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**Key success factors in lifelong learning strategies at  
companies' level**

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## **TABLE OF CONTENTS**

### **Chapter I: Introduction and methodology... 3**

- a) The challenges of the labour market and the need of lifelong learning... 3
- b) Methodology... 6

### **Chapter II: Theoretical framework... 8**

- a) Review of the scientific literature... 8
- b) Public institutions... 16

### **Chapter III: Interviews with companies... 23**

- a) The broad picture: the lifelong learning concept, the labour market challenges and the strategic approach... 23
- b) Success factors... 26
- c) The outcomes of the interviews ... 31

### **Chapter IV: The European Union policy framework on lifelong learning... 32**

- a) Lifelong learning in EU context... 32
- b) Policies, initiatives and tools... 33
- c) Social and economic values... 40

### **Chapter V: Conclusions and recommendations... 40**

- a) Conclusions... 40
- b) Recommendations... 42

### **Annexes... 43**

Annexe 1... 43

Annexe 2... 45

### **Bibliography**

## **Avant-propos**

This dissertation is part of obtaining the Masters degree from Université catholique de Louvain in European Labour Studies. The thesis analyzes the key success factors in lifelong learning strategies at companies' level. The idea for this research dissertation came from my work experience as a trainee in the field of sustainable future of work for CSR Europe.

The world of work as we know it is changing faster than never before. Mega trends such as the digitalisation, globalization, climate change, technological and demographic changes are bringing new challenges in terms of the right training and education that the employees needs. One thing is sure: the employees will need to change and adapt constantly in their work life as the world of work will have constant changes that will be fast and abrupt. A person's education does not stop once he finishes his formal studies.

More and more companies realize that to adapt to the new world of work they need to invest more in lifelong learning activities for their employees. This thesis aims to contribute to the highlight the key success factors in lifelong learning activities at companies' level. I will put together data from the scientific literature but also data purchased from companies.

Some difficulties were cause by Covid19 pandemic. The interviews have been obtained more difficult and with luck, in the online environment, by the goodwill of some people whom I thank. Other interviews were unfortunately canceled.

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## **I. Introduction**

The world of work has always been evolving. Until recently, we were accustomed to a long-term predictable way of working, linked to a learning process well defined in terms of time needed and required competences. These premises started to change in the last decades, even at a much higher speed in the last years due to mega trends that are reshaping the world of work, such as digitalisation, globalization, climate change, new technologies or ageing population.

In this introductory chapter, I will firstly present the broader context of the European labour market. I will present the challenges and trends related to work that creates the need of lifelong learning in our society. Secondly, I will present my research questions and describe the methodology of this thesis, including the tools I will use for gathering and analysing data.

### **a) The challenges of the labour market and the need of lifelong learning**

There are different issues reshaping the European labour market at the moment, but some of them have the potential to fundamentally change the world of work. We can refer to this issues as mega trends, with potential of creating both big opportunities of economic and societal growth, and disruptive effects such as unemployment, labour exclusion and jobs polarization.

#### **Digitalisation of work**

One of the mega trends is the digitalisation of work. In 2017, the European Commission presented the report called “The Digital Skills Gap in Europe”, showing that “In the future, 9 out of 10 jobs will require digital skills”, as well that “169 million Europeans between 16 and 74 years – 44% – do not have basic digital skills” (EC, 2017)

This need call for large learning programs for digital literacy and skills. Lacking basic digital skills means being at high risk of exclusion from the labour market. OECD showed that 32% of workers will face “significant changes in their job tasks due to automation (OECD, 2019, page 50). Even jobs that were not requiring digital skills in the past are now asking at least the use of a computer and the internet.

The digitalisation might create opportunities such as working from distance or access to the global market. On the other side, we can already see a polarisation between ICT highly skilled workers and low skilled workers that are more vulnerable to automation. In this context, engaging in lifelong learning can boost digital skills, offering more chances of integration into the labour market.

#### **Ageing population**

In Europe, the life expectancy is growing and the fertility rates decrease. Therefore, according to Eurostat, “the number of older people in the EU is expected to grow sharply, increasing from around 98 million in 2016 to 151 million in 2080.”. In the same time, “the working age population is expected to decline by nearly 45 million” (as cited in European Youth Forum, 2018, p.19).

Because of reforms of retirement schemes which raise the retirement age, the obligation for the older workers is to stay longer than before in the labour market. The elderly workers can bring

important advantages for the employers, as they have solid work experience, specific knowledge and networks. In the same time, this involves staying updated to the new tools, the new working styles or the new competences needed in the market. As these types of changes will happen constantly, the need for lifelong learning it is even more valid for the elderly.

Moreover, according to OECD, the ageing population might “require higher investments in healthcare and pensions systems, creating financial pressure on other policy areas, such as those relating to skills development and use.” (OECD, 2019, p.57). Therefore, the private companies should play a more active role in upskilling and reskilling their employees.

## **Globalisation**

The globalisation offered the chance to the local economy to connect to the global markets, benefiting especially for the developing countries. The reallocation of jobs and the technological advancement have created a much harsher competition for many European workers that now must compete with millions of people around the globe.

As the European Commission noted, “the case for better skills development in Europe is even more urgent in the light of the global race for talent and rapid development of education and training systems in emerging economies such as China, Brazil or India.” (as cited in Eugenia A. Panitsides & Sofia Anastasiadou, 2015, p.133) Not only that the European workers need better skills in the globalized labour market, but they are dealing with an increasing demand of innovation for staying competitive.

In a globalized world, according to CEDEFOP, “technological change will increase the demand for high and medium qualified at the expense of low-qualified individuals.” (as cited in Eugenia A. Panitsides & Sofia Anastasiadou, 2015, p.133). Therefore, the need of lifelong learning and upskilling will play a key role for long term employability and competitive advantages for the employers.

## **New technologies**

The new technologies refers, non-exhaustive, to algorithm decision making (Big Data), 3D-Printing, industrial and service robots, artificial intelligence, blockchains, internet of things and others (European Parliamentary Research Service, 2018, p.25).

An essential impact of the new technologies in the labour market is that “the skills required in emerging jobs are not the same as those demanded in jobs that are disappearing” (OECD, 2019, page 51) According to the European Commission (EPRS, 2018, p.16), the sectors decreasing the biggest number of employees are low-tech and medium-low-tech manufacturing. The sectors gaining the most new employees are market knowledge-intensive services and high-tech knowledge-intensive services, including management activities, engineering, market research, or ICT services.

Moreover, the disruptive effects of the new technologies is not an issue that will happen only once. Most probably, in the future, we will see constantly new technologies that will replace people in many sectors, creating new jobs in very different sectors. In this context, we need extensive systems of lifelong learning and professional reorientation. According to Panitsides and Anastasiadou (2015), the mismatches between employers’ needs and the employees’ competences will be a major challenge for the labour market.

## **Climate change**

Many elements of the global economy are defined by unsustainable consumption and production practices. The severity and frequency of the natural disasters caused by climate change have a significant impact on the work force, supply chains and other elements. (European Youth Forum, 2018, p.17)

The European Commission (2019) proposed in December 2019 the European Green Deal, that could significantly change the activity of many sectors and the future jobs of many employees. In order to achieve the ambitious plan to have zero carbon emissions by 2050, it is clear that many companies will have to fundamentally rethink how they produce and consume, and adapt their workers to the new green and digital economy.

The expected impact is big, so the EU is already assuming pro-active re-skilling and upskilling processes “in helping Europe’s workforce to acquire the skills they need to transfer from declining sectors to growing sectors and to adapt to new processes.” (EC, 2019, p.19)

## **Companies’ responsibility**

In contrast to the classical education systems, including schools and universities, the European states do not allocate very large amounts of public money for adult education and lifelong learning opportunities.

Eugenia Panitsidou et al. noted that “in light of neo-liberalism prevalence and reduction of the welfare state, for first time in a EU policy paper, there is made reference to allocating the costs of LLL to individuals themselves, calling on Member States to encourage citizens to invest in their own learning, for both personal fulfillment and employability.” (Panitsidou, 2012, p.6)

In this context, the companies should play a more active role in offering learning opportunities for its employees, as both sides will have gains. On the benefits of training to firms, OECD noted that “some of the gain goes to workers in wages and some is kept by firms: it has been estimated that the two shares are roughly the same size” (OECD, 2000, p.31)

According to Panitsidou et al. an increasingly recurring problem in the labour market is the “new trends of multiple entry and exit from the labour market, rather than the traditional sequence (education, employment and retirement)”. This phenomenon requires “a framework for organizing and supporting these transitions”. (Panitsidou et al, 2012, p.551)

As we will see, many companies have already started to invest massively in learning activities for their employees. This raises the question how they could do it more efficient and what are the success factors for implementing lifelong learning strategies at companies’ level. To better exemplify what companies do for employees' lifelong learning activities, a few summary case studies can be found in Annex 1 of this paper.

## **b) Methodology**

This thesis is organized around one main research question and several secondary research questions. The main research question is, given the above-mentioned developments, which are the key success factors of lifelong learning strategies at companies' level? The secondary research questions are: 1) Which are the most efficient lifelong learning methods that companies are using to benefit from the success factors? 2) Which is the relation between private companies' strategies and public institutions initiatives?

My research questions are the result of an analysis based on the elements explained in the introduction. The main research question is based on my opinion that it is the responsibility of private companies to do more to give their employees the necessary skills. At the same time, adult education is a complex subject that not every company masters. Thus, I want to put the two problems together and provide a potential answer through my paper in which I will identify what elements of success companies can use to better facilitate learning activities for their employees.

Of course, after identifying the success factors we must also talk about their implementation. That is why I chose the second research question in this regard, in order to analyze the best methods by which these success factors can be transferred in reality. Not every success factor can be implemented in the same way by all companies. This depends on the specifics of the activity, on the competencies of the employees and on the field in the market where they work. Therefore, I will try to show these methods from several angles.

Last but not least, the third research question is based on the increasing attention paid by public authorities to adult learning activities. Thus, I think it is important to analyze the relationship between private companies and public institutions on this subject, as they meet and are influenced in reality. If there is no strong direct relationship yet, I will analyze their perspectives separately and compare them.

In order to have a clear picture of what success represents in lifelong learning, we need measurement tools. Therefore, I will look into the scientific literature about lifelong learning and the related concepts to see how success is identified and measured (two sections in the chapter II). I will also present the perspective of the public institutions and other stakeholders (one section in the chapter II), with a comparative analysis to emphasize common and different elements between the two. I will look into the evolution of the concepts over time, the main theories, the main definitions and the state of discussion on these concepts (the three sections of the chapter II).

