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School after Corona

Școala după Corona

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Abstract. *It is clear that we were not prepared for this pandemic situation at any of the educational levels. The problem is what happens next. What we will learn, change, understand, keep for such a situation to never repeat? A new approach is necessary, and in the higher education sector, there will be, we think, major thinking, approach and conception changes. In a way, we reached closer and faster the digital period than we expected and some generations wished. Some are already at the digital period core, at this fact should reflect inigher education. Simultaneously, we are in the full study programs conception change, from the importance raise of key, transversal, at work and general competences, to standardisation, recognition and graduate mobility. In the last years, we published a number of articles and books on these topics, and they should be regarded as a whole, together, integrated. They have been and are a signal the something must be done, representing a step ahead. Depending on how we start at this starting point, after the crisis, we have the chance to lose or to win on medium or long term, this is why we address proposals that can help the technical higher education to be continuously up-to-date and requested. We are like F1 races when all the racers slow down at an accident, go slowly for a while and start over, after break, and the last come next to the first. It all depends on them if they want to reaffirm themselves or to stay at tail. In some cases, however, some are not capable of more.to near the winners you need the same standards,*

Key words: pandemic; standardisation; pyramid of competences; learning outcomes; study programs; engineering higher education system; engineering reorganisation; connection with labour market; ISCED; continuous training.

1. What comes after "Corona"?

The international speciality press for higher education mention us a series of steps that will follow rapidly in the next years, as:

- "micro-skills" development, i.e. gaining of specialised abilities;
- "just in time skills" instead of years spent in university;
- personal courses, i.e. the student's possibility to choose his university route;
- at distance evaluation services based on professional standards and methodologies and on a secures IT system;
- at distance credentials recognition, if the new Europass conditions are fulfilled;
- online course offer growth with the intellectual propriety security risk assuming, because the protective IT solutions are not entirely satisfying yet;
- new online courses writing with Q&A sessions at their end;
- direct applications for practice, if possible;
- education dividing between online and traditional environments, depending on the specialisation and domain;
- elaborating professional standards on domains and, most probable, specialisations, becoming the subject for the first 2-3 years of study, allowing between domains, specialisations etc. mobility;
- interest increase for taking some online courses in parallel with professional activity and family life;
- facilitating studies flexibility, adapting needs;
- teacher training through adaptation and learning, so that they acquire the necessary knowledge and be capable to answer the new needs;
- placing the accent on competences will represent, at least until 2050, the professional training motto: "What do you know to do?", "What are you capable of?", "What can you prove alone?", "What can you do in a team?" being some of the new education perceptions;
- key, transversal and personal competences share increase, characterising the qualification level and, in doing so, they are individualised and not generally perceived;
- education standardisation and levelled teaching as fundamental factor for quality assurance;
- in the new educational and teaching conditions context, quality assurance represents one of the major actual and future problems of the higher education and not only;
- lifelong learning passes from declarative stage to a concrete one, even a necessity one;
- professional training problematic passes from student equipping with elements of tomorrow professional life, to gaining professional

competences and metacognitive abilities (assuring continuous learning), so becoming flexible, adaptable and creative in the society they live in and to which, in different manners, they will contribute.

To some of the opportunities presented above we will try to offer pertinent answers, because, as we said, the way in which we start at the after "Corona" starting point will define the in race success, and we wish to be the leading platoon.

