

European Degree a necessity for continuous education and training in the context of an integrated European system

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Abstract: Motto: “if you do not have general competences in life, you become a slave” (C.V. ICOCIU)

Under the Treaty of Accession to the European Union, we have undertaken to ensure the mobility of workforce on the European common market. This involves training specialists who have the skills for the future and who can work in any Member State of the European Union, in accordance with the requirements of the labour market, but also taking into account the qualification and field of each one [13,16,17,18].

This paper demonstrates that the use of current instruments such as Europass, ISCO, ESCO, ISCED can define a European degree that can be completed, automatically recognized and equated in any market of a Member State of the Union. This requires the creation of a system model of study programs/common standards for broad ISCED fields that are complemented with a similar degree, regardless of the state in which it is obtained. At the same time, there is a need for a quality assurance system at European level, in different areas, to accompany education and training. The two systems together with the European qualifications system - the EQF must be a whole, that is, an integrated education and training system leading to a European degree - "European degree", as said European Commission President Ursula von der Leyen. This European system leads to real labor market mobility.

Keywords: education and training system, labor market, quality assurance system, ESCO, ISCED

1. Introduction

Without presenting renowned statistics, it is well known throughout the European Union that we have millions of people working abroad. It is true that the situation caused by the Covid-19 pandemic has made it possible for many of these people to work from home for jobs and companies outside their home country or even outside Europe.

However, there are economic sectors where work from home is not yet accepted, such as: tourism, maintenance services, logistics, social assistance, especially for the elderly, health care, well-being, real estate and, without limitation, we can also add primary/ vocational/ professional education, which requires either contact between people (teacher-student) or the place of

practice. For part of these sectors, this means a shift of workforce from East to West, for EQF levels 1-4 qualifications, or from West to East, for EQF level 6/7 qualifications.

There are many people working abroad, in the European area, who follow education and training programs (VET) in the visited countries and want, at some point, to recognize their acquired skills or qualifications resulted from such skills and competences.

Recognition can be done in the country of origin, but it should be possible in any EU Member State based on a system created for this purpose. The document obtained should then be recognized by any country and allow free access to a position in an institution in accordance with the qualification. The same process should apply if the qualification was obtained in an accredited educational institution, public or private. All this would be possible if there were European degrees.

European Degrees were mentioned as a requirement of the years to come by the President of the European Commission at the Education Summit on 9 December 2021. Diplomas should be a recognized qualification passport in the European Area that would lead to the implementation of the European dream for complete labour mobility, without any barriers.

The free movement of goods, persons, services, payments and capital is guaranteed by the Treaties of the European Union and, implicitly, by the Treaty of Accession of each country to the European Union, are granted to the citizens of these states, representing the pillars of the Internal Market – as main elements of European integration manifested by:

- the sole European currency, recognized by all Member States, including those not yet part of the euro area, is a beneficial first step in joining the Union and a win for everyone;
- standardization of the national identity card, which has in fact become a personal access passport in all Member States, a huge gain for the workforce and mobility. This will probably be a model for a European competency card, alongside a European degree;
- learning at least one foreign language in each school made it possible for dialogue, the interaction between citizens of different nationalities and allowed the participation in the work process;
- implementation of European norms through national legislation, up methodology level, which allowed people to understand the legislative system, the requirements and obligations of the country they visit / work in, thus reducing the number of abuses and violations of the law. The extension of the Union's powers in various areas can be achieved by revising the Union Treaties, thus the agreement of the Member States and their citizens through their representatives in the European Parliament is needed for the adoption of a single major legislative package;

- the establishment of the European Court of Justice and the conferral of jurisdiction to rule on actions for failure by Member States to comply with their obligations under the EU Treaties is also a gain for those who have decided to work abroad, for cases when sometimes to local authorities violate their rights under EU rules. People say that "it is still not easy to find justice in a foreign country", but it is possible, and in time this institution may be even more operational in the sense that it will also resolve disputes brought by individuals against a Member State that violates the individual's rights, it does not only in the case of trial filed by the European Commission or another Member State against another state that violates EU law.

With regard to vocational education and training, "The Union shall have competence to carry out actions to support, coordinate or supplement the actions of the Member States" according to Art. 6 of the Treaty on the Functioning of the European Union (TFEU), "without thereby superseding their competence in these areas" (Article 2 (5) of the same Treaty). Thus, although these are areas with "European purpose" - art. 6 of the TFEU, however, no visible actions have yet been taken. In this regard, on 29 November 2021, the Council of the European Union issued a resolution on the new plan for adult education for 2021-2030, ie for the valid workforce on the European labour market [38,39].