For doing so, the main tool will be analysing articles from academic journals and books related to the learning topic. Second, I will analyse documents from public institutions and other stakeholders such as non-governmental organisations and private companies.

After, I will search to obtain data from private companies. Therefore, I will do a series of semi-structured interviews with different companies for better understanding what is their view about the key success factor in lifelong learning strategies. I will compare the information from the scientific literature with the data from private companies.

Lorraine Savoie-Zajc (2009) defines the semi-structured interview as “a verbal interaction between people who voluntarily engage in such a relationship in order to share expertise and this to better jointly develop an understanding of a phenomenon of interest for those in attendance” . As well, this tool “aims at understanding the world of the other (..) without imposing a prior categorization which would limit in fact the understanding of the phenomenon” (Benoit Gauthier, 2009, p.339)

I will use the tool of semi-structured interview because it allows me to have a well defined topic of the discussion, but in the same time focusing on the experience of the interlocutor, who can lead the discussion in certain aspects. By doing so, I will have a broader perspective offered by the companies.

I will use the content analysis technique for testing the research hypothesis with the data from the interviews, combining quantitative and qualitative elements. The quantitative elements consists in the identification of the key success factors. The qualitative elements consists in explaining why these elements are important and by what methods are implemented.

Berelson noted, "content analysis is a research technique that aims at the objective, systematic and quantitative description of the manifest content of communication." (Bernard Berelson, 1952, p.44). Therefore, content analysis technique is an objective and systematic description of the content. Consequently, I will use this technique to highlight systematic elements present in the scientific literature and in the data from the interviews.

The analysed text is divided into categories relevant to the research, coordinated with the research hypothesis. The analysis must comply with the following:

- “Exhaustiveness - classifying the content into categories that allow analysis
- Exclusivity - an item belongs to a single category
- Objectivity - the index can be classified in the same category and by another analyst” (Bernard Berelson, 1952, p.44)

The chapter II will be devoted to the theoretical framework. There I will define the main concepts and theories related to my research questions. I will use academic sources, giving a clear perspective of the concepts used for my topic. I will add as well analysis from the perspective of other stakeholders such as the public institutions, to see if the concepts are defined in the same way as in the specialized literature.

The chapter III will be devoted to the interviews with private companies. The goal of this chapter is to compare the success factors identified in the theoretical framework with the practical experience of the companies that apply these concepts. As well, I want to identify new ideas and concepts which are considered successful by these companies.

The chapter IV will be devoted to analyze the policy framework of the European Union in regard the lifelong learning. One of my secondary research questions is based on the relation between private companies’ strategies and public institutions initiatives. Therefore, the goal of this chapter is to analyze and better understand what the public institutions are doing at European level to implement lifelong learning strategies.

In the last chapter, the fifth, I will present the conclusions of this paper: what are the most relevant data, what are the similarities and differences between the specialized literature and the data obtained from companies, what new concepts do companies bring, which are the

success factors identified and confirmed, which is the EU policy framework. Through these things I will formulate in this chapter answers to my research questions. I will also make a series of recommendations about the success factors in the lifelong learning strategies’.

## **Chapter II. Theoretical Framework**

### **Introduction**

In this chapter, I will analyse the scientific literature and different theoretical approaches of the lifelong learning concept, related concepts and potential success factors. The goal of this chapter is to create the framework of this paper by defining in accordance with the specialized literature the key concepts that will be used and to identify possible factors of success in lifelong learning implementation.

I will divide this chapter into three parts. In the first part, I will present how the scientific literature defines the concepts that I will use, including potential success factors. In the second part, I will analyse how the public institutions and private stakeholders are defining and measuring the concepts. I will compare the findings with what I have found in the literature, to see if there are different approaches.

This chapter will focus on large, essential concepts of the lifelong learning process, which have indicated as being very important in various scientific sources. Later, in my interviews, I will search how companies prioritize and implement these factors, why they find some factors more important, and which factors helped more in their experiences.

#### **a) Review of the scientific literature**

In this part, I will define the most important concepts related to the lifelong learning, according to the academic sources. I will start with point a) as the broader concepts, such as the learning concept in itself, the adult education and the lifelong learning. I will present definitions, theories and relevant aspects.

Afterwards, I will present in point b) more specific concepts regarding the lifelong learning for companies, such as a learning culture in the workplace, what motivates the employees to learn, personalized learning plans, learning guidance, validation of learning outcomes and evaluation systems.

### **The broader concepts**

#### **The learning concept**

When talking about lifelong learning, the first concept that needs to be defined is the learning concept in itself. Kolb defines learning as “a process whereby knowledge is created through transformation of experience” (as cited in Martin Dyke, 2017, page 27). Peter Jarvis believe that Kolb’s definition “did not account for skills learning or the development of attitudes”.

Therefore, he propose a broader definition, where learning is “the process of transforming experience into knowledge, skills and attitudes” (as cited in Martin Dyke, 2017, p.27).

Peter Jarvis also offer a much larger definition of learning, including the most important elements but also the result of the learning process:

The combination of processes whereby the whole person - body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs, and senses) - is in a social situation and constructs an experience which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person’s own biography resulting in a continually changing (or more experienced) person (as cited in Martin Dyke, 2017, p.29).

In the model of human learning by Peter Jarvis, the learning process is a “breakage” moment, which people want to solve it in order to return to a state of “harmony and continuity”. Consequently, according to Jarvis, “the essence of learning is that the initial feeling of absence or confusion transforms into knowledge, competence, attitude, value, emotion, etc.” (Eva Feketene Szakos, 2014, p.511)

Donald Schon, cited by Martin Dyke (2017), structured the learning experience in primary and secondary experiences. According to Schon, the primary experience refers to structured educational activities that can happen in the workplace or in formal education. The secondary experience refers to methods such as lectures, discussions or audio-visual materials, which they do not have a well-defined structure. We should make a difference here between the concepts of non-formal and informal education, as both can be found in the learning processes of companies.

David Livingstone, as cited by Peter H. Sawchuk (2008), defines non-formal education as a process where the learners opt voluntarily to acquire knowledge, with a teacher assisting and using an organized curriculum. On the other hand, informal education is defined by Livingstone as a process that is rather incidental and spontaneous, generally not related to a teacher who set out to offer a training.

There are different theories that identify the factors that defines and influence the learning process in the workplace. The model presented by Knud Illeris and Associates, as cited by Peter H. Sawchuk (2008), based on their mediational theory, shows that learning at work could be define by the mediation of three categories of factors: technical-organizational (division of labour, autonomy, application of qualification), social-cultural (workplace culture, communities of interests, labour relations), and individual factors (motivation, life-history, socio-emotional dimension). Those factors should not be analysed separately, but rather relate on to each other, as the authors assumed a mediation process between the factors.

## **The adult education**

Lindeman shows that the adult education process is very different from the standard education. He points out that: “In conventional education the student is required to adjust himself to an established curriculum; in adult education the curriculum is built around the student’s needs and interests. The resource of highest value in adult education is the learner’s experience.” (as cited in Knowles, Holton, Swanson, 2011, p.37)

For Lindeman, the adult education is a process defined by the experience of the learner:

It represents a process by which the adult learners to become aware of and to evaluate his experience. To do this, he cannot begin by studying subjects in the hope that some day this information will be useful. On the contrary, he begins by giving attention to situations in which he finds him-self, to problems which include obstacles to his self-fulfilment. (as cited in Knowles, Holton, Swanson, 2011, p.37)

Malcom Knowles (2011) developed the andragogy theory of adult learning which underlines the essential differences between the classic pedagogical model used in education and the set of principles used in adult education, called the andragogical model. The pedagogical model is used for children, where it “assigns to the teacher full responsibility for all decision” and where the “learners play a submissive role in the educational dynamics.” On the other hand, the andragogical model is based on the principles that adults “need to know why they need to learn something”, entering in the learning process with more experience than children, searching to cope with real-life situations and being responsible for their decisions. (as cited in Knowles, Holton, Swanson, 2011, p.37)

For example, in Malcom Knowles (2011) theory, in the pedagogical model, for the need to know, the learners “only need to know that they must learn what the teacher teaches”, but in the andragogical model the adult learners “need to know why they need to learn something before undertaking to learn it.”. As well, for the learner’s self-concept, the pedagogical model sees the learner as “a dependent personality”, while the andragogical model sees the learners as self-directed persons, responsible for their decisions. In the pedagogical model, “the learner’s experience is of little worth as a resource for learning”, but in the andragogical model “in any situation in which the participants’ experiences are ignored or devalued, adults will perceive this as rejecting not only their experience, but rejecting themselves as persons.” (as cited in Knowles, Holton, Swanson, 2011, p.60-65)

Stubblefield defines the adult learning as encompassing “all organized learning activities in which adults engage, including vocational education.” (Burton W. Kreitlow and Associates, 1981, page 12) For Leagans, the adult education is “a process of learning to fulfil individual aspirations and to develop individual potentialities for meeting demands of a changing environment”. As well, the adult education “must be built on knowledge about the patterns of

adult growth and the structure and demands of the society in which adults live.” (Burton W. Kreitlow and Associates, 1981, p.19)

### **What is lifelong learning?**

According to Roger Harris (1999), in the early 1970s, lifelong learning was “focused heavily on the social benefits”, including “all-sided development”. In some perspectives, lifelong learning was seen as “a corrective measure for the existing system of education”. However, starting in the 1990s, the meaning of lifelong learning changed. The focus changed from the social to the economic rationale where the role of the learning was “contributing to the achievement of national economic success by developing the human resources capital required by industries and enterprises.” (Roger Harris, 1999, p.163)

Lifelong learning arose from the need to constantly accumulate and change professional competences and roles in the knowledge economy. In this context, lifelong learning is defined by Knox and Fleming as a “socialization lasting for a lifetime”, meaning that “is essential for everyone to understand and be committed to the role changes required by the change of their life situation as a member of a family, an employee, a citizen, etc.” (as cited in Eva Feketene Szakos, 2014, p.51)

What Knox and Fleming are saying becomes even more important if we analyse the barriers that people have when engaging with lifelong learning. The Bounded Agency theory by Rubenson and Desjardins, cited by Chesters, Cuervo & Fu (2020), presents three categories of barriers: institutional barriers referring to timing and attendance requirements, situational barriers referring to the cost, availability or family commitments and dispositional barriers referring to the desire to study. Many times, the dispositional barriers, the lack of desire to learn, exists because people are not fully aware of the role changes and the professional pathway that they might have in the future. It is a challenge and a potential success factor for companies to eliminate the dispositional barriers by raising awareness about the professional impact of adult learning in an effective way for their employees.