In relation to our notified general situation in this period, a series of after "Corona" conclusions can be sketched:

- we weren't prepared for this situation, except for some, few in number, that held online courses before;
- since not necessary, equipment or infrastructure, at an optimal performance level, was missing;
- for the same reasons, we didn't have the necessary software;
- because nobody requested, we didn't have specialists and strong platforms for online education development;
- on one side, because of some local unwelcomed experiences, receptivity and mentality towards the online environment suffered;
- we felt the lack of online courses and, even more, of related evaluations, certifications and projects;
- the lack of specific legal regulations determined the lack of online education funds;
- except for the mathematics and informatics specialisations, access to performant educational platforms was strongly limited;
- the lack of necessary digital experience and competences was noticed even among some of the young teachers;
- self-sufficiency regarding the state of affairs and lack of desire to modernise represent a fact of tertiary education;
- institutional organisation did not take into account education in times of crisis, such as translating education into the online environment;
- lack of simplicity and transparency that can give confidence (as analogy, in order to run online courses, there is no need for the teacher to be an IT or computer specialist, but things must resemble to driving a car: even though there are professional and amateur drivers, car traffic includes all; so should be the case for the educational activities flow in the online environment);
- as a specific touch for many Romanian institutions, the lack of communication was noticed.

All these aspects remain as guidelines that each university and each system will have to take into account over time. As soon as these elements will be answered, so the country will be better aligned to the requirements of tomorrow.

2. New Requirements

Since, in the book "Modernizarea sistemului de învățământ superior tehnic în contextul globalizării (Costoiu, et al., 2020)," we characterised and presented the higher education in general and technical education in particular, we will not reiterate here the aspects that we identified in the mentioned paper as necessary change steps from management to programs and methods.

It is important to choose, firstly, were we are, and what will be required in the future. In this sense, the interest domains for the future will be grouped slightly different (see figure 1) than the model, we are used to until today.

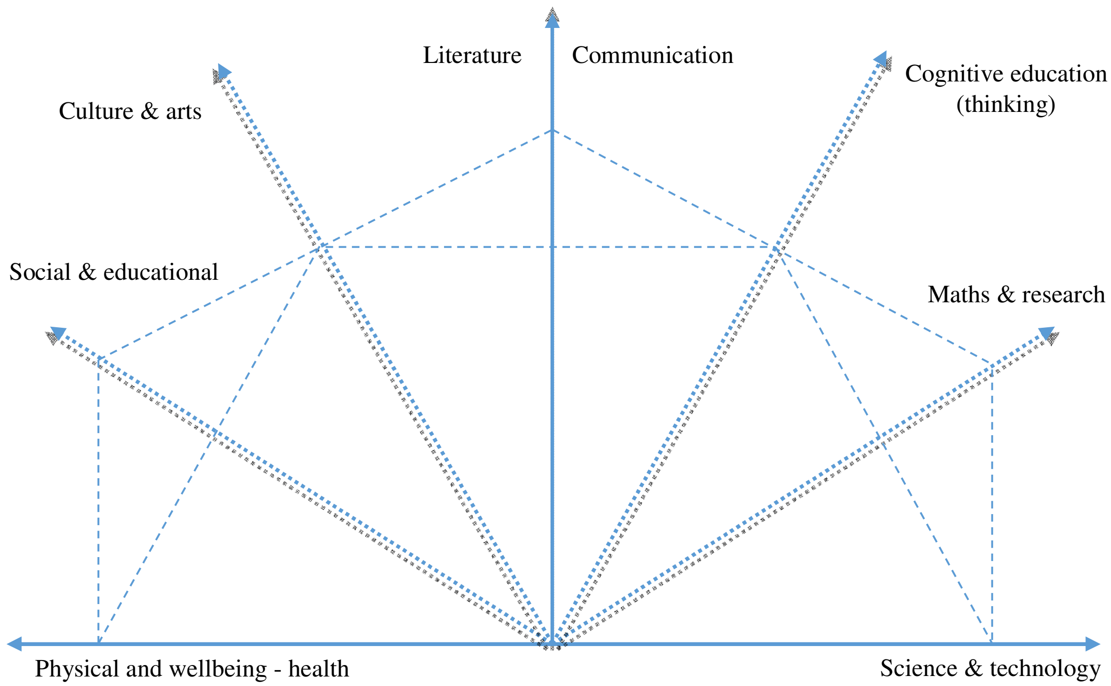

Figure 1. Domains of the future

Another important is the development of short-term higher education as a step in the professional training. Starting from the idea that we need complex people with knowledge and abilities distributed on many directions, we militated in the last publications for a new higher education curriculum. In this regard, as we mentioned elsewhere, this vision joins with a new competences and abilities structure, being organised in:

1. Personal (born with)

2. Gained

2.1. key competences – support thinking and life in society;

2.2. transversal competences – mainly support life at the working place (key and transversal competences characterise qualification levels, in our case, levels 6 and 7);

2.3. basic competences – knowledge necessary for daily life and living in the social and natural environment, these competences are common to occupations in a ISCO major subgroup or in a ISCED large domain;

2.4. professional competences – characterise a profession as it is described in ISCO / COR and divide in:

2.4.1. at the working place (specific to work, working environment, work organisation) – specific to all the occupations in a minor group (e.g. engineers);

2.4.2. general technical – commune to a large number of occupations from an activity domain, being characteristic and common to a COR base group (e.g. mechanical / chemical engineer);

2.4.3. professional – belong to a certain profession, divided in many specific groups and categories, in general related to COR occupational groups;

2.4.3.1. fundamental – common to an ISCED narrow domain, necessary for the development of minor group specific tasks;

2.4.3.2. domain – common to an ISCED detailed domain, specific and commune for occupations from a base group;

2.4.3.3. speciality – common to main occupations from an ISCO base group or an ISCED specialisation domain (e.g. mechanical engineer, chemical engineer or electronics engineer);

2.4.3.4. specialisation – individual for different specialised occupations (e.g. mechanical engineer of…, chemical engineer of… / for…).

These types of competences attract also some specific disciplines, a certain weight in the curriculum and, thus, new study programs. This competences structure helps us answer also to one of the main raised observations in the last years regarding higher education: the discrepancy between the market's request and the educational offer. To understand better the structural relationship between the mentioned competences, they can be placed in a pyramidal model (see figure 2), model presented also in a series of international level meetings.

Figure 2. Pyramid of competences

A similitude between the pyramid of competences (see figure 2) and the pyramid of neurological levels (see figure 3) can be noticed, and such a similitude it is even encouraged. As we gain skills, we satisfy also the neurological development levels, and in doing so we begin to belong to a profession, moving from skills to the profession belief, to identifying with it. Once the spiritual level reached, area in which every person can get individually, we can affirm that the required specialist was created: the professional and his mission.

