dialogue with institutions.

Finally, the role of institutions, both ministerial and local, remains central. In fact, the participants think that ministerial institutions have the task of updating curricula and teachers, providing funds for the modernization of technologies, promoting exchange projects and mobility activities. Public institutions have a responsibility in terms of policies too, to guarantee young people, access to land, financial credit and higher education.
Institutions also play an irreplaceable role in designing and implementing infrastructural projects (improving transport and communication, access to electricity, water and internet, etc.) that increase local economic potential, both in tourism and agricultural/food production sectors.

3.1.2.   *Overstep surveys: results*

Between 2020 and 2021, two online surveys were conducted for companies and VET providers/schools in the 10 African countries covered by the project. The questionnaires had the task of identifying strengths and weaknesses, opportunities and threats common to the different contexts, to focus the debate on profiles of shared interest among the partners. It is evident from the outset that this is an exercise that is not representative of the degree of diversity of the considerably more complex needs of the different actors involved: as already taken into consideration in the introduction to the present Handbook, the fact of having a vast audience of stakeholders with non-assimilable characteristics constitutes a methodological limitation to the standardization of the research.

However, the investigation effort carried out by the project partners, by cross-referencing the data with the research of scientific sources and the qualitative analysis derived from the Focus Groups carried out, allows to define with a good approximation the necessary basis of needs analysis, useful to initiate a common dialogue on the development of competence-based Curricula and an effective exchange of good practices, without however exempting each partner (or actor interested in this research method) from the subsequent work of adapting it to the local reality.

As for the questionnaire addressed to schools, 80 answers were collected, of which more than a quarter in Tunisia alone and about a quarter in Cameroon. The rest of the responses are distributed among the remaining African countries.
The total number of students who are educated and trained in these 80 schools is close to 70,000, with an average of almost 900 students per school. From a demographic point of view, 3/5 of the schools surveyed state that they do not have a gender-balanced student body, having a predominantly male student population. On average, each school employs 65 members of teaching staff and 17 members of non-teaching staff.

Of the 80 schools reached by the questionnaire, 63.75% claim to provide Vocational Education at secondary level; 50% provide training in the agricultural sector, 17.5% in the

agricultural and industrial sector and 16.3% in the tourism sector. The remaining part offers training in other vocational sectors.

In terms of teaching approach, 4/5 of the respondents stated that their schools adopt a mixed approach between practice and theory. Furthermore, when asked to name at least one innovative teaching method applied in their school, 50% also mentioned the competence-based approach.

The curriculum adopted in these schools in addition to theoretical and practical technical skills seems to be very focused on the achievement of soft skills (about 2/3 of the respondents), but also on transversal skills such as digital and language skills (about 16% for each answer). In 80% of the answers it emerges that teachers actively participate in curriculum planning. Also for this reason it could be deduced, the professional updating of the teaching staff (which on average is 37 years old and seems to have for ¼ at least a Master's degree and for a further quarter technical certifications and/or secondary school diploma) is held in high regard, so much so that 70% of the schools reached state that the teachers in their school participate in training activities at least once a year.

The degree of educational success among students seems to be quite high with 89% of respondents stating that most students successfully complete their courses, while the remaining 11% state that all students successfully complete their education. Of the students, however, 58% of the schools state that only few continue on to higher education. This figure should be read in conjunction with that on employment at the end of study: 20% of schools state that most students find a job after graduation within 6 months, 18% within a year, and as many as 62% after more than a year. However, schools state that the overall level of student achievement is sufficient for 71% of respondents, while for only 14% the level is insufficient. For the remaining 15% the level is more than sufficient.

With the second survey, the one dedicated to companies, 102 responses were collected. In this case, as many as 38% of the responses came from Cameroon alone. 64% of the companies involved are small (1 to 10 employees), 25% are medium-sized (11 to 30 employees) or medium to large (31 to 50), while, finally, 11% say they have more than 50 employees. 37% of these enterprises are active in agriculture, forestry, animal husbandry or fishing; 31% in food processing, 14% in the HO.RE.CA. sector; the residual part operates in other sectors. When asked the question 'Is your company open to international market?', this group answered in 32 cases 'no, but we have clients in different regions of the country', in 34 cases 'no, we only work in our region' and in 35 cases they declared to be active in the international market.

Concerning the connection with the VET world, as many as 75% of the respondents states that they are in contact with Technical and Professional Schools in the region and 48% that they also have relationships with schools outside their region. In contrast to this positive figure, only 17% of the companies states that they would find it 'extremely useful' to 'establish/enlarge cooperation with Technical and Professional Schools', which added to those who, however, consider it at least 'useful' reaches 45% of the total interviewees.

44% already host trainees. Note that 53% of the respondents do not answer this question. The trainees, whom 32 of the companies say come from 'professional and technical schools all over the country', are mostly involved full-time in the company.

48 of the 102 companies surveyed answered the question on the degree of preparation of their interns/apprentices/students: 62.5% of respondents said they were satisfied. And yet 1/3 of them consider that it takes more than 6 months to train interns before they can be autonomous in their working tasks.

Questioned about the main skills that interns/students/apprentices need to improve, (it was possible to choose more than one option), 37 companies responded that it would be necessary to invest more in technical skills, closely followed by teamwork, organizational skills, flexibility and time management. Communication skills were also among the most frequently skills referred to (25 responses). The importance of language skills also emerges (16 answers), while only 11 companies asked for improving digital skills. However, 75% of the total number of people surveyed consider it "moderately useful" to "useful" to have an intern/apprentice/student who has been trained abroad and 17% would consider it extremely "useful".

3.2.   Competence-based approach in countries targeted by the project.

From the pervasiveness of its affirmation, it could be possible to speak of a real 'competence-based training (CBT) movement'. This had an impact in the world of technical and vocational training in the countries of the global North, but on the African continent as well. From the 1990s onwards, such an approach spread to the countries of the southern hemisphere, driven by bilateral and multilateral cooperation programmes (UNESCO, IIEP, IFEF 2020). In Africa, the transition from a school attended by an elite to a school for all, set out in particular in the *Dakar Declaration on Education for All* under the impetus of the main *Millennium Development Goals*, has led to the questioning of curricula and the search for new programmes and methods (Cros et al. 2009).

At the beginning of the 2020s, most of the francophone African countries that embarked on public vocational training policy reform adopted the CBT approach as a teaching model. Some, such as Morocco and Senegal, developed their own methodological guides based on the CBT model, only sometimes drawing inspiration from the guides published by the *Organisation internationale de la francophonie* (OIF) a decade earlier, while others, such as Côte d'Ivoire, directly adopted the methodology outlined in the OIF guides, with only minor adaptations. Several non-French-speaking African countries have also undertaken reforms in their technical education and vocational training policies over the past two decades (UNESCO, IIEP, IFEF 2020).

The initial decision-making process that would lead many of Africa's education systems to convert to competence-based approach was mainly political and centrally managed: government authorities set up the *Etats Généraux de l'éducation* and, most often with the

help of international experts, produced a *Loi d'orientation* that redefined both the structure and content of basic education and teaching practices. International expertise played a decisive role in this process, along with the financial aid provided by international donors, without always taking adequate account of contextual differences (Cros et al. 2009).

The basic principles are the same and are based on greater involvement of the business sector in defining both the training provided and the competences covered (UNESCO, IIEP, IFEF 2020). On the basis of these general notions, an analysis of the situations in the ten countries involved in the Overstep project is proposed below on a case-by-case basis. The analyses were drafted with the contribution of the African partner schools.

3.2.1 Benin

Since 1990, the competence-based curriculum has been introduced into the Beninese education system through the choice of experimental classes at primary level, which then became widespread in 1999. The same approach was adopted at secondary level in 2001. This decision was taken during the national conference on education held in Benin from 2 to 9 December 1990.
In the absence of a national education policy law, the Beninese government published a Declaration of Educational Policy and Sectoral Strategy in 1991, which stated that "in general terms, Benin's schools should henceforth train people who are technically competent and humanly balanced; train people who are constantly efficient, with a spirit of initiative, a taste for research, capable of self-employment, creating jobs and contributing effectively to Benin's development" (Gbénou et al., 1999, p. 66).
This strategic choice was reflected in the vocational training system by the development and modernization of apprenticeship training carried out by master craftsmen in their businesses and workshops in 2001 and subsequent years.

There are three types of apprenticeship: dual apprenticeship, vocational apprenticeship and post-basic education combined training. In technical education, nine technical curricula have been developed in accordance with the CBA. However, the coexistence of different methods and approaches, i.e. pedagogy by objectives, CBA, content pedagogy, etc. for the development, revision and/or renovation of curricula within the TVET system in Benin remains a major constraint to the modernization of this system. The pedagogical reform is broken down into fifteen action plans grouped into three components: pedagogy, content and teaching methods. Primary education is well advanced. General secondary education is in the process of following in the footsteps of primary education, and technical and vocational secondary education has just finalized a framework document for vocational training.

The competency-based curriculum approach has been adopted at the Lycée de Djakotomey since its creation in February 2016. Firstly, because it is the approach adopted in Benin's education system, from primary nursery education, technical secondary education and vocational training through to university. Secondly, the Lycée Technique Tertiaire et Industriel de Djakotomey has chosen this approach in order to train people who can constantly performing at their best, who have a spirit of initiative and a taste for research,

and who are capable of self-employment, creating jobs and contributing effectively to the development of Benin.

It isapplied is the active method, which involves putting the learner at the centre of the conception of knowledge. This is how it works during class or learning sessions. Learners are given a student document prepared by the teacher on the day's lesson. The teacher puts the learners to work for a set period of time to produce an individual piece of work. During this individual work by the learners, the teacher circulates and carefully checks the effectiveness of the individual work and the level of understanding of each learner in relation to the activity. After this stage, the teacher forms small groups, each of which appoints a moderator and a reporter from its peers to harmonise the answers found over a set period of time. During the group work, the teacher also circulates to answer clarifying questions from the groups to help harmonise points of view on the tasks in the activity. Finally, with the teacher's guidance, the plenary session begins, during which at least two rapporteurs from each group present their work on the board. The other groups are then given the floor to make amendments, and the teacher readjusts the answers for the summary.

For practical lessons, such as culinary production, the teacher prepares a technical sheet and makes it available to the learners. This sheet contains the various steps to be followed to prepare the menu of the day, which serves as a guide for the learners. The teacher facilitates the activity. We have trained effective learners who are accessible to the job market and capable of self-employment.

One of the weaknesses of training engineering in Benin is the use of many different methods and approaches to develop, revise and/or renovate curricula.
The analysis of training engineering practices in Vocational Education and Training reveals many dysfunctions, particularly at the level of technical education curricula:

- The fact that the training provided is more theoretical than practical.
- The lack of effective, regular information and studies, particularly on changes in jobs and qualifications.
- The application of the content-based approach, even though Benin has opted to design training courses in accordance with the CBA.
- Methods for developing and revising curricula are not sufficiently tried and tested and are not regularly implemented.
- Lack of ongoing training for trainers.

Moreover, there is a lack of materials and equipment of sufficient quality and quantity in training establishments. As a result, learners do not develop the skills they need to practice their skills.

3.2.2. Cape Verde

If Cape Verdean institution has been successful in providing access to primary education in all the islands of the archipelago, ensuring the access to education at the secondary and upper-secondary levele is still challenging. Even if the rate of transition from primary school to secondary school from 2008 to 2009 was 93%, a great part of students does not complete

the courses (Longenecker and Barnum 2017). It's since the 1990s, immediately after the first free elections in 1991, that the Cape Verdean vocational education and training system has seen significant changes both organizationally and in the curricula design. As a first step, secondary schools were built and activated in each island, enabling all children and adolescents to access secondary education everywhere. The school infrastructure democratized and massified education, but the educational reform of the last decade of the last century required curricular adaptation too.