Lifelong learning is a large concept that includes multiple dimensions that can vary depending on the stakeholder that defines them. According to Evelyne Leonard and Emmanuelle Perin, four dimensions vary:

- the targeted population: could be either workers only, but also all citizens, especially “job seekers, the unemployed, and older workers”;
- the training content: strictly in line with the job or transferable general knowledge;
- the responsibilities: companies and workers or also public institutions;
- practical matters: training periods, formal or informal, compulsory or not; (Evelyne Leonard, Emmanuelle Perin, 2009, p.292)

As we can see, lifelong learning also refers to skills and attitudes that did not necessarily have a professional impact, but a personal or social impact. Giving the fact that this paper is focusing

on what private companies are doing in their strategies for lifelong learning, I will use the concept of lifelong learning rather referring to competences that are in line with the job competences for workers and employees from private companies. Therefore, I will focus more on the part referring to the professional outcomes and changes.

Wirtz defines lifelong learning as “the distribution of educational opportunity over the entire life experience so as to maximize both the individual and the system interests that are involved (..)” In other definitions, same source, lifelong learning “refers to the purposeful activities people undertake with the intention of increasing their knowledge, developing and updating their skills, and modifying their attitudes throughout their lifetimes.” (as cited in Patricia Cross, 1988, p.257)

### **Specific concepts at company level**

#### **The learning culture**

The learning culture or learning climate refers to the organizational learning context and the way the company relates to the activities and interactions that aim to foster the learning processes. Vahasantanen et al. shows that it is essential “to recognise and reduce constraints on professional agency (e.g. unequal power relations) and create an open and confidential atmosphere for experimentation, innovation, and sharing experiences to support work-related learning.” (Vahasantanen, Paloniemi, Hokka, Etelapelto, 2017, p.264) We can assume that the confidential atmosphere might be created through different methods, such as well-defined time for learning, individual assessments of learning needs, opportunities to practice, encouraging experimentation and so on.

According to Maurer et al., “the intention to participate in learning activities is a powerful predictor of actual participation.” (as cited in Kyndt et al, 2013 p.317). Therefore, an important step is making the employees to commit being involved in learning activities. How can companies do this? Fostering a continuous learning culture is an important element. According to Kyndt (2013) et al., the learning culture is related to three factors: “perceived job autonomy, perceived limited numbers of opportunities and support for participation, and perceived stimulation from the employer.”

It seems that in the learning culture, the perceived organisational support is a success factor. The concept of perceived organisational support is defined as “the general belief employees have in terms of how much the organisation values their contributions and cares about their well-being.” (Kyndt et al, 2013, p.320) This might occur in the number of learning opportunities and the conditions that encourage the participation.

Cognitive theorists points out that a learning climate “encourages experimentation (hypothesis testing) and is tolerant of mistakes provided something is learned from them.” (Knowles, Holton, Swanson, 2011, p.115). The humanistic psychologists believes that the learning climate should “especially emphasise collaboration rather than competitiveness,

encouragement of group loyalties, supportive interpersonal relations, and a norm of interactive participation.” (Knowles, Holton, Swanson, 2011, p.115)

Fostering a learning culture requires an open and confidential atmosphere, and perceived organisational support, but also the employees should be directly involved in modelling the learning experiences. One way to empower the employees is “conceptualising the training course as a product and offering individual’s choice sets in which the product attributes vary.” (O’Keefe, Crase, Dollery, 2007, p.46). The attributes might be “the price, the amount of time taken to successfully complete, the type of skills acquired, the transferability of the skills and so on.” (O’Keefe, Crase, Dollery, 2007, p.46) Giving more power of choice to the employee might rise the motivation to learn and the awareness of its own professional pathway.

Another success factor of the learning culture is the rewarding system inside the working place. Malcolm Knowles (2011) presents the idea that in the organisations where the participation in learning activities is awarded by financial means or related emoluments, “the climate will certainly be more conducive to learning than in organisations in which the attitude is that learning should be its own reward.” (Knowles, Holton, Swanson, 2011, p.120)

### **What motivates employees to learn?**

In Patricia Cross’s book, “Adults as Learners – Increasing Participation and Facilitating Learning”, findings show that “Adults learners are most frequently motivated by the pragmatic desire to use or apply the knowledge or skill” (Patricia Cross, 1988, p.84). Moreover, one of the factors defining the Educational Participation Scale is the professional advancement, described as “higher status in job, secured professional advancement and keeping up with the competition”. (Patricia Cross, 1988, p.116)

Rubenson’s expectancy-valence model presents the individual motivation as composed of expectancy formula and valence formula. First, the expectancy is defined by two components: “the expectation of personal success in the educational activity and the expectation that being successful in the learning activity will have positive consequences” (as cited in Patricia Cross, 1988, p.116). The two components are multiplicative, therefore if any of them is zero, the motivation will be zero. Second, the valence is “the algebraic sum of the values that the individual puts on the different consequences of participation.” (as cited in Patricia Cross, 1988, p.116) For example, the participation in a learning process might bring a financial benefit but also a personal cost. Therefore, the value can be positive, indifferent or negative.

One potential success factor in lifelong learning strategies is the transfer of knowledge from the education process to the workplace settings. Michael Eraut (2004) structured the transfer in five stages, saying that the workplace may give more attention in “recognizing what knowledge and skills are relevant”, tending to ignore “transforming them to fit the new situation” and “integrating them with other knowledge and skills in order to think/act/communicate in the new situation”. (Michael Eraut, 2004, p.256)

## **Personalized learning plans and methods**

The idea of personalized learning plans has its root in the fact that people may perceive similar events differently. Dyke shows that “it is not a simple given, whereby everybody experiences the same event in the same way” (Dyke, 2017, p.28). He believes each individual biography and experiences can affect the new learning situations.

For example, an older worker will perceive different a learning process than a younger one. Eva Szakos says, “The older the adult is, the more difficult he will find it to change his cognitive and emotive structures” (Szakos, 2014, p.510). As well, the interpretation of learning experiences could be based on the social and cultural context. Therefore, we can deduce we might have a large number of variables that creates the need for the learning process to be as individual as possible.

Eraut (2004) identifies four main types of activity that “gave rise to learning”: participation in group activities, working alongside others, tackling challenging tasks and working with clients. There are different forms that the learning activity can take, including “formal study, listening, observing, reflecting, practising and reining skills, trial and error, supervision or coaching, and mentoring”. (Eraut, 2004, p.267)

Whatever method the company uses, Eraut (2004) sees a triangular relationship between challenge, support and confidence. It is highly important and probably a success factor in learning that the employee feel confident about the support of their working colleagues. The feedback that he receives and the appreciation of the value of work transmit confidence and rise the commitment to learn.

For example, the theory of action learning is defined as cyclical processes done in team, based on learning-by-doing methods. The result should be “fostering of workplace learning in a way that the participants interpret working on a current project or problem as learning” (Eraut, 2004, p.514). By the fact that this method do not impose best practices or indicated working styles, it has a strong impact on the learning ability of an organization.

## **Learning guidance**

Referring to guidance, Vahasantanen et al. (2017) talks about helping the employees to reshape their professional identity and “clarify their work roles amid changes”. The professional identity refers to one’s own “professional history, expertise, future prospects and needs at work” (Vahasantanen et al., 2017, p.257). Clarifying the professional identity of the employees aims to empower them to make decisions about their potential future roles in the workplace.

## **Validation of the learning outcomes**

Generally, certifications or diplomas validate the organized learning activities. In the case of informal learning, it raise the question how to account and validate all the learning that it is not

structured. In the communities of practice model, Wenger shows that participation is essential, but also the reification process which means “the process of giving form to our experience by producing objects that congeal this experience into thingness” (as cited in R. St Clair, 2004, p.86) Therefore, the companies might monitor through different kind of validation methods the new skills acquired by the employees through informal learning.

### **Evaluation system for tracking the impact of learning**

Donald Kirkpatrick's, as cited in Knowles, Holton, Swanson (2011), identified 4 levels of evaluation for a learning program. First, the reaction evaluation, referring to answers for a program as it takes place, for being able to operate changes for the next session. Secondly, the learning evaluation, involves performance evaluation of what it was acquired through learning and it can be done by pre-tests and post-tests. The third level is behaviour evaluation, referring to the change in productivity or time-and-motion studies. The fourth level is results evaluation, including larger results such as turnover, costs, efficiency and others.

### **Success factors**

Therefore, from the scientific literature, I have identified potential success factors as follows:

#### **Adult education:**

- a good transfer of knowledge from the education process to the workplace settings
- using the learners experiences as the basis for the learning process

#### **Informal learning:**

- Learning processes also happen informally, outside the organized activities. Informal learning should be tracked and validated

#### **Learning culture:**

- The working environment should encourages experimentation, being tolerant to mistakes
- The perceived organisational support is essential in the learning culture
- The appreciation of the value of work transmit confidence and rise the commitment to learn

#### **Employees' motivation to learn:**

- Making the learners to understand the need for engaging in a learning process
- Raising awareness about the professional impact of adult learning

#### **Learning objectives:**

- The learning objectives and methods should be negotiated and personalized
- Learning objectives oriented towards real situations in the participants' jobs

**Learning guidance:**

- As the companies have a better overview of the market, the employees should be guided to become aware of their professional identity

**b) Public institutions**

In this second part of the chapter, I will analyse the vision of the public institutions about the success factors of lifelong learning. As the discourse about lifelong learning includes what public institutions are doing for fostering the lifelong learning, I find necessary to analyse how are they defining and measuring lifelong learning and the related concepts, comparing to the scientific literature.

In the public institutions area, there are several definitions of the lifelong learning, sometimes with differences for the focus, either on social aspects or economical aspects. The European Centre for the Development of Vocational Training defines the lifelong learning as following: “Lifelong learning refers to all types of learning, whether formal, non-formal or informal, undertaken by adults after they have terminated initial education and training, however far this process may have gone, whether they have acquired or not a certificate.” (CEDEFOP, 2011, p.20)

In Germany’s first strategy of lifelong learning from 2004, it was defined as “including all forms of learning – whether formal, non-formal or informal – taking place at different learning sites and extending from early childhood into retirement.” (BLK, 2004, p.26). The main development focuses in the Germany strategy are self-directed learning, development of skills, modularization, fair access and a new learning culture.