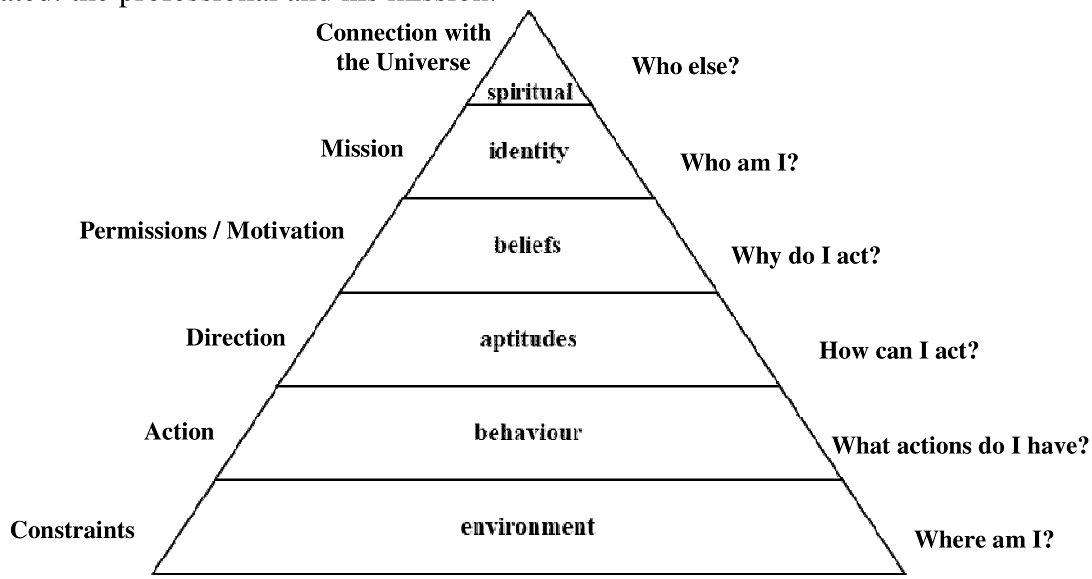

Figure 3. Pyramid of neurological levels

3. Technical education

Further, in this paper, we will focus on technical education, specific to the major subgroup 21 and minor groups 214 and 215 from ISCO / COR. In this manner, the problematic can be addressed for all the groups and related occupations, both for university level, but for professional secondary level and adult professional training level also, no matter the qualification level.

First, we must understand the chronological course of the relationship between occupation, labour market and training programs: the occupation appeared first, its need and request in the labour market, and then appeared the program to train the individuals for satisfying the labour market requests for that occupation. This new paradigm will coordinate education in the first half of the XXI century and, probably, until its end.

Many of the presented aspects can be found, especially for those familiar with them, in diverse directives regarding the regulated professions, directives that allow graduates to move with the certification document (diploma) in European space countries.

However, technical education represents a national problem and situates in fierce competition with similar technical education from educational international space and, for this reason, we consider the focus on it opportune. Lower (see table 1), we will present in detail the programs and disciplines content chosen to materialise these competences, in regard of knowledge, skills, autonomy and accountability, for qualification levels 6 and 7.

Table 1

Engineering education in the XXI century – Competences and programs

Year	**Competence**	**Type**	**Where are they obtained and trained**	**Examples of competences**	**Training**
1	Personal and key competences	Individual academic	Academic level general training	Reading, writing, communication, digital, analysis and critical thinking, STEM, adaptability, flexibility, continuous learning, ethics and integrity, interpersonal abilities, autonomy, accountability, multilingual, human management, creative thinking, optimal IQ level, decision making etc.	• Social Sciences • Psychology • Foreign languages and communication • Ethics, integrity, professionalism, interpersonal abilities • Computer, informatics
	Basic and transversal academic competences	Educational academic	Basic and transversal training	1. Basic 2. Entrepreneurship, teamwork, planning and organising, problem solving, negotiation, solution and opportunities seeking, coordination and planning, business foundations, legislation, citizen accountability, sustainability	• Physics / Chemistry / Biology • Nature Sciences / Philosophy / Mathematics / Astronomy / Sports / Law elements • Entrepreneurship, citizen legislation, sustainability and environmental impact
2/3	Fundamental and workplace competences	Academic and workplace	Fundamental practice and training	1. Engineering foundations, drawing / design, processing & construction 2. Check, control / examination / registration, tool and technology use, action focus, creative thinking at workplace, operational and maintenance at workplace / in profession, design at workplace, ergonomic, workplace	• Thermodynamics • Electronics • Solid mechanics • Fluid mechanics • Operational and maintenance • Drawing / design • Management • Marketing • OSH

Year	Competence	Type	Where are they obtained and trained	Examples of competences	Training
				environment, OSH and environment protection, professional and workplace deontology	
	Domain and general technical competences (for base group and work)	Academic and general technical	Domain training	1. Professions foundations, design, production and profession technology 2. Ethics, business / law / public policies, environmental / social / sustainability impact, engineering economics, control and quality assurance, professional legislation, professional project management, professional sustainability development	• Processing / production / constructions / fabrication • Quality control and assurance • Ethics and law • Project management • Engineering economics • Business and public policies
4/5	Specialty and sector specific competences (industry)	Academic and occupational	Specific training	1. Learning outcomes specific for professions and occupations from the base group 2. Managerial technical learning outcomes, relevant for average and top level leadership	• Specific and specialised • Business and international relations, international commerce