However, a reform process is only reached with the new Basic Law of the Educational System (Lei de Base do Sistema Educativo - LBSE), introduced by Decree-Law No. 2/2010 of 7 May, amended in 2018 (DL No. 13/2018), which aims to strengthen the capacity and quality of response to Cape Verde's development challenges and future prospects. In this sense, the qualification of human capital is a key resource, focusing on education based on the development of skills, citizenship values and "social competitiveness in the framework of the knowledge economy". According to the fundamental law of the education system (Art. 28), the technical pathway is "programmed for the acquisition of technical and scientific knowledge and for the achievement of an adequate specialization, in order to allow the exercise of certain professional activities, without prejudice to the pursuit of higher studies", as well as for lifelong learning. However, many observers believe that in Cape Verde, the paradigm of competence-based education and training has not yet reached its development, showing a discontinuous and not always adequate application (De Jesus Rocha 2022).

The problem of the competency-based approach is a concern for the educational community in Cape Verde. Its implementation in teaching and learning, as well as in the leadership of school organizations, is not supported by previous studies that redirect curricular and teaching and learning policies. An important análisis about this topic is represented by the doctoral thesis by Benvindo De Jesus Rocha, entitled "Abordagem por Competências no Ensino Técnico e na Formação Profissional em Cabo Verde: Uma Visão Sistémica dos Gestores, Professores e Alunos". This research was carried out in 2022 at technical secondary schools on the islands of Santo Antão, São Vicente and Santiago, at two vocational training centres run by the Institute of Employment and Vocational Training (IEFP) on the islands of Sal and São Vicente, and at a private technical vocational school. The research tried to answer various questions about how the concept of competence has been changing the organization and practices of teachers and leaders in the context of technical and vocational education in Cape Verde, how have these changes been implemented in teaching practice and how have technical and vocational training agents been working with the employability sector to transfer school knowledge to the labour market. The results indicated the persistence of some misconceptions about the concept of competence among those involved in the technical and vocational education sub-system: school directors considered that the competency approach is one of the most mentioned topics, but, in practice, that is not a reality in the everyday school environment.
Competency-based teaching and learning in Cape Verde has generated some controversy not only in pedagogical spaces, but also in administrative practices. Training in the competency-based approach has been so minimal that the understanding and appropriation

of the concept by Cape Verdean social and educational actors shows notable weaknesses, continue De Jesus Rocha, both among teachers and middle and top management.

Since the 1990s, the vocational education and training system has been transformed, with successive changes in both organizational structures and the design of apprenticeship and training curricula: with just two high schools and a technical school in Cape Verde in 1990, the Domingos Ramos High School in Praia on the island of Santiago, the Ludgero Lima High School and the Mindelo Industrial and Commercial School in São Vicente, children wanted to continue their studies after primary school had to go to these two islands, causing exorbitant costs for their families. Given the low level of technical and professional qualifications at the beginning of the 1990s, political decision-makers began to redesign the new education and training model for Cape Verde, as a way of remedying the country's training deficiencies and weak economic dynamism, resulting from its low per capita income.

In 1991, with the change in the political system, secondary schools were built and opened on all the islands, giving all children and teenagers access to secondary education, in an attempt to flatten the curve of professional disqualification and existing social inequalities. The 1990s ushered in a new era of education and training in Cape Verde, which democratized and massified education, making the system rapidly competitive, especially in the race for families to access public funding for higher education.

In the first decade of this millennium, the curriculum reform of the 1990s proved to be inefficient in an increasingly competitive and globalized world. Education and teaching began to be the object of greater concern for governments and curriculum theorists. Curriculum change is a process that is part of the new basic law of the education system (LBSE), legitimized by Decree-Law 2/2010 of 7 May, amended in 2018 (DL 13/2018), which aims to strengthen the capacity and quality of response to the challenges of Cape Verde's development and future prospects. In this sense, the qualification of human capital is a fundamental resource, with a focus on teaching based on the development of skills, prioritizing the inculcation of citizenship values and social competitiveness within the framework of the knowledge economy.

Fifteen years after the revision of technical education programmes, with the introduction of competency-based teaching, and 10 years after the publication of the basic law of the education system, which legally introduced the competency-based approach into the curricula of the different education subsystems, the implementation of the new teaching and learning model seems showing some precariousness.

In Cape Verde, with the competency-based education and training paradigm many expectations among social actors and education professionals arose. New legal instruments that orientate towards the new model for the actions of those involved in this qualification process have been studied and produced, such as the 2010 Basic Law on the Education System, Article 24 of which proposes that students who have passed the first cycle can enter extra-curricular training systems. Entering the vocational training system allows students to obtain a professional qualification that will give them new alternatives in the social field if they leave the formal education system. Among other instruments, it seems important to mention the General Legal Regime of the National Qualifications System (Decree-Law no. 22/2010 of 14 June), the National Qualifications Framework (Decree-Law no. 65/2010 of 27 December), the National Catalogue of Professional Qualifications (Decree-Law no.

66/2010 of 27 December), implementation of new study plans, implementation of post-secondary specialised vocational courses for better integration into the labour market, initial training for technical education teachers and managers, training of monitors to reinforce workshop practices, increase in the bibliographic collection in technical education schools.

3.2.3. Cameroon

The term "competency-based approach" is still relatively recent on the African continent (Rogiers, 2008). It was in 1994, at the Conference of Ministers of Education having French as a common language (CONFEMEN), that the concept of "competence" was explicitly mentioned for the first time (Rogiers, 2008). Cameroon held the Etats Généraux de l'Education in 1995. The Ministry of National Education encompassed the entire education system, including nursery, primary, general secondary and technical and vocational secondary education. It was therefore a systemic and holistic reform of the Cameroonian education system. In order to place particular emphasis on technical and vocational education and relying on the latter for the country's overall development through training, the Cameroon government created the Ministry of Technical Education and Vocational Training (MINETFP), which lasted for two (02) years between 2002 and 2004. Following a ministerial reshuffle, this ministry came to an end, giving rise to the Ministry of Employment and Vocational Training (MINEFOP).

Later, the General Conference on Education led to the adoption of Law No. 98/004 of 18 April 1998 on the orientation of education in Cameroon. The recommendations contained therein already propose reform.

In Cameroon, the competency-based approach was officially introduced in 2006 by Order n°315/B1/1464/MINEDUB of 21 February 2006. As far as technical secondary education is concerned, the competency-based approach was introduced during the 2022-2023 school year in the final year.

This introduction was prompted by the fact that, despite the measures taken in the objectives-based approach, there has been a drop in the success rate at national level. In addition, the difficulties encountered by the State in reducing youth unemployment and providing a reliable solution to the problem of the mismatch between training and employment are at the root of the idea of implementing this approach.

In view of the objectives set for 2035, the official instructions are concerned with a teaching approach centred on the acquisition of competences and which should mark the transition from the teaching paradigm to that of learning, from practices centred on the transmission of knowledge and the certification of knowledge to practices centred on the appropriation of skills and assistance to learners, with the ultimate aim of enabling learners to solve the problems they face in their everyday environment and to be creative.

According to MINEDUB (2004), the Curriculum for Basic Education Level 1 distinguishes three types of skills:

- Disciplinary competences, which are linked to areas of education or to specific subjects.

- Cross-curricular competences, which cover several areas of learning and developed by solving problem skills. They are intellectual, methodological, personal, social and communicational competences.
- Life skills, which are linked to the attitudes and behaviours that are essential for adapting to life and serve as a link between learning at school and everyday life.

In Cameroon, according to the Ministry of Basic Education (2004), the curriculum has to present the following characteristics:

- A wide pedagogical action plan.
- A global and integrated approach to learning.
- A comprehensive, integrated approach to learning.
- the Decompartmentalisation of subjects and grouping them into "domains";
- A problem-solving approach to learning, based on the link between school and life, to give meaning to what is learnt at school.
- A different role for the teacher, who facilitates the acquisition of skills and/or provides guidance to create an environment conducive to learning.

At the Institut Supérieur d'Agriculture et de Gestion d'Obala, the competence-based approach is applied in the form of the Dual model, which combines theoretical and practical learning. The latter was chosen with a view to making our learners operational and ready to work in the field. But also, with the aim of turning our learners into business creators and agropastoral entrepreneurs. This approach was introduced when the Institute was founded in 2012. It is fully in line with the school's vision, which is to position itself as a sub-regional skills centre for training and setting up agricultural entrepreneurs.

The method used consists of putting the learner in a real work situation after having passed on the theoretical knowledge. The technical skills are passed on through practice, which may be carried out by a member of staff or by a resource person with experience in the field. The student is asked to replicate the procedure as taught by the resource person. The outcome is that the student is able to practice the skill themselves and set up a business in a particular field. Since it was set up, ISAGO has used this method to enable several young people to become self-employed and to set up businesses that recruit other young people. The main problem in implementing this approach is the lack of all the technical facilities needed for learners to practise. The difficulty of acquiring the laboratory equipment needed for certain important manipulations.

The competency-based approach has also been adopted at Issaeer. It has been introduced into teaching practices since its creation in 2013. Issaeer trains young people in agropastoral entrepreneurship, with the aim of integrating graduates into socio-professional life after training. Young people are trained to create jobs and wealth, not to look for work after training. Issaeer aims to equip learners with a certain number of skills, twelve in total, contained in four areas of expertise. As the school is located in a predominantly rural area,

and given the decline in production on farms and the high unemployment rate among young people, Issaeer believes that this approach will enable young people to acquire training that will not only help them boost production on family farms, but also enable them to create their own farms so that they can live independently.

On arrival, the young people are welcomed and subjected to an exercise called a "photo". During this exercise, the trainer identifies the learner's project idea, skills and aptitudes for carrying out their socio-professional integration project. It is on the basis of this project idea that the young person is supported throughout their training. This project will be presented to a jury at the end of the course. The training programme is based on the skills described above. The assessment of these skills is based on an explanatory interview, with the skill being declared acquired or not acquired. Each trainer selects significant professional situations (SPS) from which the teaching session is built with a view to achieving the defined sub-objective. The teaching is based on socio-constructivism and, of course, learning by doing. Learners spend 20% of their time on theory, 40% on practical work and 40% in a socio-professional environment during work placements. This is context-based teaching.

There are three levels of expected results. The first is the acquisition of the skills in the programme. The second is the presentation (defence) of the integration project, and the third is the effective socio-professional integration of the learners, mainly through the creation of viable and sustainable agropastoral businesses.

Results to date. The results so far are mixed. The employment rate for school graduates is barely 30%.

At institutional level, there is a lack of adequate training equipment and materials, given that the learner has to handle the object of study. The technical facilities do not meet training needs satisfactorily. As far as teaching is concerned, the trainers are not always experts in teaching and therefore have no initial training. Some of them do, however, learn about the approach through capacity-building courses organised from time to time by partners. We pointed out this weakness in our dissertation for a master's in education sciences, majoring in training engineering and active and creative teaching methods, the subject of which was "Training arrangements and socio-professional integration of learners in private agropastoral institutes in Cameroon". Lastly, on the subject of integrating young people, the fairly low rate is explained by the fact that it is difficult for some people to mobilize funds to launch a project. Funding bodies very often require a 10% personal contribution out of the total amount of the business plan.

3.2.4. Gabon

International reports and scientific research seem to paint a difficult situation in Gabon in the field of education and training due to structural deficiencies and inequalities in the distribution of resources, as well as inefficiency and ineffectiveness. Through international meetings (Jomtien, 1990; Dakar, 2000) and national meetings (1983, 1996, 1997, 1998), followed by the Estates General on Education, Training and Research (2010), a new education policy was introduced through Law No. 21/2011 approved on 14 February 2012, which guarantees access to education and training to all young people aged between 3 and 16 years, Gabonese or foreigners, resident in Gabon. There are also plans to adopt the competency-based approach and new processes for assessing learning outcomes: this work

was carried out by technicians from the Institut pédagogique national (IPN), through the EU-funded *'Soutien à l'éducation de base'* project, with the support of an international team of experts. Thus, Ministerial Decrees No. 001810 and No. 001809 of 10 August 2005 introduced the 'basic skills approach', 'new evaluation processes for learning outcomes' and 'the reduction of primary schooling from six to five years' in the Gabonese system.