The following can also be taken into account:

- The Social Summit for Growth and Fair Jobs held in Gothenburg, 2017, which announced the European Pillar of Social Rights. Its first principle is the right to education, as well as the right to support citizens in their search for a job, principle four.

- Education and training were first placed at the heart of the European political agenda in the European Council Conclusions of 14 December 2017;

- If the Strategic Agenda 2019-2024 provided for investments in skills, in 2021 the Action Plan entitled European Pillar of Social Rights was launched, which stipulates adult education and training as the main pillar.

- The Skills Agenda (2020) and the Osnabrück Declaration, which stipulates further vocational training up to level 7 EQF.

Achieving these goals / objectives involves, in addition to quality, equity and the creation of the European degree (<https://education.ec.europa.eu/levels/higher-education/initiatives>) and micro-credentials for qualifications.

2. The European degree pyramid and the European and international instruments it is based on

In this paper, we present a proposal to design the European degree / certification based on existing instruments: the international standard for occupations - ISCO, the European portal for competences – ESCO [22,23,24,25], the international standard for education – ISCED [19,27], the classification of economic activities - NACE.

The pyramid of designing, creating this European certification / degree is presented in Figure 1. It comprises several logical steps, as follows:

a) The format and content of the European Degree (ED) should be established at European Union [20] level, similar to the Europass documents. It will have the European logos inscribed on it, it will be offered by institutions accredited for this purpose and it will be signed by the rector / director / head of the issuing institution.

The single European Europass Supplement would accompany ED, this will be issued in digital format and will be registered in a European Qualifications & Professions Register (EQPR), structured by major ISCO groups and NACE unit groups or activities.

b) Blueprint programs or European university consortia can create models of study programs / professional qualification standards with a common body of competences, which will give the uniqueness of the curriculum and, at the same time, ensure horizontal mobility together with European recognition.

These models can be created taking into account ISCED fields of education or ISCO unit groups.

The common body is given by the general / common competences (transversal / key / workplace, general by sectors of activity, attitudes) and the professional ones (basic, fundamental and field related), professional specific competences are not, mandatorily, taken into account. Specialized professional/occupational skills that may differ from one country to another are not taken into account, but only those that are mandatory [2,3,4,5]

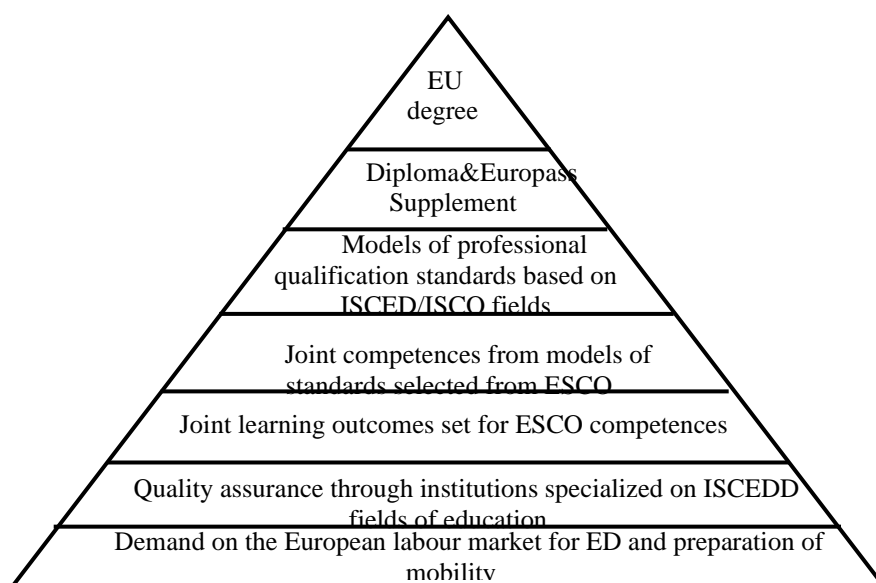
c) The above mentioned competences are to be selected from ESCO and renewed whenever the latter changes. This creates a direct and "just in time" link with the general labour market. ESCO thus becomes a real bridge between work and education.