Further, (see table 2) we can analyse o standard model proposal for the study program based on the above presented competences, including the number of ECTS credits for the 4 or 5 year alternative with included master, of which we will talk in detail bellow. We consider that in the post Corona educational and special context we can approach a level 7 NQF higher education graduated with two intermediate levels: one level 5 NQF (short-term) and one level 6 NQF (of domain), following that the level 7 NQF (included master) to be situated at the end of this program. In these conditions, we consider that this model is the best feasible program for lifelong learning.

Table 2

Organisational structure of study plans, fields, ECTS and disciplines

<table>
<tr><th>COR Code gr. 2</th><th>COR structure</th><th>NQF</th><th>ISCO / COR tasks and attributions</th><th>Competences</th><th>Learning outcomes</th><th>ISCED fields</th><th>Disciplines</th><th>Percentage (%)</th><th>ECTS 240 / 300</th></tr>
<tr><td></td><td></td><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">2xxxxx</td><td rowspan="2">Occupations</td><td rowspan="2">6</td><td>According to employers</td><td colspan="3">Specialisation</td><td>Specialisation professional and management</td><td>10%</td><td>24/30</td></tr>
<tr><td>According to COR and employers</td><td colspan="3">Specialty</td><td>Specialty professional + practice + diploma</td><td>25%</td><td>60/75</td></tr>
<tr><td>2xxx</td><td>Base group</td><td>6</td><td rowspan="3">According to ISCO</td><td colspan="2">Domain</td><td>Detailed - oxxx</td><td>Domain + general technical</td><td>20%</td><td>48/60</td></tr>
<tr><td>2xx</td><td>Minor group</td><td>6</td><td colspan="2">Fundamental</td><td>Narrowed - oxx</td><td>Fundamental + at workplace</td><td>20%</td><td>48/60</td></tr>
<tr><td>2x</td><td>Major subgroup</td><td>6</td><td colspan="2">Basic</td><td>Large - ox</td><td>Basic,transversal,key</td><td>15%</td><td>36/45</td></tr>
<tr><td>2</td><td>Major group</td><td colspan="8">• Major group 2: tasks, attributions, autonomy, accountability;
• personal competences, common for level 6 – 10% – 24/30ECTS;
• One discipline = 6 ECTS; 5 disciplines / week; 20-25 hours / week;
• 60 ECTS / year × 25 hours / ECTS (D+I) = 1500 hours / year;
• Existing level five learning outcomes, obtained through the Baccalaureate exam.</td></tr>
</table>

4. Technical Higher Education with the Master's Degree Included

This model would presume two major changes:

A. University year duration, unitary approach of ECTS credits and discipline number.
B. Standard study programs formation model, which combines the solving of problems signalled until today, from competences to teaching and financing.

A. University year duration

Starting from a university year duration (reported to the total number of credits) of 60 ECTS credits (the duration of a credit being of 25 hours, from which 10-12 are didactic hours and the rest represent individual activity), we get to a total number of 1500 hours / year, from which 720 are didactic hours and 780 represent individual activity hours. If we calculate 6 credits for a discipline, i.e. a number of 5 disciplines per week or 1 per day (5 hours each), it results a total of 700 hours (28 weeks × 5 hours / day × 5 days), to which we add 20 hours for evaluation (10 disciplines × 2 hours / disciplines), getting to a total of 720 didactic hours.

The one discipline per day allocation is optimal for maintaining the student's attention and facilitating essential memorisation, (the 5 hours / day can be two for course and three for applications or by the department's decision). Up to the 8 hours / day regulated by the labour code, the student can realise 3 hours / day of individual study, in total a number of 420 hours (28 weeks × 5 days × 3 hours / day). If we add the individual hours during session (5 weeks × 8 hours / day × 5 days / week = 200 hours) and the practice hours (4 weeks × 8 hours / day × 5 days / week = 160 hours), results a total of 780 hours of individual study. Moreover, the diploma project should be graded as a six ECTS credits discipline.