According to the ILO, the vocational training sector in Gabon offers scarce opportunities that are not adapted to emerging economic sectors. The National Employment Office itself signals a significant lack of consistency between labor supply and demand, at all levels of qualification. A reorganization of ministries led to the merger of the Ministry of Employment, Youth, Vocational Training, Integration, and Reintegration (MEJFPIR) with the Ministry of Civil Service, Innovation, Public Service, and Labor to create the Ministry of Employment, Civil Service, Labor, and Vocational Training, responsible for, among other things, skills creation and recognition. The Emerging Gabon Strategic Plan addresses the issue of skills and provides for a system of information and education management (SIME), and curriculum and training reform.

The skills development system is under the auspices of several institutions and cooperation among them is poor, reports the ILO again; synergies exist, especially at the level of international cooperation.
The system of technical and vocational education and training is poorly calibrated in terms of quality, quantity and equity: there is a poor geographical distribution of training opportunities, a lack of modern training specialties demanded by employers, a lack of interdisciplinary skills training, a lack of sufficient practical work and overly theoretical vocational preparation. There is also a high level of gender inequality. There are nine state-run vocational training centers, 11 higher technical schools (7,000 students) and one trade school. There are also private institutes developing across the country, but their numbers are unknown. Some of these institutes are not approved by the state. In the public system, technical and vocational education and training offer forty-three programs, seventeen of which are in the tertiary sector, but the courses remain conventional and there is little return. Governance is highly centralized, but because there are many private centers and companies organize in-house training using these private centers, certifications, levels, and training programs are neither harmonized nor monitored in terms of quality.

The Gabonese certification system, then, the ILO adds, allows for qualifications at five levels in technical and vocational education and training. The approach is eminently adaptationist, and there is a close theoretical correspondence-an adequacy-between the level of certification and the job qualification that selected candidates can occupy. The qualifications issued in Gabon suffer from a lack of recognition by economic actors, partly because the training programs (curricula) used are unfamiliar to practitioners or because they do not meet their expectations, particularly in terms of the balance between theoretical knowledge, practical knowledge, and soft skills. There is little transparency about the learning outcomes and competencies of technical and vocational education and training graduates. Work on the National Qualifications Framework has not led to a consensus on a common language

for competencies, qualifications and certification, nor to the development of an operational repertoire of qualifications.

The pedagogical innovation related to the "competency-based approach" and the "new processes for assessing learning achievement" were recommended by the plan to combat repetition (2001), in order to increase the internal efficiency of the system. As mentioned, it was carried out by technicians from the Institut pédagogique national (IPN), through the "Support for basic education" project funded by the European Union, with the support of international expertise made up of De Ketele, Roegiers and the team from the Bureau d'ingénierie en éducation et en formation, all specialists in APC education and training curricula. Ministerial decrees no. 001810 and no. 001809 of 10 August 2005 introduced the "basic skills approach", "new processes for assessing learning achievement" and "the reduction of primary schooling from six to five years".

Fifteen years after the introduction of the CBA, the IPN readjusted the curricula. However, the implementation of CBA is not sufficiently integrated into initial and in-service training systems. Pre-primary education, although not generalized, has developed considerably throughout the country. Eight years after the Estates General, the decisions taken remain at the stage of intentions. The conclusions of the Training-Education-Employment Task Force proposed shock therapy by the end of 2022: it was against this backdrop that the Strategic Plan for National Education (PSEN) was produced by the new education authorities. With the problem of access almost solved, the strategy of the decision-makers is to focus first and foremost on the conditions for a quality school for all: resources, in particular infrastructure, maintenance, funding, programmes and their pedagogical packages, human resources, assignments, training and support.

In terms of teaching resources, the development of a continuum between primary school and collège (basic school) should make it possible not only to federate and reconcile curricular initiatives in terms of current skills, but also to integrate emerging themes and new training streams in technical and vocational education. To this end, structural and pedagogical reforms will be initiated in teacher training colleges (ENS, ENSET, ENI), through the establishment and operation of the University of Education Sciences (USE), a genuine tool for bringing together human resources in the field of training.

3.2.5. Ivory Coast

The education system in Côte d'Ivoire is organized in:
- Pre-school education is the educational stage provided by establishments open to children aged 3 to 5. Primary education lasts 6 years. It culminates in the Certificat d'Etudes Primaires Elémentaires (CEPE).
- The first cycle of secondary education lasts 4 years and leads to the Brevet d'Etude du Premier Cycle (BEPC). Access to this cycle is conditional on success in the sixième entrance examination. The second cycle of secondary education lasts three years and leads to the baccalauréat.

- Higher education is essentially under the supervision of the Ministry of Higher Education and Scientific Research.
- Technical education and vocational training are the responsibility of the Ministry of Technical Education, Vocational Training and Apprenticeship. Its mission is twofold: on the one hand, to meet the training needs of young people so that they can be integrated into working life on a long-term basis and promote their socio-professional advancement and, on the other hand, to meet the needs of businesses for qualified staff in order to improve their performance and competitiveness.

To achieve these objectives, the Ministry of Technical Education, Vocational Training and Apprenticeship is relying on two action plans: L' académie des talents (ACT) and l' école de la 2ème chance (E2C). The aim of the Talent Academy (ACT) is to train almost all the pupils who will leave basic education early, and to integrate around 90% of the ministry's graduates by 2030. The strategy implemented in the Talent Academy is divided into three key phases, namely improving access to TVET, improving the training on offer and steering the system. To this end, the Ministry, through Decree No. 2023-668 of 12 July 2023, has instituted the competency-based approach (APC) in this level of education. The APC aims to improve the link between technical and vocational training and the labour market, in order to effectively develop skills in line with companies' needs. All training based on the APC aims to achieve the following general objectives of technical and vocational training:
- To make the learner effective in his or her future role.
- To help learners integrate into working life.
- Promote the development of the worker and the deepening of professional knowledge.
- Encourage professional mobility.

All vocational and technical training provided in accordance with the APC is based on taking into account the real and current situation of the labour market. A school year comprises two semesters of 450 hours each. Each semester is made up of 30 units. One unit corresponds to 15 hours. The planning of the skills installed during each semester is carried out by the training establishments or structures using a modular approach, in accordance with the training reference framework.

The awarding of any vocational and technical training diploma or qualification through the validation of acquired experience is carried out in accordance with the requirements of the training reference framework and the assessment and certification reference framework of the diploma or qualification in question.

In 2009, the Ministry of Technical Education and Vocational Training adopted a strategic plan to reform the training system, with a focus on results-based management. The reform of technical education and vocational training covered the whole of Côte d'Ivoire, and was deployed in public and private training establishments under the Ministry's supervision. The reform of the VET system in Côte d'Ivoire aims to implement CBA in VET to improve six

areas of the training system, identified with a view to addressing different aspects of training: access to training, training provision, school-business partnership, professional integration, skills certification and system governance.

Several structures have been set up as part of the reform. The reform began in 2009, and in 2012 witnessed the creation of the Department of Pedagogy and Program Development (DPDP), the Ministry body responsible for developing, monitoring and implementing the new training programs under the CBA. In addition to the DPDP, there is a reform implementation committee headed by a permanent secretary and a *Direction générale de la formation professionnelle* was created in 2013. It assumes the essential mission of coordinating and managing all vocational training structures.

The Lycée Professionnel de la riviera, a school entirely dedicated to the HO.RE.CA professions (Professional Cookery, Hotel Techniques, Hotel Employee, Hotel Tourism). The L.P.H.A. has set itself three objectives:

- To provide young people from secondary schools with the opportunity to embrace the various specific professions in the hotel and tourism industry (INITIAL TRAINING).
- To improve technical and professional skills through continuing vocational training for people or companies who request it (CONTINUING TRAINING).
- Providing technical and professional skills through short courses to help trainees find employment quickly. (APPRENTICESHIP TRAINING - 2nd CHANCE SCHOOL).

The CBA approach adopted implied its own specificities in terms of class size, teaching materials used, assessment methods and the roles played by learners and teachers. This approach was introduced into the teaching and learning system of the Lycée Professionnel Hôtelier d'Abidjan already in the 1980s. But before arriving at this one, they also experimented other more traditional method, as the teaching by objective (PPO).

The Lycée consider that the adoption of the CBA cannot be considered truly successful, due to the high failure rate and a growing number of children dropping out of school and, above all, for the mismatch between training and the job. Moreover, the Lycée depicts a situation of the system suffering a general lack of equipment and technical facilities, a plethoric number of staff members, absence of a policy of systematic retraining of trainers as well.

3.2.6. Kenya

Kenya reformed its education system in 1985: in 1981, a government commission charged with evaluating the establishment of a university included in its recommendations to the government to reform the structure and curriculum of the country's education. Thus, it changed from 7 years of primary education to 8, from 6 years of secondary education to 4, and from a minimum of 3 years of university education to 4 (8-4-4 system).

The structure persists over the years, while the curriculum has undergone several revisions (1990, 1992, 1995 and 2003). The Kenya Institute of Curriculum Development (KICD) in 2009 and 2009 assessed national needs, drawing an unsatisfactory picture. The Kenya Vision 2030 policy document indicates the need to reform the country's education and training system to equip citizens with the knowledge, skills, attitudes and values needed to achieve collective social, economic and political aspirations.

In Kenya, Competency-Based Education and Training has gained prominence in recent years, aiming to align training programs with industry needs and enhance graduates' employability. In Kenya, educational reforms have often lacked systematic guidelines. The CBET curriculum was introduced in the TVET sub-sector in Kenya to address concerns of industry players who stated that graduates from Tertiary Institutions possessed skills that were not relevant to the job market. Secondly, it was noted that a large number of youths were dropping out of school and ending up in the informal sector where they worked as Apprentice for very low wages. In a quest to realize the objectives of vision 2030, there was need to carry out reforms in TVET training. The country also realized that majority of school graduates were not making it to the tertiary institutions hence the need to make the sector attractive, relevant, affordable to as many Youths as possible, Additionally, the sub-sector previously suffered from lack of attention from policymakers, which led to the production of graduates who did not meet industry expectations in terms of skills they acquired during training. This was evidenced by a study by the Kenya Association of Manufacturers (2017), which established that the training content in the TVET institutions did not match industry needs. The Sella Terrie survey report recommended that TVET trainers undergo industrial attachment at least every three years to upgrade their knowledge and skills. The proposed reforms included switching from knowledge-based instruction to the Competence-based Education and Training (CBET) approach.

The transition to CBET in the technical vocational education and training (TVET) sector represents a critical milestone. CBET gained prominence globally due to its focus on practical skills and competencies. The first education commission –the Ominde commission was set up in 1964 to look into education reforms in Kenya after Independence. This commission recommended a curriculum review to make it relevant for Kenyans. Emphasis was on practical subjects. This commission was followed by the Gachathi which laid emphasis on the teaching of vocational subjects in the technical, agricultural and business disciplines. Another commission was set up the Mackay commission of 1981. A notable change during this period was the conversion of technical secondary schools to technical training institutes. This distorted the progression of students to Technical institutions as the technical schools served as the pathways through which students were admitted to TVET institutions. Another commission- The Koech commission - was set up in 1998 to investigate education reforms and its recommendations included reducing examinable subjects in schools. The findings of this commission were never implemented.

By Jwan (2022) the recommendations set by these commissions were not implemented or not fully implemented: the TVET sector remained under resourced. In the meantime, school dropouts increased and many youths were unemployed. Many went into apprenticeships

which is a common phenomenon in Kenya known as the Jua Kali sector. This sector comprises of small and medium enterprises, is informal and is characterized by low wages. Jwan reports the results of a UNESCO survey (2017) which highlighted that tertiary enrollment in Kenya remained below 2 percent: many youths exit school early (before 15 years of age) and end up in the labor market. There is also evidence of a disconnect between formal education and labor market relevance, because the focus was on cognitive skills and theoretical education, at the expense of non-cognitive and practical skills.