Behind these competences are the learning outcomes [1], partially in common, which lead to the automatic recognition and equivalence of diplomas according to the Council Recommendation of 26 November 2018 on the promotion of automatic mutual recognition of qualifications acquired in higher education and those acquired as a result of completion of a

higher secondary education and training, as well as the results of periods of study spent abroad (2018 / C 444/01).

The power of these European Degrees lies precisely in establishing common learning outcomes, regardless of issuing institution or location in Europe. They would ensure, in addition to recognition, the automatic equivalence of diplomas / qualifications obtained and employment on the European labour market [32,33].

Fig.1 Pyramid model of the European Degree



Sources: own contribution

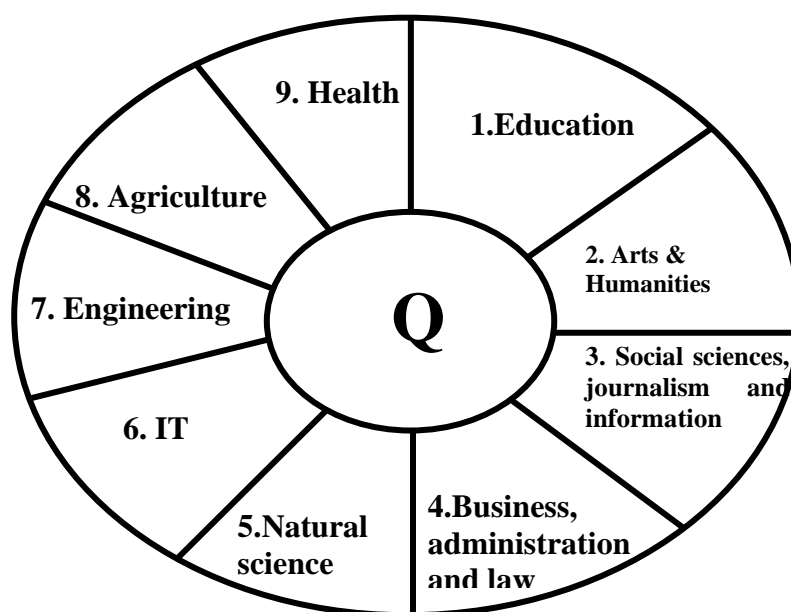
Unique skills, common learning outcomes, this is a goal not easy to achieve in front of the "lions" of the traditional education system. There is a risk that educational institutions with hundreds of years of existence will feel "attacked" by being forced to carry out joint programs with other institution with a more recent existence, because in this case the tradition of history is lost and real competition emerges. At the level of joint programs, the tradition is beginning to disappear, but it will take a lot of political will to be able to implement the system. But isn't that normal?

d) What do the Chinese universities established in the past 20-25 years show? That you can reach the top without tradition, but with will, work and investment. The future belongs to those who know how to do something, have skills, abilities and will. Moreover, if artificial intelligence [19] will make the selection of those employed in the labour market, it is possible that the school tradition will no longer appear among the required criteria.

e) ESCO will also have to contain the learning outcomes related to the skills and competences required by European employers in different fields / sectors of activity. These will be established through a project similar to the one that created ESCO, most likely in the period 2025-2028, when we will have the European structures necessary to coordinate this activity, similar to the US Department of Labour where we find models of study programs with the related competences and learning outcomes, which are constantly updated.

f) Quality assurance through independent institutions recognized at European level, organized for each ISCED field; they are only ones that can give / certify the right to issue an ED. They may have subsidiaries/ structures at national level, as appropriate. It is important to create a single and common assessment system by qualification levels and field of study; there may be coordination. Only by having such an operational system we can talk about ED (fig. 2)

Figure 2. QA system organized by institutions and the 9 ISCED fields



Sources: own contribution

We consider that the system currently used cannot ensure this level of quality, national organizations, although registered in the EQAR-European Register of Quality Assurance Agencies in Higher Education, cannot ensure the quality required for similar training in institutions across different countries, which still retain their own identity.

The integrated quality assurance system for vocational education and training can be created through a project in the same period, 2025-2027, following existing models, such as ABET for engineering and technology in the USA.

g) The labour market must have a real need for these degrees, to feel that competition acts in the same way, ie choose the best candidate, regardless of the country of origin, language used or other characteristics. The interest must be in personal skills and competences.

An economically strong Europe needs ED, people who are very well prepared to rebuild their own economy, where intelligence and production are concentrated in one place; therefore, until globalization takes place, efficient and healthy Europeanisation can be realized.

One can say that today's Europe is suffering from local "brain drain" also due to the lack of this ED and communication with the labour market.