Therefore, a good accredited student (i.e. a student who finished all his exams at the end of the year) would have 15 holiday weeks (2 in winter, 1 for Easter and 12 in summer), and by this feeling truly that he has a student life. For other domains, other choices can also be made regarding the hourly interval, but the total results should constitute the same 1500 hours / year.

This solution imposes itself for the future, especially because it resolves, as mentioned before, many of the identified problems, such as: short-term higher education, unchanged COR occupations, increased financing per student, obtaining the country commitment level of 26.7% for tertiary education graduates of 30-34 years old, increased managerial efficiency with reduced number of personnel. To all, we add the advantages brought by standards, as we will show further, as well as the online training generalisation. Included master will contain the professional master, not excluding the research master for narrower specialisations that can be continued to doctoral studies. In the same time, the postgraduate specialisations or permanent education programs extent, most times paid, based on standards.

B. Standard model for study programs

There is not case to reiterate the fact that standardisation means progress, clear directions and knowledge, since the economical conquest through standards theory is already well known and can be applied now for education and higher education.

The standard study programs formation model (see table 3) clearly highlights the earlier mentioned aspects, as well as the delimitation between the first 3 years from the others (1-2), which become specialisation years, without stopping obtaining some certificates after completing 2 or 3 years.

If we follow the model of some tradition rich countries (Scotland, Wales, Ireland), we can grant a certificate after 2 years and a specialisation diploma, only by mentioning the domain (e.g. engineer) in the energetic / mechanical / chemical domain, or by other models (France), the technician engineer diploma. Germany, for example, grants a diplomat engineer diploma after five years, representing a possible way of thinking, but not suitable for us, because the COR is not structured in that way. So that we don't make a legislation modifying intervention and, by this, making things more complicated, we consider that a certified engineer in the domain could solve the problem and the diploma can be obtained after 4/5 years.

This aspect contains two components that form the program:

- The first component, with 180 credits and a three year length
  - Permits the student to leave school after 2 years and obtain a level 5 NQF certificate (with 120 ECTS), through which it certifies that the graduate totally or partially covered and graduated the basic

disciplines (being included the key, transversal, personal and basic competences) and the fundamental ones.

- Anytime he desires, the graduate has the possibility to return and continue studies in any of the composed fields in the fundamental domain or he can choose another fundamental domain and for his other competences to be recognised (we talk, by this, of a student-centred individualised education, at free choice, transparent).
- After the first three years, the student receives a level 6 NQF certificate (180 ECTS) that grants him the right to employ in domain occupations, without having the engineer or basic engineer / technician engineer title, without anything attached.
- The student has the possibility to work in the domain so that, afterwards, to come back and follow another two speciality and specialisation years, having the experience and being more responsible for the specialisation selection than when he entered higher education.

• The second component, with a 4 or 5 years length
  - After completing the four years, the students gets the engineer in… title, of level 7 NQF (240 ECTS) or after 5 years, research master (300 ECTS).

This system facilitates a high degree professional mobility for the student, having several options in establishing the profession and specialisation in a better-informed manner. However, in order for this simple system to be applied, the legislation in force needs to be changed, so it provides the engineering included master, as is the case for architects.