After the introduction of the new Kenyan Constitution in 2010, another commission was established in 2012, the Odhiambo commission, aligned to the Kenya Vision 2030. Its three pillars – economic, social and political – are anchored on macro-economic stability, infrastructural development, Science, Technology and Innovation (STI); land reforms; human resource development; security and public sector reforms. This led to the promulgation of the TVET Act 2013. The promulgation of the TVET Act 2013 led to the creation of three institutions:

- TVET Authority (TVETA); which is a regulatory body responsible for registration and accreditation of programmes.
- Technical Vocational Education and training – Curriculum Development, Assessment and Certification Council (TVET - CDACC) is mandated to undertake design and development of Curricula for the training institutions' examination, assessment and competence certification. It is also mandated to make rules with respect to such examinations and competency-based assessment. It is this organisation that was also tasked with capacity building trainers in CBET
- Kenya National Qualification Framework Authority (KNQA) responsible for Alignment and Validation of Qualifications into the KNQF awarded by Foreign Universities and Qualifications awarding bodies in accordance with Section10 (1) of KNQF Regulations 2018.It also helps coordinate and harmonize education, training, assessment and quality assurance. These three institutions work with TVET training institutions such as national polytechnics, Technical training Institutes and Vocational training colleges to ensure the effective implementation of CBET.

The TVET sector in Kenya, continues Jwan, has seen a marked growth since 2012 when the Government of the day shifted its focus from University education to Technical and Vocational training. In a quest to improve the competencies of graduates, the government, through TVET CDACC, embarked on developing demand-driven CBET curricula. This process included the involvement of industry players. Sector Skills Advisory Committees (SSACs) were formed to identify sector needs and evaluate and advise on the requirements of their respective sectors. Competency-based assessment (CBA) is a crucial component of CBET, and TVET CDACC has trained 13,758 trainers to spearhead the assessment and certification process. The government has invested substantive resources in equipping public institutions with state-of-the-art training equipment and hiring additional trainers to smoothen the CBET implementation process.

Kenya's integration into the East African Community (EAC) is another reason for curriculum reform. When the five East African countries (Kenya, Uganda, Tanzania, Rwanda and Burundi) decided to create the EAC, one of the goals was to promote cooperation and integration. As we have seen, the free movement of market factors implies the harmonization of partner states' curricula to improve mutual recognition of certificates. This culminated in the development of a "Framework on the Harmonization of Curriculum, Structure and Examinations in the EAC". The standards and competencies require all partner states to reform their curricula, structure and examination systems to align with the EAC Framework.

3.2.7. Nigeria

The Nigerian education system is oriented toward competence-based education and training in order to reduce the unemployment rate. In fact, the vocational training system has remained virtually the same in content and delivery for decades, with an institution-based curriculum. As a result, curricula are outdated and unresponsive to the needs of learners and the demands of industry and the labor market. Competency-based education and training are educational approaches that have not yet been fully explored in TVET delivery in Nigeria. The terms Competency Based Education (CBE) and Competency Based Learning (CBL) are also used to promote their approach to curriculum design and to describe education that focuses on acquiring the skills needed to perform vocational tasks.

Educational reforms play a pivotal role in shaping the trajectory of a nation's workforce. Nigeria, like many other countries, has witnessed shifts in its vocational training landscape. The transition to a competency-based approach represents a significant milestone.

Since 1977, when the Federal Government of Nigeria issued the first National Policy on Education, Nigeria has favored the development of vocational education in the country. Currently governments seek to achieve technological development of Nigeria and subsequently provide solutions to the prevailing economic problems: to empower vocational education in the pursuit of the above goals and monitor its efforts in achieving quality learning, the government set up in 2004 agents of quality assurance to do the job. These agents are the National commission for Colleges of Education (NCCE), the National Board for Technical Education (NBTE) and the National Universities Commission (NUC). Each agent has provided minimum standards for use by the training institutions.

In 2005 the National Council on Education (NCE) in response to government declaration of a nine-year basic education programme approved a new curriculum structure namely: lower basic education curriculum (primaries 1-3), middle basic education curriculum (primaries 4-6), and upper basic education curriculum (JSS 1-3) with subject listings. The Nigerian Education Research and Development Council (NERDC), was mandated to re-structure the curriculum with the following objectives in view: Develop interest in science and technology; Acquire basic knowledge and skills in science and technology; Apply their scientific and technological knowledge and skills to meet the needs of the society; Take advantage of the numerous career opportunities offered by science and technology; and become prepared for further studies in science technology. Basic technology as pre-vocational education subject

at the upper basic level is designed to accomplish the following goals: inculcation of technological literacy, that is basic understanding of and capability in technology; exposure of students to the world *The Intuition* 5 of work to match their talents and interests for wise vocational choice and inculcation of positive attitudes towards work as a source of human identity, livelihood and power.

The impact of vocational education in Nigeria is enormous in socio-economic lives of the people. Vocational education (formal and non-formal) is considered the key tool for training manpower for national growth.

In 2004 the Federal Government of Nigeria adopted the home-grown National Economic Empowerment and Development Strategy (NEEDS) in response to global reforms in the social and economic context. The core elements of NEEDS are value reorientation, poverty eradication, job generation, wealth creation and using education to empower the people.

In recent decades, Nigeria has embraced CBT principles, focusing on outcomes, skills, and industry relevance. The introduction of the National Vocational Qualifications Framework (NVQF) in 2004 signaled a shift toward competency-based assessment. The NVQF emphasizes modular training, flexible pathways, and recognition of prior learning. NSQF formerly called NVQF is a system for the development, classification and recognition of skills, knowledge, understanding and competencies acquired by individuals, irrespective of where and how the training or skill was acquired. The system gives a clear statement of what the learner must know or be able to do whether the learning took place in a classroom, on-the-job, or less formally. The framework indicates the comparability of different qualifications and how one can progress from one level to another. The framework is the structure within which the National Skills Qualifications (NSQs) operate.

The framework aims at promoting lifelong learning and providing quality assurance and recognition. The NSQF promote pathways of:

- understanding occupational learning routes and qualifications and how they relate to each other.
- providing access to vocational education and training opportunities.
- making progression routes easier and clearer.
- improving career mobility.
- increasing the scope for recognition of prior learning.

Also, at the FUTA Secondary School it is adopted this method: it is chosen to enable students to progress to new skills as soon as they have demonstrated mastery of the skill at hand. It was introduced in 2015, in the of Animal Husbandry (Trade) qualification, reviewing the curriculum as initiated by the Ministry of Education. The method applied was through seminars and curriculum re-appraisal that would lead to a more competence-based curriculum.

The students' expected results are:

- To give training and impact the necessary skills to individual who shall be self-reliant economically
- To provide technical knowledge and vocational skills necessary for agricultural commercial and economic development.
- To alleviate poverty.

The result obtained are as follows:

- self-development through acquisition of small-scale business.
- poverty alleviation
- to give training and impact the necessary skills to individuals who shall be self-reliant economically.

The weakness and problems identified are:

- inadequate equipment
- Gender bias
- inadequate capital base for setting up businesses.

Other concerns remain about low interest by learners, inadequate training and retraining of staff, excessive emphasis on paper certificate/qualifications, scarcity of resource materials/textbooks. Moreover, it is important to highlight that CBC is not yet enshrined in the National Policy on Education in the country. So, creating an awareness of the potential of technical/vocational curriculum for post-secondary level admission seekers is a critical and right step in the right direction.

3.2.8. Senegal

Since gaining independence in 1960, Senegal's education system has undergone several reforms, in 1972, 1969, 1979, 1987 and most recently in 2008, aimed at restructuring its education system. These reforms have experimented with a number of approaches: the content-based approach, objective-based teaching and, most recently, the skills-based approach. The changes brought about by this latest reform are numerous and concern teaching methods and curricula in particular.

In the area of vocational training in Senegal, an important process was initiated in the 1990s. Vocational training had to be capable of ensuring the employability of all young people. After the Conference on Vocational Training (*Assises de la formation professionnelle)* organized by the OIF in Bamako in 1998, Senegal organized a National Conference on Technical Education and Vocational Training in 2001, which led to an in-depth reform of the TVET system based on the recommendations made in Bamako. At the same time, a ministry for vocational training was created in 2002: this reform was supported by French cooperation and the World Bank and led to the creation of a Vocational Training Development Fund (UNESCO 2020)

Following the national conference on TVET held in March 2001, the state of Senegal adopted a new strategy, and institutional mechanisms were provided following the establishment of the department dedicated to TVET in July 2005. The reforms were introduced in the new Ten Year Programme on Education and Training (*Programme décennal de l'éducation et de la formation*) which describes the following objectives for technical and vocational education and training: develop a qualified workforce in accordance with the needs of the labour market, developing workers, employees, technicians, supervisors and senior technical staff; promote the development of knowledge, employability, and creativity among

youth and prepare them to become the important actors in the workforce; and increase the number of people with professional and technical qualifications. The scope of the TVET system has also been expanded with the inclusion of non-formal vocational training, with the aim of setting up a standardized and tailored qualification process for such programmes. In order to improve access and the quality of TVET, the reform has specified the introduction of new teaching methods, such as: competence-based approaches in the development and implementation of curricula; and alternance training teaching methods.

In 2015, the Framework Law on Vocational and Technical Training was adopted, which formally established the CBT approach as the methodology to be applied in Senegal, have permanently enshrined the option to implement the CBT approach. The Ministry of Labor, Vocational Training, and Handicrafts (MEFPA) is responsible for managing all vocational training programs, including apprenticeships, recognition of experience, and support for apprentices.

There is not a single unified National Qualifications Framework (NQF) structure in Senegal with a comprehensive scope encompassing qualifications from all sub-systems and levels. Senegal has two sub-system qualifications frameworks: the higher education qualifications framework associated with the system Licence-Maitrise-Doctorat (LMD) and the national vocational qualifications framework (NVQF). National education qualifications such as the Certificat de fin d'études élémentaires (CFEE), the Brevet de fin d'études moyennes (BFEM) and the baccalaureate are part of the overall qualifications system, but do not integrate yet a normative national qualifications framework (NQF).

The Senegal National Vocational Qualifications Framework (NVQF) comprises qualifications at five levels, governed by two different ministries: levels V to II (including BTS) by the ministry in charge of TVET, and the highest level by the Ministry of Higher Education. The qualifications cover industry and tertiary labour market work: CAP: skilled worker certificate; BEP: Certificate of vocational education; BT: Technician certificate; BTS/DUT: Higher technician certificate/University Technology Diploma; and Engineering Diploma.

Non-formal TVET programmes are offered by different types of stakeholders. These include professional organisations in the private and public sector, Chambers of Commerce, handicraft organisations, nongovernmental organisations and religious schools, and etc. Various ministries also provide apprenticeships and TVET programmes. For example, the Ministry of Commerce, the Informal Sector, Consumption, and local products (Ministère du Commerce, du Secteur Informel, de la Consommation, de la Promotion des produits locaux) organises training programmes in Senegal and abroad. According to the Policy on the Development of Education and Training there is a significant informal TVET in Senegal. The Policy states that most youth and adults who do not have access to formal or non-formal education are trained on the job in factories or by local artisans.

3.2.9. South Africa

In South Africa, competence-based curriculum was adopted for the first time in 1998, following the acute shortage of professionals like engineers, technicians, and artisans. South Africa adopted the competence-based curriculum in a bid to change attitudes of all South Africans and equip them with employable skills to cope with challenging issues in the 21st century (Luka and Mkonongwa, n.d.). However, the competence-based curriculum is not applied in all South African schools.

During apartheid, vocational training was limited to the white population, organized according to a dual apprenticeship system, run by training institutions created at the initiative of businesses. With the end of apartheid and the universal right to education, there was a long period of transition, in which there was a lack of economic resources.

A reform of vocational education and training (TVET) was planned in the second decade of the 2000s. The country designed a reform of TVET scheduled for 2011-2016 before it was extended to 2020. In 2013, a white paper encouraged public-private partnerships (PPP) in TVET colleges and schools. It is quite striking to note that financial investment earmarked for TVET was reduced during that period (see the sub-section on TVET financing, further below). This indicates a changing political strategy (UNESCO, IIEP, IFEF, 2020).

Vocational education and training are characterized by a number of types of training and apprenticeships that have emerged little by little in the country's recent history. Rather than substituting for each other, these types of training have overlapped, making training offerings and pathways particularly complex and poorly understood.

The CBT approach is not used for the two major training programs, National Technical Education (Nated) and National Vocational Certificate (NCV), nor for state-funded higher technical education. It is used for two of the remaining programs (Unit Standard Learnership and Dual System Pilot, the latter led by German and Swiss cooperation), which target a minority of young people. In the case of the dual system pilot programs, just 13 professions are selected (UNESCO, IIEP, IFEF, 2020).