3. Competency based study program model

We have talked about models of study programs / standards for qualifications that are closely related to the labour market through the competences required, especially from ESCO, but that also comply with the tasks and responsibilities of occupations as indicated in ISCO [34,35].

The proposed model is based on the connection that should exist between ISCO-ISCED and ESCO starting with NACE. In the model below, the name of the qualification is generally identified with the name of the ISCO unit group the occupation belongs to. Exceptions are for groups not elsewhere classified, code ending in xxx9. These are analysed as accordingly.

The model is based on the diagram described in Table 1, given as an example for the field of engineering 07-ISCED:

Tabel 1. Model for designing study programs correlated to the labour market required competences

ISCO	TASKS	COMPETENCES	ISCED	LEARNING OUTCOMES For level 6/7		DESIGN Study program			TITLE	COMMENTS
OCCUPATION	National	SPECIFIC	SPECIALIZATION	SPECIFIC	National	SO P1	SO P2	SO P4	Graduate engineer 5years	SPECIALIZATION
UNIT GROUP 2141-2144/ 2151-2153	↑ ISCO ↓	FIELD RELATED	DETAILED FIELD 0711-0716/ 0721-0725/ 0731-0732/0788	FIELD RELATED	↑ International - EU ↓	FP 180 credits			General Engineer in the field without access to occupations	General Bachelor Degree in the filed
MINOR GROUP 214/215 Engineers		FUNDAMENTAL	NARROW FIELD 071/072/073/078	FUNDAMENTAL						
SUB-MAJOR GROUP 21 Science and Engineering		BASIC	BROAD FIELD 07	BASIC						

Sources: own contribution

SOP – OCCUPATION RELATED SPECIALIZATION

FP – FRAMEWORK PROGRAM / PER FIELD

Specialization:

1. Postgraduate continuous training in compliance with standards, access to a specialized occupation

duration: 3-6 months. Specialising certificate, title: specialist

2. Master: 2 years, technical field - 07. ISCED (each fields has its own duration) full engineer degree and title; access to doctorate

According to this model, competences are divided into two main groups: general and professional (see paragraph b.). General competences are common as name by field of activity, but differ in terms of learning outcomes at the qualification level. General and professional competences are both acquired within the joint study / qualification program [30,31].

The breakdown of competences is described below:

I. General competences comprise:

- I.1 Key competences, according to the Council Recommendation of 22 May 2018 on key competences for lifelong learning, with corresponding learning outcomes for each qualification level.

- I.2 Transversal competences/ attitudes, according to ESCO/World Economic Forum - WEF, with corresponding learning outcomes for each qualification level.

- I.3 Workplace competences are set by/ specific for the sector of activity according to NACE, with corresponding learning outcomes for each qualification level.

- I.4 General technical competences, as the case may be, are set by/ specific for the sector of activity according to NACE, with corresponding learning outcomes for each qualification level.

When setting forth the competences under I.3 and I.4 the representatives of the specific labour market have an evident role.

II. Professional competences are acquired and differ by NACE sectors, and qualification levels and are made of:

- II.1 Basic – specific for the activities and tasks described for the ISCO major group the qualification belongs to. Usually are taught at the beginning of the course or in the first year of study.

- II.2 Fundamental – are specific for the activities and tasks described for the ISCO minor group the qualification/occupations belongs to. They are taught during the second year of study for level 6 EQF, and for professional qualifications of levels 1-5 EQF, in accordance with the level of qualification.

- II.3 Field related – are specific for the activities and tasks described for the ISCO unit group the qualification belongs to. They are taught during the third year of study for tertiary level 6 EQF, and for professional qualifications of levels 1-5 EQF, in accordance with the level of qualification.

- II.4 Specialized – are specific for the activities and tasks described for the ISCO occupation the qualification belongs to. They are taught after the third year of study for tertiary level 6 and 7 EQF, and for professional qualifications of levels 1-5 EQF, in accordance with the level of qualification.

A qualification, following this model, leads to practicing several occupations from the same ISCO unit group.

Beside the general and professional competences under II.1-II3., each occupation has its own specific competences. Given the number of specific competences considered when designing the study/ qualification program, at completion, the program can offer access to one or more occupations (a maximum of three is recommended). Qualification standards are customized for the qualification and the related occupations.