Table 3

THE STANDARD MODEL FOR STUDY PROGRAMS

ISCO	Tasks and attributions	Competences given by employers of ESCO	ISCED	Level 6/7 Learning outcomes		Construction of study program	Title	Observations
Occupation / Occupations	National	Specific for national and local level occupations (max.30%)	Specialisation domain	Specific for national and local level occupations (30%)	National	PSO 120 Credits 1 — PSO 120 Credits 2 - - - PSO 120 Credits n	Diplomat engineer in the occupation's qualification	1. Post graduate 1/5-1/3 of occupation
Base group 2121-2144 /2151 - 2153 Engineers by field	International	Domain Common for the domains	Detailed domain 0711-0716 / 0721-0726 / 0731-0732 / 0788	Domain Common for domains	International	Frame program 180 credits		
Minor group 214 / 215 Engineers		Fundamental Common for engineers	Narrowed domain 071 / 072 / 973 / 078	Fundamental Common for engineers				
Major subgroup 21 Engineering sciences		Basic Common for engineering sciences	Large domain 07	Basic Common for engineering sciences				

Summing the information presented above, we will also build a study plan (see table 4) for the technical engineering domain, with common disciplines include, for 5 years (starting from the idea that the first 3 years are identical, either we refer to a 4 or 5 years program). Important to know is that there are some proportions that need to be followed among the presented disciplines, through which, according to labour market request, at different conferences and congresses (including the World Economic Forum), the extension of key, transversal, personal, at working place and profile generated competences was requested. In this matter, although the above-mentioned plan reflects the mentioned aspects, it has to deal, definitely, with a resistance from the technical professional body: the engineers. In today's society, where industry does no longer hold a guiding role, the engineer's role and place dropped strongly in the society's vision, and the need to work with people, understanding, negotiation and the business deal raised, and from this point raised also the requests for these competences.

The plan (see table 4) was designed so that it raises the attractiveness level, and the first 2 years do not represent a fear and drop-down factor, as it happens today, but, even more, to facilitate the wish for continuing in the field of exact sciences and engineering. For the same reason, the 3rd year is not complicated also, wishing for a larger number of students to desire to become engineers. The last two years are decisive to become specialist engineers, proving who really want this carrier and stay here for future specialisations. As said, the first 2 years can be organised at faculty level and all becomes easy to teach and, eventually, even online, so that those who can work in that time, to have this possibility.

Table 4

Study plan – standard model

Year	Discipline	Competences				Specialty	Specialisation
		Key, transversal, personal	Basic	Fundamental and at workplace	Domain and general technical		
1/1	1. Native language and communication	X					
	2. Social and citizenship sciences	X					
	3. Digital IT	X					
	4. Academic Ethics	X					
	5. Opt. 1 – basic		X				
	6. Sports	Y					
1/2	1. Opt. 2 – basic		X				
	2. Opt. 3 – basic		X				
	3. Psychology and Education Sciences	X					
	4. Fundamental 1			X			
	5. Foreign language and cultural expression	X					
	6. Sports	Y					
2/1	1. Opt. 4 – basic		X				
	2. Management bases	X					
	3. Marketing bases	X					
	4. Fundamental 2			X			
	5. Foreign language and profession – profession communication	X					
	6. Sports	Y					
2/2	1. Fundamental 3			X			
	2. Fundamental 4			X			
	3. Fundamental 5			X			
	4. Foreign language and professional IT communication	X					
	5. OSH and work environment			X			
	6. Practice				Y		
	7. Sports						
3/1	1. Field 1				X		
	2. Field 2				X		
	3. Field 3				X		
	4. Field 4				X		

Year	Discipline	Competences				Specialty	Specialisation
		Key, transversal, personal	Basic	Fundamental and at workplace	Domain and general technical		
	5. Technical foreign language 6. Sports	X Y					
3/2	1. Field 5 2. Field 6 3. Field 7 4. Operational and maintenance 5. Field practice management 6. Practice 7. Sports / foreign languages	 Y			X X X X Y		
4/1	1. Specialty 1 2. Specialty 2 3. Professional Ethics and Legislation 4. Industrial design 5. Field bases and professional development				 X X X	X X	
4/2	1. Specialty 3 2. Specialty 4 3. Specialty 5 4. Specialty 6 5. Practice					X X X X	 X
5/1	1. Enterprise economics and entrepreneurship 2. Design and production 3. Specialty 7 4. Specialty 8 5. Specialty 9 – quality assurance	X				 X X X X	
5/2	Opt. 1; 2; 3 specialisation and managerial disciplines 4. Practice 5. Diploma					 X	X X
		12 d/ 72 cr 24%	4d/ 24 cr 8%	6d/ 36 cr 12%	12d/ 72 cr 24%	11 disciplines 66 ECTS 22%	5/ 30/ 10%