At the Unicom Secondary School it is chosen the Competence Based Approach, with the adoption of competence-based curriculum, where learners two days a week are expected to have practical training, in crop and livestock production. Unicom aims to ensure that students acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, since started the school curriculum promotes knowledge in local contexts and skills development though competence-based curriculum, while being sensitive to global imperatives.

As all subjects within the agriculture department at the school has the expectations, learners will work and obtain certain skills on farming, and if the learner does well marks will be allocated according to the learner having the ability to do what is expected. Learners will leave school after grade 12 having the skills of farm related work.

Weaknesses and problems identified in the system are:
- Lack of enough equipment for every learner.

- o Having large number of learners to be exposed to the farm activities.
- o Same learners not showing fall interest on doing the farm activities.

The number of learners who are interested a lot in the farming or agricultural subjects are boys, and that makes it as if agriculture is only meant for boys. However, educators at the school encourage at all times that girls should not fair to take agriculture and participate fully in all activities. The school need support in terms of funds to buy necessary items for the smooth and proper practical to take place.

3.2.10. Tunisia

Vocational training is one of the main components of the Tunisian national human resources training system and one of the levers for development. Since the early 90s, the national vocational training system has undergone several reforms which have resulted in the establishment of the institutional framework, the promulgation of the legal and regulatory framework governing vocational training and, since 1996, the introduction of demand-led management of the national vocational training system. The competence-based approach (CBA) was introduced in Tunisia in the same period. Presented as a response to failure and dropping out of school, the CBA was supposed to improve the achievements of the most disadvantaged pupils. The results, however, have been the subject of debate as to their real effectiveness, because of the absence of a clear and precise logic and the reduced attention paid to the economic and social dimensions.

The range of measures taken over the years has led to the restructuring of training establishments and the diversification of training courses, the development of training engineering and the adoption of a skills-based approach to identifying the skills and training needs of the productive sector, the development of training programmes and their implementation, as well as the adoption of company-based training to enhance the professional skills of learners and ensure that graduates are easily integrated into the professional world, the pedagogical training of trainers and their technical upgrading in various fields.

According to Law No. 10 of 2008, vocational training is a key component of the human resources development system and a factor in development in general. The Ministry of Vocational Training and Employment is responsible for overseeing the national vocational training system, which is made up of various bodies, such as the Agence Tunisienne de la Formation Professionnelle (ATFP) covering 13 vocational sectors, the Office National de Tourisme Tunisien (ONTT), and the Agence de Vulgarisation et de Formation Agricole (AVFA), under the Ministry of Agriculture, which manages the fisheries and agriculture sector. The State defines the general guidelines in the field of vocational training and ensures its promotion, organization and development. To this end, the State provides incentives and encouragement based on national priorities. Vocational training means initial and continuing training.

Initial training consists of the acquisition of the knowledge, skills and abilities required to perform an activity in a professional or craft sector and to enter working life. The initial training course consists of two cycles:

a) A first cycle leading to a certificate of professional aptitude (certificat d'aptitude professionnelle), open to those who have continued their studies up to the end of the ninth year of basic education (preparatory, technical and general).

b) A second cycle comprising two courses:

- a course leading to the professional technician's certificate (brevet de technicien professionnel), open to holders of the professional aptitude certificate (certificat d'aptitude professionnelle) and to those who have completed the second year of secondary education,

- a cycle leading to the professional baccalaureate, open to holders of the professional aptitude certificate and to those who have completed the second year of secondary education. Candidates with a vocational technical diploma may be authorised to take the vocational baccalaureate examination.

The aim of continuing training is to develop the professional knowledge and skills of workers in the various economic sectors, in order to keep pace with the development of techniques and production methods, to improve productivity and strengthen the competitiveness of enterprises, to guarantee workers the conditions for professional advancement, to enable them to progress up the qualification ladder and to acquire, where appropriate, the skills needed to carry out a new professional activity.

Continuing training also aims to retrain workers in order to reintegrate those who have been made redundant or to preserve the jobs of those in danger of losing them.

There are two types of continuous training

- continuous training organised by economic enterprises in order to update their staff according to their priorities and needs,
- continuing training organised by public and private training institutions, aimed at the professional advancement of workers.

Beneficiaries of the various types of continuous training are issued a certificate of participation in the training cycles. The vocational training system and all its components in the public and private sectors are subject to periodic internal and external evaluation. The purpose of this evaluation is to objectively measure the results obtained by trainees, the performance of training staff, the performance of training establishments, the vocational training system as a whole, on the basis of qualitative and quantitative indicators and criteria used at national and international level, with a view to introducing the necessary regulations and reforms to ensure that the objectives set are achieved (Law No. 2008-10 of 11 February 2008 on vocational training).

In the case of Tunisia, this competence-based approach was essentially initiated by the Canadians and then implemented through the experience of the Belgians. It comprises a whole chain of activities that CENAFFIF tried to implement with the participation of MANFORM:

- Preliminary activities: identification of companies willing to consider the management of their human resources, analysis of their needs (analysis of work situations -AST), formulation of professional profiles, which corresponds to the identification of demand.
- CBA construction activities: they concern not only the training offer, but also the implementation of quality: development of a training profile, frameworks, programmes, evaluation processes, teaching materials (guides), determination of the conditions and resources needed for implementation.

- Implementation activities: training of trainers, implementation of means to implement the CBA approach; practical use of teaching resources and evaluation grids; monitoring in training situations.

4. Methodology for a critical approach to common Competence-based curricula development

4.1 Critical profiles of the competence-based approach to be considered

The competence-based approach applied to vocational education and training, as analyzed and discussed by the participants, is not without its limitations and criticisms. The first and most frequent appeal from a pragmatic point of view is related to the complexity of implementation: the adoption of competence-based approaches requires a substantial investment in teacher training, but also the availability of workshops and a link with a lively economic environment that is not always at hand.

The design of competence-based approaches requires considerable time and resources. Educators must create customized teaching materials and provide more individualized support. There are also risks with respect to the ability to transparently evaluate acquired competences. There are also criticisms related to the difficulty of standardization and comparability from one institution to another or from one country to another. Moreover, competence-based approaches may end up favoring the most able or resource-rich students, leaving the most vulnerable ones behind.

These considerations illustrate the complexity of the debate on the adoption of the competency-based curriculum: for some critics, the widespread sponsorship of this approach is the outcome of a conservative political agenda, which reduces students to market factors, while its advocates see it as a means of emancipation from the need for unemployment. Due to this complexity, it appears necessary to analyze and reflect on the issues associated with the construction and implementation of a competence-based curriculum as part of a conscious political process.

According to Jansen (1998), the vocabulary associated with the competence approach is often too confusing, if not contradictory; others, such as Ashworth and Saxton (1990) argue that the concept of competence itself reveals serious ambiguities and inconsistencies. The debate on the subject in the 1990s has been very rich and profound: Brown (1994), for instance, traces the competence paradigm back to the perspective of extreme modernity and the reduction of knowledge to a rational-positivist model. The kind of schematism that accompanies it discourages emancipation or critical thinking.

In the same years, Hyland (1993) brings the concept of competence back into the context of general cognitive skills, defined as specific job-related tasks or specific behaviors (Ramírez Naranjo 2022). In fact, there is widespread agreement that competence-based approach is fundamentally derived from behaviorism and marked in its details by the organization of work applied in the capitalistic world: the competency-based approach, from its origin, is primarily concerned with performance. This translates into the development of curricula and assessment practices that emphasise observable and measurable behaviour.

Particularly interesting are the analyses of Jacobus (2007) who observes how the early competence-based programmes focused on competences to the detriment of the role of knowledge, reducing vocational training to a list of key competences. A further criticism is that it ignores the educational process tout court, to focus exclusively on practical and measurable outcomes. Further criticism concerns the view that it is a strictly utilitarian approach, ignoring the connections between tasks, meaning and intention, the context of performance and the effect of interpersonal and ethical aspects. In this way, education is reduced to a form of human engineering, outside any process of critical knowledge construction, in favour of an approach to knowledge purely based on the outcomes of practices, recalling the "input-output efficiency" of the "new economic realism of the 1980s" (Fagan, 1984, p. 5).

Since the criticism of Foucault, many have argued that the very method by which a competence-based curriculum is implemented implies support for the existing social and economic order. The critical theoretical perspective on competence-based education was in fact linked to Foucault's (1979) analysis of disciplinary power in modern institutions: the narrative linked to 'competence' implied a logic of connivance to the general work of disciplining, or rather self-disciplining, 'subjects', so that they were both subjugated and docile to the system, without the need to perform explicit oppression and force (Edwards 2016).

Knowledge reduced to an exercise of power ends up categorising and regulating, defining a disciplinarily validated truth. The process of assessment and credit accumulation has been identified as part of an ever-expanding surveillance of the learner. Increased surveillance, precisely from the Foucauldian perspective, does not necessarily mean being subject to the tutor or teacher's assessment: surveillance is inscribed in the very list of competences and performance criteria that are offered to students as a goal: people become a set of competences. Students know what they have to prove and can assess themselves as they move independently towards self-disciplining this goal. Within a discourse of competence, students themselves become the subjects of their own supervision.

The competency model also somehow represents a dis-organised learning process of topics, learned by election according to the pick-up mechanism as if they were unrelated objects, without any rhizomatic generation. This means that the acquisition of skills is undermined as much by a hermeneutic-methodological approach as by a process of socialization of knowledge, the importance of which transcends the processes of knowledge and intellectual knowledge. At the same time, generalisation to all educational systems of the world risks impoverishing the creativity and specificity of educational environments, leading students and professionals to be, as in the Schengen area, a factor of the market free to circulate as goods, services and capital are (Edwards 2016).

There is no doubt that analyzing and reflecting on the consequences and benefits of CBE is a necessary task before adopting it: identifying the weaknesses and pitfalls of the CBE model at the beginning of curriculum design or renovation offers an opportunity to avoid falling uncritically into these dark areas, opening instead to responsible and thoughtful decision-making.

4.2 A methodology for the creation of common competence-based curricula among Overstep partners

In September 2023, within the framework of the implementation of the first intellectual output of the Overstep project, a group of teachers identified by the various African schools involved in the partnership addressed several questions concerning the best methodology to be implemented for the creation of a competence-based curriculum. Starting from their professional experiences, the theoretical knowledge shared so far, and the exchange activities introduced during the mobility scheme, key indications and guidelines emerged as summarized below.

First, they shared their opinion on the specificity of the competence approach, trying to identify jointly what is the priority objective of this teaching-learning methodology.

The aim may include the development of know-how to prepare "qualified technicians". The emphasis of these programmes is on practical learning, the acquisition of specific technical skills and preparation for specific jobs. They are designed to meet the needs of the labor market and promote the employability of learners: basically, the goal of the competence-based approach is to develop quality vocational trainings to meet the needs of the business system and facilitate the employment of young people. In short, it is a methodology that intends to further stimulate and promote practical experience as a complement to the learning experience: unlike more traditional approaches, the competence-based approach focuses more on practical experience than on the theoretical framework.

The practical dimension, however, is geared towards enhancing the individual learner: this is why the learning process and assessment methods change. Hence the importance of investing quality time in workshop activities and practical training, creating an educational alliance between trainers and workplaces, putting the student at the center.

An analysis of the advantages and main risks or weaknesses associated with the adoption of a competence-based approach was then carried out. From the analysis of the answers concerning the main advantages, profiles of particular interest emerge, such as the opportunity to enhance the profile of "non-graduates" who are usually excluded from classical teaching procedures. The greater connection of the professional world and the better scope for integration into the world of work of those trained under this approach are also variously mentioned.

Another element noted is the increased self-confidence of learners during training. Contrary to the risks highlighted in the theoretical chapters, the Overstep partners perceive an increase in the critical capacity and autonomy of the participants in the competence-based pathways. In fact, according to the teachers, know-how is never separated from knowing how-to-be: working for competences implies not only an acquisition of technical competences, but also higher skills in communication and collaboration capacity of the learners, critical thinking and problem solving, as well as creativity (although there is no unanimity on this).