- II.5. Specific – for narrow specializations, after obtaining a qualification, in one field and for one qualification level, in order to practice other occupations from the unit group, all that is needed is the acquisition of the specific professional competences particular to the respective occupation, the rest of the joint competences having been acquired when obtaining the qualification and speciality. This offer mobility to the model and the possibility to obtain multiple specializations during a person's lifetime, as the labour market needs change, through permanent postgraduate education programs.

Basically, this means shorter postgraduate specialization courses, or after qualification, giving access to all the occupations from an ISCO unit group.

- II.6 Management – are taught by post graduate/ post qualification/ leadership programs.

These competences can be selected from the ESCO offer, most of them do not need to be created.

The competency package I.1-II.3 forms the common program -CP- that we intend to create, that is the model that has the same general and professional competencies for ISCED field of education and EQF level of qualification.

Competences II.4-5 can be developed jointly at country level or university consortia. These are the so-called specific occupational programs -SOP- and differentiate education and training in each country, except for the occupations taken from ESCO. In this case, SOP can also

be shared, so we are talking about European study programs / standards, which we are looking forward to in the future.

One project that tried to create something similar to the model proposal presented was the Tuning program (European program on the structure of education in Europe carried out under the Socrates program -2005), without linking the three tools we currently have: ISCO-ISCED-ESCO nor making the direct relationship with the labour market.

This model will allow us to talk about a professional development, a career started from the bottom, based on passion, since school, from the first level up to the EQF levels 6/7.

At the same time, there is a cross-cutting development, as general competencies are further developed and detailed with advancement in professional qualification levels, attending several education institutions without having recognition problems and using the micro-certifications at each of them.

The model of curricula / standards based on competences are also a real help for micro-credentials or partial qualifications. If a qualification involves an X number of learning outcomes, ie a number of Y competences (where $Y < X$), a partial certification or micro-credential involves the evaluation and acquisition of an N number of learning outcomes, as part of X ($N < X$), respectively the acquisition of a number of M competences, as part of Y ($M < Y$), which are certified.

If the model presented is applied, it results that at least 70% of the competences and of the learning outcomes for a field and level of qualification are similar, regardless of the institution that certifies them, if it is accredited as we presented, regardless of its geographical area. This means Mobility, Flexibility, ie the current demands of the European Commission. A partial certification in the North is equivalent to one in the South or the East, and the 70% package can be obtained anywhere in the recognized European integrated area or what we have called the European university, which offers EDs. What is left for the students is to choose where they want to finish the studies, last 30%. If they choose European consortia or education and training institutions that have ESCO-only curricula / standards, then you can choose any of them and the result will be the same, recognized and equivalent in the European labour market. If they choose the specialization for a national occupation, they will follow the courses of an institution from the respective area, at their choice / decision but the 70% remains for the future when needed.

The adult will benefit from maximum transparency because this information will be public, the institutions having the obligation to communicate which programs / standards they

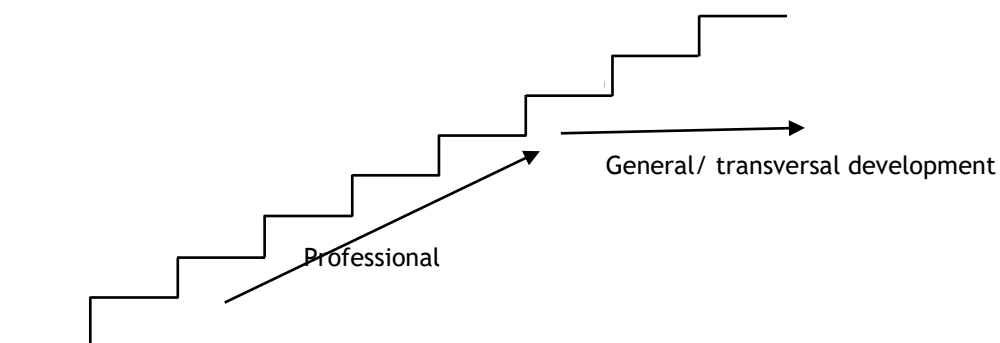
apply, which competences and learning outcomes they offer, which ones are national and which ones are European.

Let's keep in mind one important thing, both professional and general / transversal development is achieved, differentiated, recognized, equivalent differently on qualification levels.

The competence having the same name (wording) from a higher to a lower level of qualification is differentiated by additional and different learning outcomes. In the proposed model understanding the qualification level and its role is essential, see fig.3.