As we have seen in the first part of the chapter, there is a clear difference between non-formal and informal education. For CEDEFOP, the difference is as following:

Non-formal learning (..), it is intentional, aims at achieving certain learning outcomes and is generally not provided by a formal education or training body. It can be provided, for example, by peer workers through mentoring, by trainers working in the company or by external training providers. Informal learning results from daily working activities; it is embedded in working processes and tasks; it is not structured and typically does not lead directly to certification. (CEDEFOP, 2011, p.20)

The definition is following the definition offered by David Livingstone in the first part of the chapter and makes the same difference between intentionally and structured for non-formal, and spontaneous and not structured for the informal.

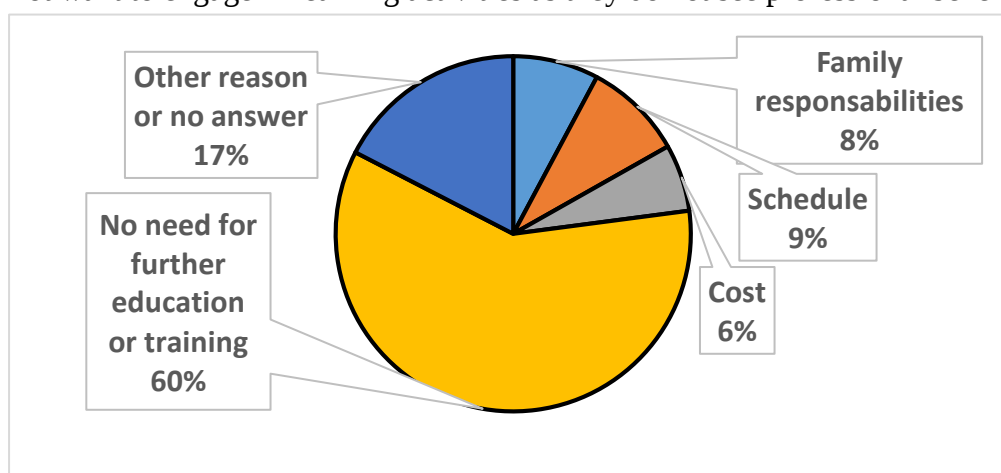
As it is defined in the literature, the learning culture of the workplace is a key driving element of the engagement in lifelong learning of the employees. According to CEDEFOP (2011), the jobs should be designed to stimulate new skills and to encourage the exchange of knowledge between employees through peer learning. A learning environment should offer not only continuous training, but also learning opportunities in the work processes. The learning process

depends on the design of the workplace in terms of stimulating the learning by offering autonomy and responsibility to the employees.

Although naturally, the lifelong learning is many times volatile and ad-hoc, the European Commission suggest that the structure and the planning are essential for strong results. In the workplace, the employees are learning by doing, from colleagues and superiors, from changing the position or by solving new challenges. Even this is true, the Commission is pointing: “It is important that the message about lifelong learning does not convey, “We all need to be engaged in substantive learning all the time”. This message could easily be seen as unachievable (...) it is periods of intensive learning which tend to be decisive for individuals career direction.”(as cited in CEDEFOP, 2011, p.18) Following the same idea, the European Centre for the Development of Vocational Training (2011) is showing that the informal learning must be connected with systemic, structured learning to have a significant impact for the employees.

According to CEDEFOP, the workers motivation to engage in learning activities might increase if the company is “bringing learning opportunities close to potential learners, at the workplace, on the job, through work practice itself” (CEDEFOP, 2011, p.51) In line with the literature from the first part of the chapter, we see the also the public institutions makes the difference between the classic processes of education and the adult education. From the literature I presented the andragogical model, and here CEDEFOP says that “the learning provision need to meet specific needs and circumstances, including appropriate learning and teaching approaches for adults” (CEDEFOP, 2011, p.51).

As we have seen in the Bounded Agency theory, the lack of desire to learn exists because people are not fully aware of the role changes and the professional pathway that they might have in the future. This is confirmed in the Eurostat (2016) statistics below, where we can see that 60% of the people answering do not believe they have need for further education or training. This is alarming and it is most probably connected with the fact that many employees do not want to engage in learning activities as they do not see professional benefits.



**EUROSTAT. Main obstacle to participation in education and training (Eurostat, 2016)**

According to CEDEFOP, lifelong guidance refers to “a continuous process that enables citizens at any age and at any point in their lives to identify their capacities, competences and interests,

to make decisions related to education, training and occupation, and to manage their individual life paths in learning and work” (CEDEFOP, 2011, p.99)

In the literature, Vahasantanen et al. (2017) talks about helping the employees to reshape their professional identity. The vision is similar, that on a long run, some employees might need big changes in their skills or even to acquire a range of new skills. For doing so, they need information and guidance. The company might have a larger perspective on the evolution of the jobs.

The European Qualifications Framework for Lifelong Learning, created by the European Commission (2012), has eight levels defined by a set of descriptors indicating the learning outcomes relevant to qualifications. Knowledge is described as theoretical and/or practical. The skills are described as cognitive involving the use of logical, intuitive and creative thinking and practical involving manual dexterity and the use of materials or tools.

The World Bank (2019), shows in the World Development Report that the recent decade’s jobs are being defined by more cognitive, analytical skills. It seems that one standard deviation increase in problem-solving skills is associated with 10-20 percent higher wage. As well, the ability to adapt quickly to changes is increasingly valued by many companies. In my research, I will analyse how the cognitive skills, central in many discussions about the future of work, are trained and measured in the lifelong learning strategies at companies’ level.

The Fourth European Working Conditions Survey selected five indicators to assess the extent to which workers can broaden their competences at work. For complexity of work and the need to acquire new knowledge: “solving unforeseen problems, carrying out complex tasks, learning new things, assessing the quality of own work, meeting precise quality standards”. (CEDEFOP, 2011, p.33)

The 2019 World Development Report shows that “flexible delivery models that fit with adult lifestyle and more systematic diagnosis of the specific constraints that adults are facing could improve the adult learning process” (World Bank, 2019, p.70). Moreover, the report shows that “creating emotional cues linked to learning content, such as goal setting, can improve the strategies of adult learning.” (World Bank, 2019, p.70).

In 2012, the European Council made a series of recommendations on the validation of non-formal and informal learning. First, the validation of the learning outcomes is seen as important for employability but also for increasing the motivation for lifelong learning activities. The Council recommended to the member states to include in arrangements for the validation 4 essential elements in non-formal and informal learning:

- “identification of an individual's learning outcome
- documentation of an individual's learning outcomes
- assessment of an individual's learning outcomes

- certification of the results of the assessment of an individual's learning outcomes” (European Council, 2012, p.3)

The European Council defines the validation as “a process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard” (European Council, 2012, p.5). Therefore, the validation of learning is essential for stimulating the employees. The validation is increasing motivation for learning and make the participants aware of the new competences that they have gained. In the same time, the validation process might be use as a measurement tool.

According to the European Commission (2014), regarding the assessment and recognition of learning outcomes, tests and examinations are the most used methods. In the private sector, the validation methods are based on certificates, qualifications or the use of references.

As I presented in the first part, Eva Szakos (2014) shows that the learning experience might be differently interpreted based on social and cultural context. In my research, I discovered huge differences between the numbers of people involved in lifelong learning activities in different countries. This creates interesting questions: how companies adapt their learning strategies in different countries? Do companies consider that the role of public institutions in promoting lifelong learning is important? Are they searching for collaboration with other public stakeholders and if yes, in what kind of initiatives?

The European Commission, cited by CEDEFOP (2011), suggested that for aligning the trainings better with the needs of the labour market, we need cooperation between employment services, social partners and training providers. For example, in the Eurostat table (annex), we can see the participation rate in education and training in the last 12 months in the European Union. As we can see, we have very different scores. In 2016, in Italy there are 41,5% of people answering that they have participated in education or training in the last in 12 months. In Denmark, there are 50%, as in the Netherlands, there are 64%.

Whether companies value and invest in training as a means to consolidate their business depends on a number of factors that also depends on the public sector. According to CEDEFOP, some of them are: “the national tradition for lifelong learning; how corporate responsibility in competence development is understood; policy frameworks, incentives and support services for employers; economic and labour market developments” (CEDEFOP, 2011, p.85)

| GEO                           | 2007 | 2011                | 2016                |
|-------------------------------|------|---------------------|---------------------|
| European Union - 28 countries | 35.2 | 40.3                | 45.2                |
| Euro area (19 countries)      | 35.8 | 44.6                | 48.7                |
| Belgium                       | 40.5 | 37.7                | 45.2                |
| Bulgaria                      | 36.4 | 26.0                | 24.6                |
| Czechia                       | 37.6 | 37.1                | 46.1                |
| Denmark                       | 44.5 | 58.5                | 50.4                |
| Germany (until 1990 former t  | 45.4 | 50.2                | 52.0                |
| Estonia                       | 42.1 | 49.9                | 44.0                |
| Ireland                       | :    | 24.4                | 53.9 <sup>(b)</sup> |
| Greece                        | 14.5 | 11.7                | 16.7                |
| Spain                         | 30.9 | 37.7                | 43.4                |
| France                        | 35.1 | 50.5 <sup>(b)</sup> | 51.3                |
| Croatia                       | 21.2 | :                   | 31.8                |
| Italy                         | 22.2 | 35.6                | 41.5                |
| Cyprus                        | 40.6 | 42.3                | 48.1                |
| Latvia                        | 32.7 | 32.3                | 47.5                |
| Lithuania                     | 33.9 | 28.5                | 27.9                |
| Luxembourg                    | :    | 70.1                | 48.1 <sup>(b)</sup> |
| Hungary                       | 9.0  | 41.1 <sup>(b)</sup> | 55.7                |
| Malta                         | 33.7 | 35.9                | 36.3                |
| Netherlands                   | 44.6 | 59.3                | 64.1                |
| Austria                       | 41.9 | 48.2                | 59.9                |
| Poland                        | 21.8 | 24.2                | 25.5                |
| Portugal                      | 26.4 | 44.4                | 46.1                |
| Romania                       | 7.4  | 8.0                 | 7.0                 |
| Slovenia                      | 40.6 | 36.2                | 46.1                |
| Slovakia                      | 44.0 | 41.6                | 46.1                |
| Finland                       | 55.0 | 55.7                | 54.1                |
| Sweden                        | 73.4 | 71.8                | 63.8 <sup>(b)</sup> |
| United Kingdom                | 49.3 | 35.8                | 52.1 <sup>(b)</sup> |
| Norway                        | 54.6 | 60.0                | 60.0                |
| Switzerland                   | 49.0 | 65.5                | 69.1                |
| North Macedonia               | :    | :                   | 12.7                |
| Albania                       | :    | :                   | 9.2                 |
| Serbia                        | :    | 16.5                | 19.8                |
| Turkey                        | 14.1 | 17.8                | 20.9                |
| Bosnia and Herzegovina        | :    | :                   | 8.7                 |

**EUROSTAT. Participation rate in education and training in the last 12 months, Age class 25-64. (Eurostat, 2019)**

On the whole, the definitions and approaches of the public institutions and semi-private stakeholders are following the lines from the scientific literature. The definitions are slightly wider and often point to the problem of access for more people to learning opportunities. Although social aspects are specified, economic reasons and employability seem to be the main purpose of lifelong learning.