On the side of the system's weaknesses, the partners often cited the complexity for teachers of dealing with the different profiles of incoming students: it is not easy to align theory and practice from a pedagogical point of view, requiring a special effort on the part of the teaching staff. In addition, deficiencies in teacher training are often mentioned, the higher costs of training (which often takes place only in the classroom, without the support of adequate laboratories), but also the lack of receptiveness and preparation by stakeholders of the labour market who do not enter the educational pact with sufficient awareness.

Assessment and certification paths are also considered to be poorly structured or defective. Excessive conformity to regional and world standards is also mentioned as a threat.

The partnership then agreed to define the process of designing a competence-based curriculum in four steps: assess the needs and competences required, with the related identification of skills, knowledge and attitudes and set learning objectives and outcomes of the curriculum and of each competence; organize methods and learning experiences; define methods to integrate assessment and adjustments.

From the point of view of mapping competences, as well as their knowledge and skill content, with regard to a vocational training curriculum, the vast majority of the respondents consider it important to develop a dialogue with entrepreneurs and craftsmen in the local market or with sector experts of an academic relevance. It also seems important to involve high-performing students and graduates already in employment in this dialogue. Finally, other methods to be considered are exchanges with educators from other schools, online research (textbooks and articles) and collaboration with non-governmental institutions. In particular, the identification of the skills, knowledge and attitudes needed for each competency in the curriculum should take place through capacity-building programmes for staff, exchanges with professionals and experts in the competence-based method.

From the point of view of content, participants mostly affirm that there are some key competences that cannot be missing in a good CBC in VET, such as entrepreneurship, followed closely by digital competence. Widely cited as preliminary to any other knowledge are literacy competence, mathematical competence and competence in science, technology and engineering, to which are added personal, social and learning to learn competence and cultural awareness and expression competence, as well. Furthermore, according to the partners, a good curriculum should integrate several transversal perspectives in each phase of the curriculum and learning unit, in particular those of gender equity, environmental sustainability and climate change, diversity and inclusion and, to a lesser extent, also that of global inequalities.

These reactions are even more significant given the most frequent vulnerabilities reported by teachers among students in partnership schools, which include extreme poverty for more than a third of the respondents; and to a lesser but recurring extent, learning disabilities, physical illnesses or disabilities, foreign students with little knowledge of local languages, a physical illness or disadvantage; violence suffered (physical, psychological, sexual, etc.) or experienced in the family context; early motherhood. The most frequently cited vulnerability among students in the contexts concerned is widespread illiteracy.

The role played by the teacher in a competence-based classroom is strategic: he or she is not only in charge of planning and organising lessons, but also of facilitating learning processes (cognitive, metacognitive and socio-affective skills), adapting methods and contents to the students' background and aspirations. From a methodological point of view, the most effective pedagogical strategies and teaching techniques to be employed in the competence-based approach are considered to be the Learner-centred approach, the Constructivist approach, the Integrative approach, Active learning, Cooperative learning and Work Based Learning.

Furthermore, for effective CBC in VET, an internship period occupying at least 30% of the total number of hours, up to a maximum of 50%, is necessary.

Certainly, the workshop facilities should be adapted to the curricular objectives: the school environment should be well equipped in terms of classrooms, laboratories or spaces for practical activities, IT equipment: the participants consider it important to have sufficiently spacious classrooms and well-equipped laboratories, with sufficient tools for each learner, but above all a good learner/teacher ratio. Almost half of the workshop participants believe that their school is not equipped with these minimum elements.

Finally, from the point of view of assessing the acquisition of skills by students, assessment should be based on practical tests, supplemented by the more traditional written tests or essays. Personal project, role play, self-assessment also seems to be considered good assessment tools. Less than one fifth of the participants, on the other hand, would use oral questions, Class Debate, Ppt presentation. From the point of view of attendance, one should think of an ongoing assessment at least once or twice a month per pupil.

On the other hand, the evaluation of the traineeship should be based on periodic monitoring visits to workplaces; reports; practical evaluation of the traineeship at the beginning of each session; daily debriefing.

Finally, in addition to evaluating the acquisition of skills by the individual, participants consider it essential to also establish a baseline and indicators for monitoring the effectiveness of the curriculum as designed, so that it can be readjusted and improved. Among the tools mentioned are the monitoring of the (teaching and learning) objective plan and timetable; the collection of data on the results of final examinations at one's own institution and those of the region/country; the collection of data on the students' job placement (placement time, average entry salary, …) and employer satisfaction.

4.3 Examples of transnational competences defined within the Overstep project partnership.

The exercise of exchanging among the partnership members the richness and complexity of the different national contexts became evident in this last phase of the realization of the present output. It was complex to map and compare the various vocational training options between countries which come across each other at different moments in their journey towards standardization of national qualification systems. It certainly helped to refer to the ongoing *ACQF - African Continental Qualification Framework initiatives*, launched recently, in 2019.

The call for the establishment of a continental qualifications framework for Africa was formulated in the African Union's (AU's) 'First Ten-Year Implementation Plan of Agenda 2063 (2014–2023)', the Protocol to the Treaty Establishing the African Economic Community relating to Free Movement of Persons, Right of Residence and Right of Establishment (AU Free Movement Protocol), and the Continental Education Strategy for Africa 2016–2025 (CESA 16–25) explicitly include the continental qualifications framework among their goals. Moreover, the Agreement establishing the African Continental Free Trade Area (AfCFTA) in its Protocol on Trade in Services, sets the frame for mutual recognition of education (see https://acqf.africa/about/overview).

Among other objectives, the initiative aims to contribute to comparability, quality, and transparency of qualifications, facilitate recognition of diplomas and certificates, and support learners' mobility and promote cooperation, referencing between qualifications frameworks (national and regional) in Africa and worldwide.

On the European side, to enhance the intercontinental dialogue foreseen in Ovestep intrinsic logic, the database used to complete the exercise is that of *ESCO - European Skills, Competences, Qualifications and Occupations*, in which is stored the European multilingual classification of skills, competences, qualifications and occupations. ESCO works like a dictionary, describing, identifying and classifying professional occupations and skills relevant for the EU labour market and education and training area and systematically showing the relations between those occupations and skills (see https://ec.europa.eu/social/main.jsp?catId=1326&langId=en).

Starting from the workshop pathway of theoretical and contextual analysis reviewed in this handbook, participants focused on several job profiles pertaining to the four economic fields targeted by the action: Agriculture, Food Processing, Tourism and Hotellerie. They designed a competence-training unit that could be considered standard in all the countries in partnership: on this basis, it should be easier to establish a common ground for the recognition of its certification in an intra-continental context. This methodological exercise was based on the experience of each school and on the information reviewed in the ACQF and ESCO portals; moreover, they considered essential to include field research-based on interviewing key stakeholders in their local contexts. In particular, the partners, starting from the methodology developed during the workshops, questioned market players, experts from the academic world and recently graduated young workers.

Of the interviews collected, 28 were subjected to detailed analysis, including 7 with teachers from partnership training schools, 3 with academic researchers, 7 with business experts or appointees in public positions relevant to the business sector, 3 with recruiters, and 8 with students who had graduated and recently entered the workforce. The primary objective of interviews was to extract relevant insights, supported by significant quotes from the interviewees, to highlight common features between high different contexts of origin. The analysis focuses on identifying necessary competences and strategies, offering suggestions for programs and curricula, and providing recommendations for building partnerships within each sector.

The analysis of interviews reveals several common themes and sector-specific insights. A consistent emphasis on technological integration across all sectors highlights the necessity for curricula that include modern industry tools and practices. Competency-based training is considered crucial, underlining the importance of practical skills and hands-on experience. Furthermore, fostering strong partnerships between educational institutions and industries is vital to ensure that training programs remain relevant and aligned with market needs.

The HO.RE.CA. sector stresses the importance of possessing a diverse skill set that includes culinary, customer service, and IT skills. Similarly, the tourism sector requires comprehensive industry knowledge, effective communication skills, and technological proficiency, with significant trends toward responsibility and eco-tourism. The development

potential of the tourism and related sectors of the restaurant and hospitality industry is seen in all the relevant contexts to be on the rise: however, a training gap still emerges so that many insiders could improve their level of training.

Those, on the other hand, who have had the opportunity to study, feel that they have had sufficient internship experience that has allowed them a not particularly burdensome entry into the world of work:

Farah Neklamis a *recent graduated* from Benin, listed the diverse skill set required in the hospitality industry, which includes reception, cooking, and housekeeping: she highlighted the importance of internships, which play a crucial role in skill development and job readiness:

> "
> «Professional internships have enabled me to deepen the skills acquired during my school training. With my internships, I'm directly admitted to the position on my own»
> Farah explained.
> "

> "
> «The internship during vocational training is very beneficial for the learner, because it highlights the skills acquired at school. During the course, I learned how to set up a table properly, how to make cocktails and how to welcome customers. But that's not enough, because you never stop learning (…) In my first job, I was faced with several challenges. I lacked organization in my work. I acquired these skills thanks to my floor manager, and the process took just 2 months. Vocational schools need to send their students out to put into practice what they do in theory. And these will see their skills, which will open the doors to hiring» Jean-Baptiste said.
> "

Minlin Koffi Jean-Baptiste, a *recent graduate* from Cote d'Ivoire, shared how her training on the job was crucial.

It emerges how in a few months' graduates became self-sufficient, often with the guidance of company mentors who introduced them to specific working methods and new technologies, thus proving flexible and open to new learning.

Addressing these key areas will enable educational institutions to better prepare students for the evolving demands of these sectors, ensuring they possess the necessary skills and knowledge to succeed. By integrating modern technologies, emphasizing practical training, and building robust industry partnerships, educational programs can remain relevant and effective in meeting market demands and fostering successful career paths for graduates.

"The catering sector is also developing with the advent of new technologies, where food is sold online, delivered by a mobile catering service. Large companies in these sectors are more demanding in terms of qualifications and experience when recruiting their staff. The

major obstacle is lack of experience" stated Kouassi Raymond, Guidance Inspector, in charge of Vocational Guidance at the National Youth Employment Agency (AEJ) in Ivory Coast, "Many employers prefer to hire people with 3 to 5 years' experience to ensure that their company has a secure future. They don't trust students and young people fresh out of training schools. The level of training is quite good (...) however, training is mainly theoretical and often not adapted to the job market. It is not sufficiently alternated with years of work experience in companies. What's more, our vocational training establishments lack the necessary training infrastructure and equipment".

Anyway, general improvements to be introduced in curricula include a wider knowledge and practice of foreign languages, as well as advertising and social media management. And entrepreneurial skills are key to succeed, as stated by the Owner of a tourism agency in Cape Verde. At this purpose, **Dieme Youssoupha** - *President of the Fédération des Cuisiniers du Sénégal* - FENACS - and of the Académie Bocuse d'or Sénégal – proposed "to adapt programs, we need to review teaching standards. Then, in partnership with professionals, we need to set up a work-study system, integrating the players into the teaching process". Recent graduates also ask for protagonism in this process asking for forum between schools and companies, in which let their voices to be heard as well.

Among others, **Ndoye Baba** - former director of tourism regulations and former director of ENFHT Dakar -referred how tourism trends are progressively including community-based tourism and environmental sustainability. Today, the trend is for tourists to have real experiences, added **Lo Serigne**, teacher at ENFHT: travelers want to get in touch with and discover the everyday life of the country they are visiting on vacation. The main challenges at a local level are, on the one hand, to ensure that tourism and hotel staff are properly trained and taken care of (in terms of salary and social benefits) and, on the other hand, to take into account the environmental dimension, in particular the management of plastic. Ecology and sustainable development are also essential factors in the development of tourism.

In the tourism sector, a teacher at Unicom in South Africa emphasized the importance of knowledge in the tourism industry, including geography, history, culture, and communication skills. He highlighted the inclusion of virtual and augmented reality skills and mobile app development in the curriculum.

Finally, it seems interesting to report how **Ndoye Baba** stressed the importance of international "recognition of qualifications" which "enables student mobility. The advantages include the training of qualified personnel capable of adapting to any environment, and the development of service quality. The challenges are to raise the level of services and combat the exodus of young people to Europe."