The model presented above, as an education research follow-up, shows that approximately a third of the disciplines represent disciplines for individual's development, i.e. care for his future, a third are fundamental and domain discipline, while a third represents speciality and specialisation disciplines. This judicious division should lead to a specialist that is well qualified for the labour market and can handle the society and understand the surrounding environment.

Concrete, two-thirds represent universally valid disciplines for all the engineering categories, and a third distinguishes them. This division facilitates mobility in the labour market and offers, through requalification, a pertinent answer to its modifications.

It just remains to settle the relationship between the disciplines, competences and learning outcomes, at university consortia level.

Not least, regarding the fundamental and domain disciplines situation, ant then the speciality and specialisation disciplines one, keeping in mind their changing speed, the related chapters must be designed adequately for the years 2025-2035/40. If fundamental disciplines can be reanalysed every 10-15 years and the domain disciplines every 8-10 years, the other disciplines must be reviewed every 5 years maximum, in order for them to train professionals for tomorrow, not for yesterday.

All these elements should represent the subject of some project common to the university consortia and the big actors in the labour market. These projects should be part of a strategy regarding technical higher education, strategy that must consider discipline and learning outcomes actualisation programs or even a standard model.

Conclusions

The most important aspect to understand from the paper presented following European and international level researches in the field of higher and technical education is that, starting the 90s at global level and the 2000s in Europe, something fundamentally changed. This change made so the school source (especially the technical school) be represented by labour market requests and much less by the professors' prestige or their disposition towards learning.

The employment, salary and better life need for high qualifications level graduates led to higher education's recalibration towards the learning outcomes and, implicitly, its focus on the student's interests.

This move, to which Europe aligned also (especially after 2007, when the new European Qualification Framework was approved, except for us), will be much modernised, through two elements:

1. Europass, its digitalisation, credentials and its new electronic form, which will be fully implemented this year, and here, through the NQA, we are relatively up to date and hope to be from now on at the European requirements level.
2. Online education development, which will lead to:
    - Minimal mandatory digital competences (see in the study plan model that IT and communication are found from the very first semester of the first year);
    - Mass taught disciplines, to a large number of students, with assistants for every group (for key, transversal and personal competences);

- Individualised study programs for small student groups, that will have a solid base formed in the first three years of study, in the case of technical education;
- Individualised and secured online evaluations held in front of the PC, in a fixed period of time, with open-book access, in order to encourage thinking and, then, memory, in a reversed process than the actual mode of development;
- Qualifications standardisation and improvement in the sense of co-financing education;
- Individualised competences, aptitudes, skills construction on clear and precise models / standards established by the labour market;
- Insertion of people who, either for professional reasons, or for health or family reasons, could not attend higher education;
- New teachers and, why not, teams formed out of teachers and production specialists.

All these elements will radically transform school, especially higher education, but also the professional and technical education. University will become in this way an open service to anyone who want to learn and train professionally or personally and, most important, it will answer students' and labour market's requests and desires, truly becoming a school for all.

It is not wrong to say that whoever will adapt to the new requirements will remain in the market even after 2025. After all, the presented models belong by right to the future and there is only need for managerial will so that they are implemented and extensive quality assurance procedures are started in an institution in order to fully understand and recognise these models' value.

Online means, from education's point of view, total access to the sectorial competences school and less through hierarchies' school. This will be, definitively, the XXI century's education, the education of 2025/2030.

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