The view of the public institutions offers a perspective about the differences between countries in terms of participation in learning activities. Yet, it remains vague how these stakeholders are measuring the success in lifelong learning. Overall participation in learning activities might not be enough.

According to Neufeind (2018), in Denmark, the government initiated the Partnership for Denmark's Future, inviting 32 members among which chief executive officers from large companies, entrepreneurs, academia and social partners. They have had several meetings including company visits, presentations of new analyses and conferences regarding the evolution of labour market. The initiative concluded two agreements about further training and unemployment benefits. The goal of the training agreement was to adjust the training in the companies with the needs of the digitalised workplaces.

Germany tried to increase the number of adults in higher education institutions through some initiatives especially for those in mid-life. The initiatives included more opened universities for those who have qualifications in VET or allow up to 50% from study being acquired non-

university. For example, with the ANKOM initiative, the government tried to implement the “Accreditation of Prior Learning” nationally. The recognition of competence was separated in 3 methods: blanket recognition independent of individuals, individual recognition and combined recognition. (Institut Arbeik und Technik, 2012, p.18).

The Bad Tölz Learning Regions is also an innovative example. A network organized there The Learning Festival (LernFest), which have gathered 38.000 participants in one day and big companies such as Audi and Sparkasse Bank have sponsored it. The activities included “vocational guidance entrepreneurship for youth, a transition management initiative and the development of a career guidance manual.” (Institut Arbeik und Technik, 2012, p. 18).

Another example is the “Projet de transition professionnelle”, initiated in France. The goal of the initiative is to “permet au salarié de s'absenter pour suivre une formation certifiante lui permettant de changer de métier ou de profession”. For this, “Le salarié bénéficie d'un congé spécifique” and “La formation demandée n'a pas besoin d'être en rapport avec l'activité du salarié.” (Service-Public France, 2019)

All those examples of public policies have inevitable impact for the private companies. Therefore, it is important to see how the private companies relates to this kind of public initiatives, what kind of impact they have on their strategies or what they would propose in addition to the relationship with public initiatives. I will analyse these aspects later in this paper

Comparing with the scientific literature, we can identify common success factors, such as the:

- validation is increasing motivation for learning and make the participants aware of the new competences
- using the learners’ experiences as the basis for the learning process
- employees should be guided to become aware of their professional identity
- learning objectives oriented towards real situations in the participants' jobs

As well, we can identify a certain difference or rather specifics coming from the public institutions dimensions. I would say the idea of inclusivity and broader participation in lifelong learning programs is rather an objective of public institutions than private companies.

In my opinion, the recommendations are quite broad, feeling the need for more data from companies and more concrete elements for the applicability of these principles within companies. There are not too many good practice recommendations. From this point of view, the present work can bring valuable data.

The partnerships between public institutions and private companies for lifelong learning strategies is a potential success factor that need to be documented. I will have data in this regard in the chapter presenting my interviews.

## **Conclusions of the theoretical framework**

In this chapter, I have set up the theoretical framework of the thesis. In the first part, I have defined the main concepts and theories related to the lifelong learning process by analysing the scientific literature. As well, I showed what is the state of the discussion on the main concepts. Doing so, I identified and listed potential success factors.

In the second part, I presented the perspective of the public institutions about the definitions and the measurement they used when referring to lifelong learning. Their perspective largely confirms the information found in the literature at the level of definitions and theories.

This fact also illustrates the potential importance of the collaboration between public stakeholders and private companies. It is also questioning the applicability of some of the success factors identified in the first part of the chapter, related to the work reality of the private companies.

The next chapter is dedicated to the interviews I conducted with two private companies. The purpose is to compare the information presented in this theoretical framework with data coming directly from companies that apply such learning strategies. By combining this information I will be able to answer my research question about which are the key success factors of lifelong learning strategies at companies' level.

According to the interviews, I will conclude after which success factors presented in the theoretical framework are also confirmed by private companies and which are contradicted. As well, I will procure new information, concepts and ideas from these interviews. This will provide us with up-to-date information on the subject and a clearer perspective on the applicability of these ideas.

### Chapter 3. Interviews with private companies

First company: **Solvay**

*Solvay is an [advanced materials](#) and specialty chemicals company. The company has 24,500 employees, is active in 61 countries with 115 sites. Interview with Linda Liu, Global Head of Learning at Solvay. Date of the interview: 18-03-2020*

Second company: **Deloitte**

*Deloitte is a consulting firm, offering value added services in audit, risk advisory, accounting, tax & legal, consulting & financial advisory services. Deloitte Belgium has more than 4,400 employees in 12 offices. Interview with Luc Lutin, Senior Manager – Workforce Transformation, Talent and Learning Advisory. Date of the interview: 18-03-2020*

I chose these two companies due to the experience that define them in their fields but also because they represent two diverse profiles: Solvay has both production processes and knowledge intensive processes, having different typologies of employees. Deloitte has extensive experience in helping various companies achieve the transition of the workforce.

The objective of my interviews was to obtain data from private companies on several levels. First of all, to compare the results of my desk research about the key success factors in lifelong learning strategies with data from companies, directly from people who are managing the learning activities. I tested the validity of my results, but also found different implementation paths.

Secondly, the goal of the interviews was to bring in my thesis new concepts and strategic approaches regarding the learning activities. The data from these interviews helped me to discover new success factors, as well as deepening the mechanisms behind some concepts and factors that I was already aware of.

*Information: because of the audio recording which is not always comprehensible, I modified certain words, without changing the meaning of the phrase.*

#### **a) The broad picture: the lifelong learning concept, the labour market challenges and the strategic approach**

##### **The lifelong learning concept**

I started my discussions asking the interviewees what their broad vision about the lifelong learning concept is. I searched to find out what are the main areas which they emphasize the most in the lifelong learning concept in their companies.

One of the main aspects for them was the need to adapt to a labour market where people are forced to *change jobs more often than in the past*. For Ms. Liu, it is especially the young generation who will have to do this shift constantly.

“People need to learn and re-learn through out their lives. Even for the young generation they need to change their career or their job 10 times or 12 times in the future, for my daughter generation, (..) born after 2000.” (Linda Liu, minute 2:00)

Moreover, for Mr. Lutin, the individual “growth mindset” seems to be essential in lifelong learning. He believes that the hall concept of the learning culture in a company is based on the “growth mindset” and the change of individual behavior for becoming a lifelong learner.

“I think the learning culture is definitely one of the foundations of a successful learning organisation. The culture it is a vague concept (..) the organisations that want to take that further they translate it into something that is more human (..) I see it transferred into the concept of a growth mindset. (*the concept*) It is not speaking about organisation as such, but it is speaking about how you as an individual need to change your behavior in order to become a lifelong learner.” (Luc Lutin, minute 3:40)

As well, we have not only individual behavior but also business reasons that make the companies investing in learning. Mr. Lutin talked about the concept of “*time to competency*”. This concept refers to a faster learning process which allows a better match between skills and tasks.

“Secondly, if I would look at the business reasons for learning, it starts with another notion which is the notion of time to competency; it means that in an ideal world, you would have zero time to competence; that means that if you start a job, you will know exactly how that job works and what you need to do, thanks to the technology would enable everything that you need to know just in time” (Luc Lutin, minute 5:45)

### **The labour market challenges**

I searched to find out what are the biggest challenges and trends in the labour market which creates the need of lifelong learning. For Ms. Liu from Solvay, *the impact of artificial intelligence* seemed to be the biggest challenge.

“I find it (AI) as huge impact. For example, many things in the process can be done by AI because AI has better memory than us, it can search faster in the database, it can do more analysing work for us (..) but we do not ignore the human part, because where we can find the needs, where is the potential opportunity this should be done by humans.” (Linda Liu, minute 39:00)

As well, Ms. Liu talked about an interesting issue, perceived as a challenge, namely the *new ways of working in the virtual teams*. The digitalisation of work made it easy for a team to be composed from people working from different geographical points, but with this opportunity, it also comes the challenges of a new style of work.

“In the past, we were working together face-to-face in the workshop or in the office. (..) For example, I have a team member in Dubai, but she supports all the learning management systems promotion world wide. The team leader also need to learn how to manage a virtual team. I am based in Shanghai, but my team is everywhere.” (Linda Liu, minute 3:40)

In our discussion, Ms. Liu identified that the remote management concept created by the digitalisation requires a good understanding of the cultural differences and a specific mindset. “The manager needs to understand the different cultures. The mind set should be very open to understand the cultural differences, the beauty of diversity; also, to have the awareness of all product buyers.” (Linda Liu, minute 27:35)

As from Mr. Lutin, he also talked about the disruptions in the labour market which companies are going through nowadays. In his opinion, these transformations are caused by the *digitalisation and the functional changes*. These changes will force some of the employees to retrain, and at the same time, companies will have to readjust themselves to the new companies that create competition.

“Look at Fintech for example, it is a good example of how the existing banks will fully digitalize and there are new banks that are rise next to the traditional banks. That means that the workforce that you have today in this banks it could be reskilled to adress working in a more digital environment. There are also fonctional transformations happening. For example, the finance fonction (..) activities like inputting invoices or client data (..) can be automised in the future.” (Luc Lutin, minute 7:20)

### **The strategic approach**

On the aspect of the strategic approach, I found that the main philosophy used by Solvay it is the *self-directed learning*. Therefore, the responsibility of identyfing the learning needs starts with each employee, who is encouraged to have a pro-active attitude.