In Agriculture, core competencies and skills are technical skills, but also soft skills such as resilience and problem-solving. Cross-functional skills are indispensable, such as a holistic understanding, efficient collaboration, adaptability to change, innovation, enhanced decision-making, and value creation. Professionals with these competencies are considered better equipped to navigate industry complexities and drive sustainable, profitable operations. However, it emerges how it is quite challenging to find individuals with the right skills, as many in the sector are inadequately trained. The local job markets are competency-driven, with a scarcity of technically skilled farmhands. Engaging in training experienced

but illiterate farmers, along with leveraging technological advancements and international work experiences, can increase productivity and facilitate the introduction of new innovations. While agricultural roles are available, young graduates and school leavers often seek opportunities abroad. Training and qualification programs are qualitative and aligned with international best practices, with high demand for skills like business planning, agro-processing technology, marketing, and market analysis.

Required competencies for a competitive agriculture include soil research and conservation facing climate changes, controlling crop cycles, and pest management to reduce ecological impact, stated **Epoi Atangana Serge Claude**, *teacher* from Cameroon. It is considered essential, at the same time, to know how to draft projects, apply for funding, and participate in producers' federations allowing small agricultural producers to defend their bargaining

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> By **Ibukunoluwa Oyinloye**, *senior recruiter in Nigeria*, to align training efforts with local employment markets, the following recommendations are to be made: to explore more partnerships; focus on transferable skills; incorporate work-based learning through internships, apprenticeships, and project-based learning for hands-on experience; employ technology and digital resources; improve transnational recognition of VET (Vocational Education and Training) qualifications in order to ensure alignment with industry requirements, reduce skills mismatches, and improve productivity, opening doors to new markets and fostering economic cooperation.
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> The food processing sector is considered highly strategic for the local economic growth, to diversify revenues and gain independence at international level.
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power, while also enhancing agricultural traditions from different cultures. All of this in the middle of a transition from subsistence farming to semi-industrial or industrial agriculture, including product processing, presents a significant challenge.

Ndengue Laurent Parfait, a *ministerial expert* from Cameroon, referred of the importance of food processing in reducing imports and transitioning to a market tailored to small production units, requiring control over the entire process from raw material sourcing to marketing. Curricula should be built holistically in wide partnerships, highlighted Unicom's teachers, and updates every three years. Internationalizing curricula could improve local opportunities for students and assessment standards. Trends and challenges in agriculture include the increasing adoption of technologies, skills shortages in machinery management and maintenance, and safety concerns. Key competencies include understanding machinery and equipment, technical skills, physical ability, robotics, and data analysis. Soft skills are also crucial for enhancing safety and communication. Training should emphasize environmentally friendly practices, with schools collaborating with the industrial sector to update curricula to reflect the latest innovations. Innovative solutions,

such as robotics, drones, sustainable and organic agricultural practices, and addressing climate change challenges through social responsibility, are vital. Key competencies include technical skills, communication, time management, attention to detail, problem-solving, and data management skills.

Food processing's set of competences includes a comprehensive understanding of manufacturing processes, attention to detail, and adaptability to increasing automation, alongside a growing demand for organic products, as well summarized by Unicom's teachers. Moreover, they pointed out the increasing demand for organic products, which necessitates updates in training programs to include organic food processing techniques.

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Food processing is important for reducing imports. This will enable the transition from an "off-the-shelf" market to a market for processed products, diversified and adapted to the specific requirements of small production units, despite the technical and technological improvements that will be made in the field of processing to design food products that meet consumer expectations. All these elements require a high degree of control over the process, from raw material sourcing to transformation into finished products and their marketing" said **Djouffa Kouabitheu Marivaux Lesage** - *PhD in Engineering with a specialization in Food Science and Nutrition from Cameroon*

The Food Production Manufacturing Agent must possess a set of key skills and qualities to succeed in this field. A thorough understanding of food manufacturing processes and the ability to strictly follow manufacturing instructions are crucial. The job demands vigilance and attention to detail, especially when handling food products, requiring precision in manual gestures. As agri-food production becomes increasingly automated, individuals need to be prepared for the evolution of its effects on employment and worker training. The challenge today is to have strong institutions that recognize and value local skills in wealth creation, in order to boost the local economy.

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Dr. Muyiwa Adegbenro, an *Associate Professor from Nigeria*, highlighted the need for key skills in understanding food manufacturing processes and following instructions, noting the impact of automation on employment and training: «Training of students on the new trends as to be able to adopt new technologies after leaving school. More practical classes/courses should be incorporated to school curriculum. Professionals and stakeholders should also trainings within and outside the country to develop more skills.

It is that new technologies should be introduced in schools and colleges. Also, more training centers should be established. Vocational training schools should collaborate with the University Training and re-training their students and staff members in the area of new technology/discovery from research studies.

Academia and industry have a lot to do together. All research studies done in our universities should be transfer to industry as the final consumers. Academia should forget the issue of publications alone from their research studies, rather should be ready to collaborate with industries. Industry also should be willing to fund research and whatever the test results can be adopted by the industries».

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Ruth Toluwalase Fatoye, a recent graduate from Nigeria, underscored the necessity for strong institutions that value food processing skills and prepare for technological advancements due to automation.

The results of the analysis and concerted work among Overstep partnership members to define core curricular units, based on the competency-based approach, in the target areas are reported below.

OCCUPATIONAL PROFILE: COOK

Cooks are culinary operatives who are able to prepare and present food, normally in domestic and institutional environments.

a. **COMPETENCE: Maintain a safe, hygienic and secure working environment.**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
National safety and hygiene regulations, food hygiene standards and procedures to avoid contamination of ingredients; food storage best practices; good practices for cleaning kitchen, pantry and utensils; waste management.	Preventing accidents; using tools and knives correctly; selecting raw ingredients.	Diligence, Teamwork.	Preserve health, hygiene, safety and security in the workplace in accordance with relevant regulations.	Hygiene and sanitation Safety and security Raw material management Job planning and organisation.	Written test about theoretical knowledge on hygiene, security and safety procedures and norms. Oral test and simulations concerning cleaning, disinfection and waste management procedures in the kitchen.

b. **COMPETENCE: Create new recipes**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
Ingredients and culinary techniques. Elements of food science and nutrition.	To apply food hygiene norms. to apply techniques of	Curiosity, Flexibility, Feedback responsivity.	Combine innovative ideas to come up with new recipes and preparations	Research, finding and studying traditional and innovative recipes	Written test about theoretical knowledge and ability to write a recipe.

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
Recipes of regional, national and international gastronomic culture. Techniques for garnishing food.	processing of raw materials. To cook food and prepare dough. to combine flavors. to write a recipe.		to extend the product range of a company. Make modifications to recipes to enhance taste, reach productivity goals, develop and improve products.	Experimentation and development, creating variants. Presentation and style, culinary aesthetics. Recipe writing with clear and concise instructions.	Practical cooking test (assessment criteria include creativity in the use of ingredients, ability in cooking techniques and in problem solving).

c. COMPETENCE: Instruct kitchen personnel

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
Advanced cooking techniques; personnel management; work organisation; menu creation and development.	Assertive communication, management of economic, material, human and time resources.	Leadership, Problem solving, Determination, Teamwork, Outcome orientation	Give instructions to the kitchen staff by guiding and teaching them and by providing them support before, during and after the service.	Advanced cooking techniques. Leadership and personnel management. Organization and planning.	Oral test about theoretical knowledge and hypothetical resource management, organization and planning Role play test.

OCCUPATIONAL PROFILE: TOURISM PRODUCT DEVELOPER

Tourism product managers analyze the market, research potential offers, develop products, plan and organize the distribution and marketing processes.

a. COMPETENCE: Assess an area as a tourist destination.

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
tourism industry trends, market dynamics, and customer preferences; local culture, history, geography, and natural resources; relevant regulations, policies, and sustainability practices.	data-based analysis to measure tourism potential; communication and stakeholders mapping; marketing.	Cultural sensitivity, Customer orientation	Evaluate an area by analyzing its typology, characteristics and its application as a tourist resource.	Tourism assessment: data collection and analysis. Stakeholder engagement. Environmental Impact Assessment. Marketing.	Personal project presentation, realized as part of the internship. Oral test concerning knowledge acquired and case management simulation.

b. **COMPETENCE: Engage local communities in the management of natural protected areas**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
local community dynamics, cultural practices, historical context, participatory approaches, sustainable development.	Effective communication, active listening, conflict resolution and negotiation, facilitation of community meetings and workshops	Cultural Sensitivity; Inclusivity; Equity.	Build a relationship with the local community at the destination to minimize conflicts by supporting the economic growth of local tourism businesses and respecting local traditional practices.	Participatory Approaches and Tools. Communication and Outreach Strategies. Capacity Building. Case Studies and Best Practices.	Presenting community engagement plans based on the internship experience. Oral test about best practices and Role-Playing.

c. **COMPETENCE: Develop tourism products**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT

market trends, local culture, heritage and natural attractions, awareness about logistics constraints, sustainable tourism practices	designing itineraries, collaborating with local suppliers and institutions, creating website and social media contents, budget creation.	Entrepreneurship; Cultural sensitivity, Customer orientation	Develop and promote tourism products, activities, services and package deals.	Market research and analysis. Touristic product design. Developing partnerships. Marketing and social media management. Sustainable Tourism.	Written essay about market analysis and website research of useful data. Presentation of a touristic product elaborated during the internship.

OCCUPATIONAL PROFILE: OPERATOR OF AGRO-FOOD TRANSFORMATIONS

Operator of agro-food transformations is a professional role within the agro-food industry. This occupation involves various tasks related to processing and transforming agricultural products into food items.

a. COMPETENCE: Follow hygienic procedures during food processing

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
food safety regulations and guidelines, knowledge of microbiological hazards and foodborne illnesses; proper temperature control of food; cross-contamination risks; sanitization procedures.	to maintain personal hygiene; to sanitize food preparation surfaces and equipment, identify potential food safety risks.	Attention to detail, sense of responsibility.	Ensure a clean working space according to hygienic standards in the food processing industry.	Introduction to food safety and hygiene. Microbiological hazards and foodborne illnesses. Personal Hygiene and Protective Measures. Risk Assessment and Mitigation.	Oral test about food safety regulations and good practices. Practical assessments of food handling techniques.

b. COMPETENCE: Operating food processing machinery

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
types of food processing machineries, safety protocols specific to each machine, standard equipment cleaning and maintenance processes.	to set up and calibrate machineries, to operate machinery efficiently, to monitor machine performance, to operate preventive maintenance.	Attention to detail, sense of responsibility, caution.	Operating and tending machinery for the processing of food and other organic materials and for the manufacture of food and related products.	Introduction to Food Processing Machineries. Machine Setup and Calibration. Preventive Maintenance. Common issues and their solutions. Emergency shutdown procedures.	Practical assessments of operating specific machinery in a controlled environment. Theoretical assessment.

c. COMPETENCE: exerting quality control to processing food.

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
food safety regulations and quality standards, food processing techniques and equipment.	to inspect raw materials and finished products; to use testing equipment; to identify deviations from quality standards during and at the end of the process.	Attention to detail and precision.	Ensure the quality of all factors involved in a food production process.	The importance of quality control in food processing. Food safety and food quality standards. Techniques and tools. Assessing critical control points Reporting deviations.	Written test with closed-ended questions. Presentation of a personal project about the quality chain of a specific product followed during the traineeship.