Transversal skills are common per qualification level and may or may not differ from one ISCED field to another. Professional competences develop from one level to another, each time the superior incorporates the inferior, in each ISCED field.

Figure 3. Transversal vocational education and training per qualification level



Sources: own contribution

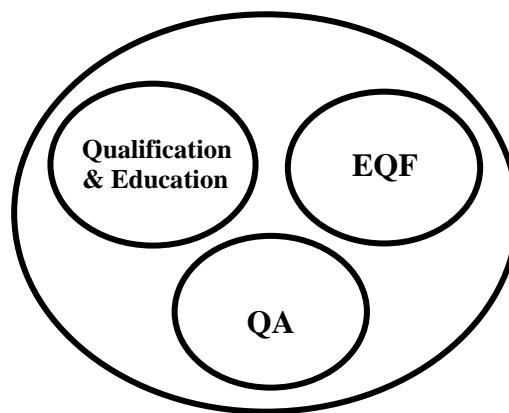
4. Discussion

A European education and training system is proposed by qualification levels EQF and ISCED fields basis of the European degree (Figure 4.), consisting of:

- Integrated qualification / education system ending with ED, based on models of curricula / standards that take into account skills and learning outcomes, in close connection with the tasks and activities of the ISCO occupations in the labour market to which it is addressed;
- The European Qualifications Framework - EQF, which mainly differentiates learning outcomes by qualification levels;
- The Quality Assurance system - QA, unique, organized by ISCED fields of study, which when obtaining a ED, will supervise the observance of the following aspects:

- the existence of common methods, trainings and assessment tools/validations/certification in all institutions issuing ED in that field;
- a common basis for education, training and career for teachers;
- the possibility to practice in the chosen field in companies from different locations/ countries.
- close career conditions for the teaching staff, if they will not be replaced by AI, as the case may be.

Figure 3. Continuing education and training system, integrated to obtain a European diploma, organized by fields and qualification levels



Sources: own contribution

The proposed model is already being experimentally applied at national level in the engineering field, for six ISCED fields of study in a European funded project.

To accomplish the above approach, one needs to form teams, people, mind-sets that go beyond his own interest and understand the interest of the end user, the graduate, and his desire to find a job in an increasingly competitive market. It is obvious that this is not easy to implement in the academic community, which, let's be honest, sometimes proves unshakable patterns, and imposing teaching according to the requirements of the labour market is not easy.

The same thing happened with businesses after World War II, when some people did not understand Marketing and the fact that a new world was emerging: to produce what the market / customer demands, not what you want / can. The collective mind has learned to ask for what it wants, to buy what is new. Those who learned, modernized, adapted, succeeded, while large pre-war companies disappeared in 5-10 years and were replaced by others. We are in a similar moment, so there is a risk that the one that does not adapt to robotization, digitization, understanding of the environment, professionalism, meaning training "just in time", will

disappear. Professionalism in education and training means people, mentalities, schools, transmitted experience, but also social and professional ethics: let's think about *him*, not *me*.

The proposed system is not perfect, it can be improved, but we are aware that its application means a lot of professionalism and social ethics from teachers.

This system is represented by the university world and for the young people who today are more different than before:

- they do not want to be forced to do anything;
- they want to do what they like;
- they want to do when they think it's okay;
- they want independence;
- they want to be themselves, not someone to command them.

That's why they need so much freedom. Let's help them, let's understand their needs and abilities, let's respond to them through appropriate and diverse programs!

Few people today know what they want at 20 years old.

Most people only realize what they want when they are about 30 years old or later. The latter must be supported, and the system presented is such a help for those who need time to choose the path and specializations but have a background: general and common skills, professional qualifications.

In order to have the first European Degrees by 2030, we have to:

- establish regulations for professional qualifications, the European diploma model, and how to recognize it;
- request European funding for projects in order to establish the models of programs / qualification standards by fields (for example, in the fundamental field of Engineering Sciences we have about 10 fields of study, if we correlate them with the core groups of ISCO);
- create at European level the quality assurance system for at least part of the 9 ISCED broad fields, with the participation of all the representatives of the Member States (for example, a single organization at European level to accredit all institutions that have engineering programs according to ICED-13 F -07);
- In parallel, to create a system for teachers, to learn new teaching and communication methods;
- To show professional ethics, to help our fellow citizens to integrate in the labour market, to prosper individually and also as communities.
- The final conclusion is that we can have a European degree by 2030 if there is political wish, funds and understanding of the needs of future generations, meaning social ethics.

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