“For us, the strategy is to promote the self-directed learning. We want to let people to try their development, with a strong support from their line managers (..) For example, blended learning, online and offline, not only relied on face-to-face training.” (Linda Liu, minute 6:28)

Ms. Liu also described the mechanism of a theoretical case, where the employee would like to set up a learning activity for its needs. As she exemplifies, the core responsibility is directed to the employee, but the line manager approval is also essential. It is important to note that Solvay has a learning system where the employees can finds learning opportunities on a variety of topics, many of them being free.

“Supposing I am the employee and I have a learning need. I think I need to, for example, to develop crisis management. Then, I will talk to my manager, I will let him know why I want to learn crisis management and where I can implement crisis management in my daily work. I will also do the homework by myself to go to the learning management system to search the existent resources and the price (..) I really need his comments and approval. In the learning system many thing are free, you can do it by yourself and then you need just to let your manager to know you allocate some time for that.” (Linda Liu, minute 36:51)

Another important aspect is the vision of the goal on short-term and long-term that Linda talked about. According to her, even if the *short-term objective* is the performance, on *long-term*, the goal is to ensure employability even if the respective employee will not work for the same company.

“We really need to think about short-term and long-term. Short-therm is for your performance improvement in the current position and long term is really for your own career aspiration, for the further 5 to 10 years.” (Linda Liu, minute 7:30)

Mr. Lutin explained that more and more companies are starting to use a strategic approach when they are planning their workforce transformation. This means that companies started to analyse what are the profiles that will be searched in sa few years on the labor market, what

profiles do they already have in their company that can be re-profiled in that direction, and what learning process should be applied for this.

“We see a huge update in the last years in terms of what we would call a strategic workforce planning. This is assessing your current organisation, people that are working in your organisation (..) for the skills that they have today but also knowing what your company will need in 5 years from now. You need to identify today the type of people that you can reskill to become that new role in the future.” (Luc Lutin, minute 10:14)

The next part of the interviews is structured based on the success factors that I identified in the second chapter. As I used the method of semi-structured interviews, new elements and concepts occurred.

## **b) Success factors**

### **Learning objectives**

As I identified in the theoretical framework, the expectation of personal success in the educational activity can influence the decision to participate. Therefore, the employees should be involved in the setting of the learning objectives and activities, even with personalized objectives. Indeed, Ms. Liu confirmed as well that they encourage the dialogue with the employees about their learning needs.

“Every December to January, people discuss their performance appraisal with their line manager, and from January to March, the people will start a dialogue with their manager about their development plan.” (Linda Liu, minute 8:45)

We can see at Solvay a very *decentralized mechanism* of setting the learning objectives. The relation between the employee and the line manager is essential in setting the learning objectives, as Linda described.

“The direct support is from the HR BP (*business partner*) and their line manager. Because HR BP and the line manager understand more the employee’s current situation and its performance. And then, the learning will go into the system to see the transversal needs. The dialogue is between the manager and the employee, with the involvement of the HR BP if necessary.” (Linda Liu, minute 9:30)

Although Mr. Lutin identified as well consulting the audience as a best practice in learning activities, it seems that the reality and the specifics of the industries impose *rather a top-down direction* of the learning objectives. For him, this part falls into the responsibility of a learning or talent manager, who should adapt the top-down objectives to the audience.

“Typically, there is a compliance learning, top down, because you need to meet different requirements. We do see that there is also a move happening today, but not many companies (*do this*), to try to personalize the learning using the data about compliance issues with certain target groups, and trying to do it more individual.” (Luc Lutin, minute 12:30)

## Learning guidance

As I noted in the second chapter, the lack of desire to learn, exists also because people are not fully aware of the role changes and the professional pathway that they might have in the future. This changes might be also called the professional identity. Therefore, many employees need learning guidance as the company has better awareness and it could better identify the trends in the market.

The first remark on this issue was a differentiation between age groups, with the young generation paying more attention for the professional identity.

“I think the opportunities only for the people who are ready. I think nowadays for the young generation (..) you have more self awareness about what is my future, how its look like, what is my next career steps in the company.” (Linda Liu, minute 11:18)

For Solvay, one of the main aspects of the guidance is the *learning by experience*. Using methods such as the job rotation, they are facilitating both the earning of new skills and the awareness of different roles and possible changes. Furthermore, the job rotation also facilitates the easy transition from one position to another and a bigger pipeline for successors.

“They will have regulate dialogue with their manager and HR BP to clarify this and also for search for internal opportunities, for job rotation (..) The employees can access the platform about the internal opened positions. (..) The rotation is learn by practice. To learn new things and also to encourage the employees to always thinking about peer sharing, peer coaching. If you want to move to a new position you need to have a succesor in the pipeline for you, right?” (Linda Liu, minute 11:35)

Mr. Lutin exposed a similar narrative, encouraging the *individual responsibility*. It looks like the companies are not very open to be responsible for a long-term guidance process for their employees. The learning guidance concept comes from the idea that the companies have a broader perspective of the labour market offered by their access to industry insides and the ability to detect trends. I am not saying that I see a total refusal from the companies, but it seems that the employees who do not have the initiative to find out what they should learn to stay competitive in the labor market are not very likely to be guided by the company.

“I think first and for most, it is an individual responsibility to reflect on your own career, but it is responsibility of the organisations, the society and the community to really help people growing in a certain direction and offer opportunity to grow.” (Luc Lutin, minute 18:45)

## Employees' motivation to learn

In my interview with Mr. Lutin, he identified the *design of the learning activity* as essential in motivating the employees to participate. He believes the formal learning do not create enough learning and that the new design methods, such as the *gamification and or virtual reality* could be the solutions. I tend to disagree with Mr. Lutin on this issue. I believe it is biased to assume that all social and age categories would prefer this type of methods. In the same extent it is unclear whether these methods can be used in many areas of activity.

“The fact that people are not motivated to go for formal learning, it has to do with the level of engagement of this formal learning. The formal learnings are often very boring, not very

engaging. We see that some companies are really taking next steps in terms of applying gamification concepts or virtual reality type of learning. That for me in terms of upgrading the experience in terms of formal learning it is a must have for organisations.” (Luc Lutin, minute 20:33)

Moreover, Mr. Lutin explained how the companies should adapt the engagement and the relevance of the learning. He talked about a learning structure that takes individual knowledge into account, trying to to personalize the content for raising the relevance of the activity.

“If you are going on a two days project management course but you already have some knowledge about, half of the course might be boring for you. In order to personalized learning, it would be much better to restructure your courses (..) so you really have a new design for increasing the engagement and the relevance.” (Luc Lutin, minute 21:25)

Ms. Liu explained that nowadays, in the learning design, the company is very learner oriented. They use a “*learner personas*” before starting the program, meaning they take into account many dimensions and details to find out what is the best way to learn for a certain person or group. In the same time, the learning process should start from the employee. The need of learning must be very clear and it must be approved with the manager, in accordance with the KPI’s.

“Our strategy is self-directed learning, the learning needs is really from the employee. It could be nominated by the manager, but the employee and the manager need to be in alingment for the KPI’s (*key performance indicators*), for improvement. When you learn something new, you need to have a very clear objective.” (Linda Liu, minute 13:47)

## **Learning culture**

Analysing the essential factors of a lifelong learning culture, a first element identified in our discussion was the applicability of the content. In other words, in accordance with the andragogy theory described in the second chapter, the adults learner need to know clearly what is the purpose and the utility of the learning process.

“The successul learning culture is based on several things. First, (..) if people learn, they can immediate practice in their daily work. People will have the question mark in their mind, what is the relevance with me? Why I need to learn that? We need to be very clear about that.” (Linda Liu, minute 15:28)

As well, Ms. Liu noted that it is very important for the learning design to be very learner oriented. This idea can be connected with the idea of personalized learning needs. As well, it is a factor of motivation, not only of efficiency. A positive learning experience, usually, creates a positive premise for other learning experiences.

“The second, the learning design should be very learner oriented (..) this group of people, what is the best way for them to learn?” (Linda Liu, minute 15:40)

The learning culture does not stop when the learning activity stops. Ms. Liu described the *follow up part* as “*very critical*”. The learning culture involves a solid evaluation part, based on monitoring the improvement and offering feedback.

“A very critical part is the follow up after the learning. It is not only learning and then you forget it, so you really need to continue to monitor and to give feedback to the learners, and to appreciate their improvements.” (Linda Liu, minute 15:50)

The follow up process is a complex and long term process especially when it involves a behavior change. For Solvay, the process involves a “before training” assesement, an “after training” assesement but also a long term evaluation in which the manager plays an important role in observing the changes.

“We also have an assesment after 3 or 6 months, to get the feedback from the line manager, ‘did you discovered the behavior change of this learner or not?’” (Linda Liu, minute 21:17)

As for my interview with Mr. Lutin, on the learning culture concept he identified the need for companies to really facilitate the access to the learning activities. *Participants' availability* is a key element in creating a learning culture, so we need to dedicate specific time only to learning activities. In this regard, Mr. Lutin offered a good example from the UK, where many companies adopted the concept of a learning week, dedicated exclusively to learning activities, both online and offline, to make sure that participants have time and access.

“An initiative in the UK, a good practice I think, it is what they called the concept of a learning week. A learning week is a global initiative focused solely on learning. What is key in making that work is that you have a program that offered both digital and classrooms, but also creates support from your leaders to actually make people available to go to this type of sessions during one week.” (Luc Lutin, minute 24:11)

Mr. Lutin introduced a new concept in our discussion, called “*learning in the flow of work*”, which he sees essential for the future of learning. Accoding to Josh Bersin, the founder of this idea, the concept refers to the use of techonology to “embed learning into the platform in which they work”, with the purpose to “promote and recommend learning whenever they open an opportunity, or suggest simple videos or tips”. (Josh Bersin, 2018)

Basically, Bersin (2018) talks about short and very targeted learning solutions which are “designed to deliver an outcome”. Therefore, he proposed that in the platforms that we already using, to have conversational interfaces, which combines tools such as “search, video, recommandations” with “designed repetition, practice, and competency-driven recommendations”. (Josh Bersin, 2018)

### **Informal learning and the validation processes**

As we have seen in the theoretical framework, the learning processes also happen informally, outside the organized activities. To quantify this form of learning, Ms. Liu refers to several indicators. Firstly, the *employee's behavior and performance*. It is mainly the responsibility of the line manager to observe changes in these respects. Secondly, the feedback from external partners, such as the clients or different colaborators.