OCCUPATIONAL PROFILE: CROP PRODUCTION WORKER

Crop production workers carry out practical activities and assist in the production of agronomical crops.

a. COMPETENCE: Prepare planting area

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
planting methods; plant species and growth parameters; soil types; weather effects; safe working practices, organic farming, and synergies between agricultural products.	to prepare planting sites according to plantations; to apply additives based on site conditions; marking out plant positions, installation of atmospheric protection facilities.	Entrepreneurship; orientation towards analysis and synthesis.	Prepare planting area and soil for planting by for example fertilizing, mulching by hand or using mechanical tools or machinery. Prepare seeds and plants for sowing and planting by ensuring the quality of seed and plants. Sow and plant by hand, using mechanical tools or machinery and in accordance with national legislation.	Identify planting sites, methods, and plant species from site plans. Implement safe working practices to manage risks. Select materials, tools, and equipment for plant establishment. Prepare planting sites according to site plans. Prepare and apply organic additives as needed. Mark out plant positions.	Practical test: planting techniques, site preparation, and post-planting care. Written Exams or Oral Assessments: case studies.

b. **COMPETENCE: Operate agricultural machinery.**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT
Understanding of different types of agricultural machinery; safety protocols and regulations related to machinery operation, maintenance procedures and troubleshooting techniques.	To operate various agricultural machines; to perform routine maintenance tasks.	Safety-orientation; Adaptation to new technologies and practices.	Operate motorized agricultural equipment including tractors, balers, sprayers, ploughs, mowers, combines, earthmoving equipment, trucks, and irrigation equipment.	Identify different types of agricultural machinery and their functions. Safe procedures operating tractors, harvesters, and other machinery efficiently. Basic maintenance tasks (e.g., checking fluid levels, cleaning filters). Understand the impact of machinery use on soil and ecosystems.	Practical assessments. Oral test about different types of agricultural machinery. Basic maintenance tasks and Impact of machinery use on soil and ecosystems.

c. **COMPETENCE: Store products**

KNOWLEDGE	SKILLS	ATTITUDES	LEARNING OUTCOMES	CURRICULUM LEARNING UNIT	STANDARD ASSESSMENT

storage elements (temperature, heating, air conditioning, light exposure); product shelf life and expiration dates; inventory systems and its management; safety protocols.	to organize products, to use storage equipment, as shelves or refrigerators, and machines; to label and document storage processes.	Accuracy, Attention to detail.	Keep products in a safe place to maintain quality. Ensure the stock facilities meet hygiene standards, regulating temperature, heating, ac of storage facilities.	Storage requirements for different product categories. Apply proper labeling and implement inventory control practices. Monitor product quality during storage.	Practical test: storage inspection simulation. Oral Assessments about norms and practices.

As mentioned in section 4.2, the Overstep partnership, in order to reduce the risk of a skills-based approach based on the creation of pure factors of production, flexible to the needs of the market, thinks it is essential to integrate into the curriculum a number of transversal perspectives that have a sense of ethical responsibility for the work-based economic dimension. Two important strands of mainstreaming, that of gender and that of ecological sustainability, were considered as examples.

If a classic definition of curriculum comes from Lawton (1975) who argued that curriculum is "essentially a selection from the culture of society", rather than what is merely taught in classrooms: curriculum is formed, and informed, by social, ethical and cultural values, necessary to prepare citizens, before than learners, for future life. Transversal themes are known as topics that are considered core topics impacting the quality of life in society by contributing to the whole-citizen education. It shapes people's attitudes and values, and thus support social development. It is desirable to work these perspectives together with other groups and social institutions, as a complex educational community. They deal with topics such as social justice, education for peace, health education, tolerance, diverse societies, gender equality/equity, environmental sustainability, et cetera. Mainstreaming such themes within the curriculum influences the institutional policy, programs' contents and methodology.

For instance, gender mainstreaming can deliver contents referred to the social attributes and opportunities associated with being male and female, and other non-binary gender identity, and to the relationships between gendered individuals (cfr. Elwood 2016; Nurhaeni et al. 2017; alii). These attributes, opportunities and relationships are socially constructed and are learned: they are context/ time-specific and changeable. In most societies there are inequalities between genders in what is expected, allowed and valued in individuals, as well as in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities.

Gender equity is the process of being fair to gendered individuals. To ensure fairness, strategies and measures must often be available to compensate for women's historical and social disadvantages that prevent women and men from otherwise operating on a level playing field. Gender equality implies that access to rights or opportunities is unaffected by gender. It's not only women who are affected by gender inequality—all genders are impacted, including men, trans and gender-diverse people. This impacts children and families, and people of all ages and backgrounds. Equality in gender does not mean that women and men will have or need the exact same resources, but that women's, men's, trans

people's and gender-diverse people's rights, responsibilities and opportunities will not depend on their assigned gender at birth. Gender equality is a fundamental human right and a necessary foundation for a peaceful, prosperous and sustainable world. It includes empowering girls and promoting respect for all gender identities as well.

Gender mainstreaming in VET is a strategy to integrate gender perspective in all stages of the development and implementation of education policies for achieving gender equality. It includes Gender-sensitive leadership and policy framework in the schools' regulations at national, regional, local level; Gender-perspective trained teaching and non-teaching staff; Disaggregated data and statistics; Gender-responsive infra structures; Civil society (particularly students' families) involvement in gender equity-equality programs.

Whether subject-based curriculum is nationally or locally determined, around and within these syllabi, education can be gender inclusive, showing historical perspective in gender discrimination in each subject or making visible women's contribution to a discipline. It is important to avoid segregation in subjects: for too much time sciences, mathematics and technologies have been considered as appropriate spheres of learning mostly for males, whereas subjects related to family care, humanities and arts are considered more relevant and appropriate for girls. Show how gender equality is a key to economic development and how discrimination in access to economic factors, including education and financial credit, can affect all society.

Moreover, it is important to highlight not only content measures, but also methodology strategies which allow to mainstream gender equality in VET; for example, paying care to the use of non-sexist and inclusive language; introducing open debates, developing a critical thinking for identifying gender stereotypes, prejudices, biases and distortions; stigmatizing the male dominant culture in many workplaces; refusing hegemonic patriarchal practices, addressing topics like Sex and Gender Based Violence or talking openly about positive masculinity.

Another horizontal perspective to be integrating in VET, and particularly in such vocational fields like Agriculture and Tourism, refers to Climate Change (cfr. Willott, 2009; Unesco – Unevoc 2015 and 2021)., considered as the long-term changes in the Earth's climate that are warming the atmosphere, oceans, and land. Climate change is affecting the balance of ecosystems that support life and biodiversity and impacting health. It also causes more extreme weather events, such as more intense and/or frequent hurricanes, floods, heat waves, and droughts, and leads to sea level rise and coastal erosion as a result of ocean warming, melting of glaciers, and loss of ice sheets.

Adaptation, in the simplest terms, refers to the actions that countries will need to take to respond to the impacts of climate change that are already happening, while at the same time preparing for future impacts. It refers to changes in processes, practices and structures that can reduce our vulnerability to climate change impacts, such as sea level rise or food insecurity. Mitigation refers to efforts to reduce or prevent emission of greenhouse gases. Mitigation can mean using new technologies and renewable energies, making older equipment more energy-efficient, or changing management practices or consumer behavior.

Global climate change presents many challenges on the road to sustainable development: responses require a transition to greener economies, impacting the nature of occupations and increasing the demand for new skills. Climate-resilient development means ensuring

that people, communities, businesses and other organizations are able to cope with current climate variability as well as adapt to future climate change, preserving development gains and minimizing damage. Climate-resilient development is about adding consideration of climate impacts and opportunities to development decision-making to improve development outcomes, rather than implementing development activities in a completely new way.

This transition from high-to-low carbon intensive production and the transition to resilient urbanistic, agricultural, tourism models will involve a redistribution of labor that demands adequate preparation and must enable people to take this up. CC mitigation and adaptation goals, when translated into VET education, typically progress by mainstreaming awareness about policies and strategies for climate change education: capacity building for teachers and students; promoting curriculum integration of climate-related issues and possible technical solution or actions to be taken; developing teaching and training materials for educators; building resilient/sustainable facilities; looking for institutional and community engagement.

5. CONCLUSIONS

The handbook "Competence-based Curricula Development: A Framework" encapsulates the collaborative efforts of the Overstep project, aimed at stimulating a transcontinental dialogue between VET providers. Through a series of meticulously planned activities, including a fifteen-day mobility scheme for African and European VET staff, comprehensive context analyses, and focused workshops, the project has successfully fostered mutual understanding and knowledge exchange.

The core of this project was the development and standardization of competence-based curricula units, tailored to meet the dynamic needs of learners, educators, and the labor market. By emphasizing the practical application of skills and knowledge, this learner-centered approach has shown its adaptability and relevance across diverse educational contexts. The mapping of transnational competences, organization of specific topics, and establishment of performance and evaluation criteria have collectively ensured the robustness and flexibility of the developed curricula.

The handbook has been structured into three chapters, each addressing critical aspects of competence-based learning. The first chapter provides a thorough definition and analysis of competence-based education, highlighting its strengths and challenges. The second chapter bridges the gap between local labor market demands and vocational training in African contexts, presenting a detailed state-of-the-art analysis of the competence-based approach in the AU countries involved in the project. The final chapter offers a methodological guide for developing curricula for four distinct job profiles, detailing Units of Competence.

This framework is not only a product of rigorous academic research and pedagogic expertise but also a testament to the project's commitment to enhancing educational practices globally. By promoting the "translatability" of learning units across national borders, the handbook supports the core values of the Erasmus Plus program, fostering learning mobility and international collaboration.

In conclusion, the Overstep project has made significant strides in bridging historical, moral, and material divides between continents, creating a common educational language and enhancing local specificities. The handbook stands as a vital resource for disseminating good practices and facilitating dialogue between diverse educational contexts, ultimately contributing to the global advancement of competence-based vocational education and training.

In 'The Thinking Hand', one of his masterworks, architect and thinker Juhani Pallasmaa emphasizes how the acquisition of a skill is not primarily based on verbal instruction, but rather on the direct transfer of the ability from the teacher's muscles to those of the learner through an act of sensory perception and bodily mimesis. Certainly, Pallasmaa focuses on a phenomenology of the artistic event, of the architectural event. But that way to recognize to the hand a conscious movement of its own, overcoming any dichotomy of the physical and the mental, brings us into the heart of a craft idea of living while making, feeling while building, thinking while purely acting. Our hand, our limbs have a crafts wisdom, they have an instinct that materializes thought and dematerializes matter: every movement of the hand, in all its work, carries with it the element of thought, reports Pallasmaa quoting Heidegger.

This premise remains only apparently remote from the interest of this manual: if, in fact, reviewing the main criticisms to the adoption of the competence approach in vocational training, it had emerged how the same ended up caging the learner in a merely technical and self-disciplinary knowledge, having come to the conclusion of this intercontinental group work, it seems to be possible to affirm that such a risk, however existing, is in the present day largely reduced.

What the competence approach tries to do is to restore to the learning processes their relational nature, no longer caged in the written word, but once again in a rhizomatic movement, ready to adapt to the rhizomatic succession of the world. More substantial is undoubtedly the risk that dictating the learning agenda is not so much the love of knowledge as the capitalist dynamic that reduces people to factors of production and consumption. In this way, competence-based learning risks becoming an arid mechanism for reducing the human.

This is why the alliance of the educating community made up of students, families, and teachers with the world of work appears fundamental: only in this perspective can knowledge be removed from the prevailing technocracy and the modern logic of domination, and instead return to speaking the language of society as a body without organs.

Based on this premise, Overstep's workshops around the first intellectual output led to a series of results concerning the competency-based curriculum: first of all, the teachers involved clearly emphasized the importance of enhancing in vocational training not only hard skills, but also key skills that feed the person before the worker, and soft skills. At the same time, the ethical part, of exercising critical thinking against the dominant culture, is placed at the center in the adoption of mainstreaming perspectives, such as gender or climate change perspectives.

The construction of a model of shared competences, based on the knowledge of the respective educational models, is intended as a wish for greater dialogue between the different African and European educational realities: it is certain, in fact, that the

competences as defined, are not rigidly set, but maintain the capacity to adapt to the specific contexts in which they will be applied.

Diversity, in fact, remains an asset and the competence-based curriculum, as conceived within the Overstep project, does not deny this complexity, but tries to build bridges to connect different realities. The educational exchange and mobility experience are not an opportunity to build transferable competences tout court but represent an extraordinary opportunity to read one's own context in an intercultural key.

Thus, the examples of curricular competences, built through the reading of academic sources and the joint construction of analytical tools, represent the open and multiform space in which to host the meeting of young learners and teachers from all latitudes and longitudes, in the hope of overstepping some undue borders through the tools of personal and professional training in global citizenship.

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