“First, it is really to see his behavior in the daily work. Then, also to check his performance. Second, it is really through the feedback from others, external customers and across fonctions colaborators.” (Linda Liu, minute 24:05)

Mr. Lutin shared as well a very interesting perspective from his experience with the private sector. Referring to the validation processes for the new skills accumulated by employees, it seems that some companies are already starting to use *technologies such as blockchains* to streamline the validation of competences through a common database to which several employers have access and which attest the certificates obtained by employees. This method can be considered an innovative and successful factor.

“For validating skills it is using the blockchain technology. The benefit of blockchain is that it has distributive ownership of the data (..) it has been applied in Irish bank industry where they set up a system that uses blockchains across different banks in Ireland to gather certifications that people need to have. It would allow to individuals to transfer certain certifications also to their new employers (..) It is a central database managed by the crowd actually.” (Luc Lutin, minute 28:00)

Moreover, Mr. Lutin pointed out the importance of proving the real value of the learning activity. He introduced *the concept of the net promoter* which generally refers to how likely it is for a client to recommend to a partner, friend or colleague the services of the company he used. As in the case of the learning activities, the net promoter concept can be used to show how satisfied were the participants with the content of the activity.

“It is important to be able to track the after parts, to prove actually the value of learning. In the past, this value has been evaluated with the happy sheets, the smile sheets, the catering was great, the speaker was properly dressed, but they did not go about the content (..) the net promoter concept is an easy way of evaluating a success of a learning journey.” (Luc Lutin, minute 31:45)

### **Partnerships with public institutions**

Regarding the opportunity to collaborate with the public institutions programs as a success factor, it does not represent a relevant element for Solvay and Deloitte. We can't draw a conclusion only from two interviews, but the two companies I talked to did not use public programs for the learning activities.

“We need to identify whether it has very closed relevance with the current situation (*of our employees*). People can access the public learning resources by themselves, but we do not have a very strong collaboration with the government.” (Linda Liu, minute 29:40)

As I identified in Eurostat statistics on adult education, the adults' participations in learning activities varies in EU countries. Ms. Liu underlined as well the existence of cultural differences which a company needs to take into account when adapting the learning activities.

“For example, in Asia and in North America, people are more welcome to learn; so people are used to learn digitally, virtually, by themselves, it is a normal habit. But if you check with the European countries, some countries do not even think e-learning and digital learning is an official learning. (..) We need to adapt to the culture. We have a learning network in each country and they will share with us the local situation, and we try to support them in transversal needs as much as possible.” (Linda Liu, minute 31:42)

### **c) The outcomes of the interviews:**

The data obtained from these companies help us to better understand the challenges of the labour market, such as the impact of the digitalisation and artificial intelligence, the globalisation and the functional changes. Here we see a similarity with the information presented in the first chapter but now we have a clearer picture of the applicability of these trends.

The impact of these trends on companies and employees consists of the possibility that artificial intelligence performs better than people in a series of tasks. We also talk about new styles of working and coordinating a team, often in the virtual environment. Last but not least, the digitalisation causes functional changes and forces a large part of the employees to reskill and upskill, being needy to reorient or switch to another function.

The data obtained directly from companies that apply lifelong learning strategies confirm a number of success factors that I have identified in this paper: the strategic approach of the learning activities, the personalization of learning processes, the importance of the learning culture, the verification of knowledge transfer in the workplace.

Largely, for these concepts, the information within the theoretical framework is confirmed, with some differences. For example, the personalization of learning plans is not yet widespread, but both managers have recognized the value of this concept. I also obtained details on the applicability of the concepts mentioned above.

For instance, in the learning culture discussion, we found elements of applicability such as the design of the activity which must be learner oriented, the follow-up process that needs to be repeated after a longer period so that the manager can see if the desired changes have happened, as well as the element of the availability of participants, when the company offers them an exclusive time for learning activities.

Comparing the two companies, we can see some similarities. One of the most important is the importance they attach to the individual responsibility of the employee to seek learning opportunities. As well, their opinions are the same for the biggest challenges in the labor market, digitalization and artificial intelligence. Moreover, it seems that they have the same vision about the importance of the design of the learning activity, which has a big role in motivating the employees but also in the quality of the activity.

On the other hand, we do not have conflicting opinions in the two interviews, but we have different information on the same subject. For the validation of the learning process, Ms. Liu described a process in which the line manager has the responsibility to observe behavioral and performance changes for an employee who participated in learning activities. Mr. Lutin describes the same process through an automation technology (blockchains) that validates learning outcomes at the interprofessional level. The information is complementary and it creates an overall image, both at the company level and at the wider level.

These interviews introduced a number of new concepts and best practices into my work, such as the learner personas, the time to competency concept, the net promoter, the learning in the flow of work, the learning week and the use of new technologies as the blockchains. These new ideas offer a broader understanding of the internal approaches that influence learning strategies, but also provide good examples of the applicability of the theoretical part.

These new concepts bring us up-to-date information about what some companies are doing in this field. The concepts can serve as recommendations and can be taken as success factors. It is a net gain of this chapter that new and valuable information has been added to the information found in the specialized literature.

At the same time, these data contradict a number of factors that I identified to be successful within the theoretical framework, such as the learning guidance which for the two companies is rather an individual responsibility than one of the company. This does not necessarily mean that the two companies are right and the information within the theoretical framework is not true. The concept of guidance is based precisely on the fact that individuals cannot have the same information as the companies. A company can more easily estimate market trends because it has inside information through its activity.

As well, these data contradict the idea of the partnerships with the public institutions, which do not appear to be relevant to these two companies. Because we are talking about only two companies we cannot draw a conclusion on this idea. I think this topic deserves more attention as EU policies will further influence companies, including the transition of the workforce. We see that initiatives such as the European Green Deal will involve in the future great efforts from companies, focused on upskilling and the transition of the workforce towards a sustainable, digital and green economy.

As I find this topic very important and I believe that the policies of the European Union will increasingly influence the private companies in the future, I will devote the following chapter to the analysis of the policy framework of the European Union on the lifelong learning topic.

#### **Chapter IV. The European Union policy framework on lifelong learning**

The goal of this chapter is to describe the policy framework of the European Union regarding the lifelong learning, as many EU initiatives have impact also for the private companies and for their workforce. Through policy framework I will refer to the main procedures, goals, policies and initiatives that EU have had on the lifelong learning topic.

##### **a) Lifelong learning in EU context**

Although the discussions about a common vocational training policy and necessary skills for employment existed in the European Community since the 1970s, the Maastricht Treaty of 1992 started the cooperation on education policies for the EU. (Milano, Holford, 2014, p.19)

Traditionally, the education was considered as a national affair, “closely related with each country’s history, political system and location” (Milano, Holford, 2014, p.64). However, the increasing economic global competition created a more European approach, also called Europeanisation. This concept is defined by Claudio Radaelli as follows:

Europeanisation consists of processes of a) construction, b) diffusion and c) institutionalisation of formal and informal rules, procedures, policy paradigms, styles, ‘ways of doing things’ and shared beliefs and norms which are first defined and consolidated in the EU policy process and then incorporated in the logic of domestic (national and subnational) discourse, political structures and public policies. (as cited in Milano, Holford, 2014, p.56)

Klatt, as cited by Milano, Holford (2014) explains that the EU decision-making systems is defined by three key institutions: the European Council, the European Commission and the European Parliament. The European Council, gathering the Heads of state or government has the role to provide strategies, setting the main lines of the EU policies. The European Commission initiate legislation but also it controls the implementation of the European legislation and European public projects in different areas. The European Parliament has a main role in the legislation, being able to “accept, amend, or reject the vast majority of EU law.”

One of the first official EU documents that consacrates the importance of lifelong learning is “A Memorandum on Lifelong Learning”, issued in 2000, stating that “the move towards lifelong learning must accompany a succesful transition to a knowledge-based economy and society.” (Borut Mikulec, 2018, p.137) The document promotes two essential goals: active citizenship and employability.

According to Panitsides and Anastasiadou, the dominant objective of EU policies regarding lifelong learning is “restoring its competitiveness in the globalized economy”. Therefore, the goals of the policies are “providing the right mix of skills” and “ensuring that individuals can adjust their skills to the labour market needs”. (Panitsides, Anastasiadou, 2015, page 33)

## **b) Policies, initiatives and tools**

### **Overview tabel**

| <b>Document</b>                                                                     | <b>Institution</b>            | <b>Year</b> |
|-------------------------------------------------------------------------------------|-------------------------------|-------------|
| Lisbon Strategy                                                                     | European Council              | 2000        |
| European Report on Quality Indicators Lifelong Learning                             | European Commission           | 2002        |
| The European Qualifications Framework                                               | European Commission           | 2005        |
| Adult Learning: It is Never Too Late to Learn                                       | European Commission           | 2006        |
| Resolution on Adult Learning: It is Never Too Late to Learn                         | European Parliament           | 2008        |
| Strategic Framework for European Cooperation in Education and Training              | Council of the European Union | 2009        |
| Resolution on a Renewed European Agenda for Adult Learning                          | Council of the European Union | 2011        |
| An Agenda for new skills and jobs – A European contribution towards full employment | European Commission           | 2011        |

|                                                                                                                                                        |                     |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------|
| Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (ET 2020) | European Council    | 2015 |
| New Skills Agenda for Europe                                                                                                                           | European Commission | 2016 |
| The European Green Deal                                                                                                                                | European Commission | 2019 |

In 1996, the EU declared the “European Year of Lifelong Learning”, aiming to “draw attention to the need for cooperation, especially between education and training structures and the business community”. The “European Year of Lifelong Learning” created 550 projects, “encompassing 5,000 events (publications, conferences, seminars, and the like)” (Panitsides, Anastasiadou, 2015, page 39)

The Lisbon strategy, adopted by the European Council in 2000, “established a single framework for policy cooperation as a basis of reference for all education and training activities” (Panitsides, Anastasiadou, 2015, page 23) This framework is known as the Open Method of Coordination (OMC) and it has define the main action of the EU for the lifelong learning area. The OMC includes “benchmarks, guidelines, reference tools, frameworks, communications, conclusions and recommendations” (Panitsides, Anastasiadou, 2015, page 61).

According to Rasmussen, as cited by Panitsides and Anastasiadou (2015), in the European cooperation there are two main forms of governance, the supranational method, based on supranational decision-making and the intergovernmental cooperation, “based on negotiations of common interests among the members states.” The OMC represents a “mixtures and combinations in between these two extremes.” This way of governance is also defined as “soft governance”, which refers to influencing “national policies through the articulation of common targets, the collection of comparable data on key indicators and the joint priorities, which support constant comparison and the possibility of peer pressure.” (Panitsides, Anastasiadou, 2015, page 26)

For example, the “European Report on Quality Indicators of Lifelong Learning” have been published in 2002 by a group that “includes representatives from 34 European countries, the OECD and UNESCO. Various Commission services, such as Eurostat and DG EMPL, together with Cedefop and Eurydice have also been represented in the group.” The indicators are structured in four areas, as follows:

*“Skills, Competencies and Attitudes:* literacy, numeracy, new skills in the learning society, learning-to-learn skills, active citizenship cultural and social skills

*Access and Participation:* access to lifelong learning, participation in lifelong learning

*Resources for Lifelong Learning:* investment in lifelong learning, educators and training, ICT in learning

*Strategies and System Development:* strategies of lifelong learning, coherence of supply, counselling and guidance, accreditation and certification, quality assurance” (European Commission, 2020)

In 2005, the European Commission adopted the European Qualifications Framework (EQF). The main objective of the EQF was “to facilitate the transfer and recognition of qualifications held by individual citizens (whether attained through non-formal education or informal learning) by linking qualifications systems at the national and sectoral levels and enabling them to relate to one another.” (as cited in Panitsides, Anastasiadou, 2015, page 42) As well, the EQF aimed to facilitate the mobility for work and studies, using tools such as the Erasmus programme, the European Credit Transfer System and Europass.

The Europass is a tool that aims to “help citizens to communicate their skills and qualifications effectively when looking for a job or training”, as well “to help employers understand the skills and qualifications of the workforce” (Europass, 2020). The Europass includes the European CV and the Certificate Supplement, but also the Diploma Supplement, the Europass Language Passport and the Europass Mobility. The last of them aims “recording work placement experiences abroad, as part of an education or training initiative” (Europass, 2020)

The European Commission launched in 2006 the document called “Adult Learning: It is Never Too Late to Learn”, followed by an action plan for implementing the Lisbon strategy and the “Education and Training 2010”. The goals of the document were: “1) increase the participation of stakeholders in adult learning, 2) strengthen the ‘culture of quality’, 3) implement systems for validation of nonformal and informal learning, 4) ensure sufficient investment in the education and training of older people and migrants and 5) ensure the quality and comparability of data on adult education” (European Commission, 2006, p.6-9)

Following the initiative of the Commission, in 2008, the European Parliament adopted the “Resolution on Adult Learning: It is Never Too Late to Learn”, declaring adult learning a political priority, as well saying that adult learning needed “concrete and adequate programmes, visibility, access, resources and evaluation methods.” The resolution focused on “improving adult’s motivation to participate in learning” (European Parliament, 2008, p.2)

In 2008, the European Commission launched the “New Skills for New Jobs” initiative which aims “bridging the gap between education and work by promoting better anticipation of future skills needs”. The initiative use the concept of flexicurity, meaning “flexible and reliable contractual arrangements, comprehensive lifelong learning, active labour market policies and modern social security systems.” (as cited in Panitsides, Anastasiadou, 2015, p.29)

Another important tool of the EU is the European Social Fund (ESF), which aim to “strengthen economic and social cohesion by improving employment and job opportunities.” by employment related projects, both for public and private stakeholders. In 2007, the ESF through the programe “Investing in people” spend 34% of the funds for improving human capital and 30% for improving access to employment and sustainability. In the period 2000-2006, 22% of the ESF was allocated for lifelong learning activities. (as cited in Panitsides, Anastasiadou, 2015, p.30)

In 2009, the Council of the European Union adopted the “Strategic Framework for European Cooperation in Education and Training”, setting as a main goal “making lifelong learning and mobility a reality”, as well as “improving the quality and efficiency of education and training”.

These objectives represent the base of the “Education and Training 2020 Strategy”. (as cited in Panitsides, Anastasiadou, 2015, page 31)

In 2011, the Council of the European Union adopted the “Resolution on a Renewed European Agenda for Adult Learning”. The resolution proposed to contribute to several goals, among which:

- “developing a new approach to adult education based on ‘learning outcomes and learner responsibility and autonomy’;
- fostering greater awareness among adults that learning is a lifelong endeavour;
- developing ‘effective lifelong guidance systems’ and systems for the validation of nonformal and informal learning;
- raising awareness among employers that ‘adult learning contributes to promoting productivity, competitiveness, creativity, innovation and entrepreneurship’ (as cited in Mikulec, 2018, p.138)

In the same year, the EU launched the initiative “An Agenda for new skills and jobs – A European contribution towards full employment”, connected with Europe 2020 strategy. In this initiative, the European Commission talks about “Enhancing stakeholders' involvement and social dialogue on the implementation of lifelong learning”. The Commission noted that the partnerships between different stakeholders, such as public institutions, employers and training providers “can effectively identify training needs, improve the relevance of education and training, and facilitate individuals' access to further education and training”(European Commission, 2011, p.9)

The Lifelong Learning Programme 2007-2013, created by the European Council and the European Parliament, aimed to “encourage reciprocal exchanges, cooperation and mobility between training and education systems of the European Union's member states”. The programme was structured into sectorial subprogrammes, namely Comenius, Erasmus, Leonardo da Vinci and Grundtvig. The last one “aimed at providing adults with ways to improve their knowledge and skills, keep them mentally fit and potentially more employable” (as cited in Clain, 2016, p.23)

The programmes evolved and created subprogrammes in their turn. For example, the Erasmus programme created the Erasmus Pro, which is “a policy initiative aimed at increasing long-term mobility abroad, for Vocational Education and Training learners, including apprentices or recent graduates” (European Commission, 2020). This initiative can be directly accessed by companies and VET stakeholders.

In 2015, the “Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (ET 2020)” noted the new priority areas for 2020. Among them, the report mentions “Relevant and high-quality knowledge, skills and competences developed throughout lifelong learning, focusing on learning outcomes for employability, innovation, active citizenship and well-being”, but also “Inclusive education, equality, equity, non-discrimination and the promotion of civic competences”. (Official Journal of the European Union, 2015, p.2)

For achieving this goals, the EU proposed in this report different working methods such as *Progress monitoring* “in cooperation with Eurostat, Eurydice network, Cedefop, OECD and other organisations”. As well, for achieving *Stronger links between education, business, and research*, the “engagement with stakeholders will also be stimulated through the Education,

Training and Youth Forum, the European University-Business Forum, the VET-Business Forum and Thematic Fora in Member States.” (Official Journal of the European Union, 2015, p.3) Likewise, the report mentioned as methods: working groups, peer learning activities, dissemination of good practices and the Education and Training Monitor for update the policy debate at EU level.

In 2016, the European Commission launched the “New Skills Agenda for Europe”. The agenda “is a package of measures to bring improvements in three areas: 1. Basic competences, 2. Visibility and comparability of competences, 3. Labour market and skills intelligence to facilitate effective career decisions in the fields of education, training and (un-)employment” (as cited in European Parliament, 2017)

Regarding the “New Skills Agenda for Europe”, the European Council made a series of recommendations, focusing on the adults group which generally does not access lifelong learning programs, being at risk of exclusion from the labor market. The Council recommended to “Offer adults with a low level of skills, knowledge and competences (..) access to upskilling pathways”. As well, the Council recommended to “take also into account the gender, diversity and various sub-groups in the targeted population” (Official Journal of the European Union, 2016, p.4)

The Digital Skills and Jobs Coalition was launched in 2017 by the European Commission. It brings together Member States, companies, social partners, non-profit organisations and education providers, who take action to tackle the lack of digital skills in Europe. According to the European Commission (2020), in the last 3 years, 7 million EU citizens were trained in the programs of this initiative.

With the launch of the European Green Deal in December 2019, the EU has assumed a new growth strategy for the next decades. As it says, “It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.” (European Commission, 2019, p.2)

This strategy has such a magnitude that will fundamentally affect many aspects of society, including learning activities in companies. We can only assume at the moment, but what is clear is that the European Union is already talking about the transition to the digital and green economy as the main objective including in the learning documents, such as the Updated Skills Agenda. Millions of employees will need reskilling or upskilling for ensuring this transition.

### **c) Social and economic values**

In a study analysing 50 policy texts of the EU from 2000 to 2014, the authors noted that the pivotal role of the lifelong learning policy at EU level was based on the scope of economic growth. In the same time, the lifelong learning “contribution to social justice and personal fulfilment tends to be growingly perceived as of secondary importance” (Panitsides & Sofia Anastasiadou, 2015, p.135)

By analysing 9 important EU policy documents on lifelong learning, including some the ones described by me above, Mikulec showed that the most expressed values are:

The economic values of employability (appears 34 times), innovation and mobility (29), competitiveness (16) and efficiency (14); the social values of social inclusion (18), social cohesion (16), equality (12) and equity (10); the political value of (active) citizenship (34); the cultural value of diversity (15); and the personal value of personal development or fulfilment (14) (Mikulec, 2018, p.140)

We can see that values referring to economic growth and employability dominates the set of values promoted by the EU. Moreover, some humanistic values traditionally associated with the education process have been replaced with terms that have an economic rather than social connotation. For example, Mikulec noted that

The value of emancipation has been replaced with the value of empowerment; while the first one is associated with collective transformations and a recasting of the democratic, social and cultural goals of communities, the latter is connected to the empowerment of people as consumers and their individual capacity to adjust to contemporary social needs. (Mikulec, 2018, p.140)

In this context, Mikulec (2018) suggests the concept of knowledge has been changed into more specific concepts according to the needs of the economy, such as “competences, skills and learning outcomes”. Peters believes that this type of knowledge represents “information that is impersonal, instrumental and decontextualised”, ignoring the “broader intellectual, aesthetic, moral and social development of the adult” (as cited in Mikulec, 2018, p.143)

On the other hand, Mikulec noted, if the adult education “was supposed to address a range of crises” in the society, we have seen that some of the problems “were simply too lofty for education to meet” (as cited in Mikulec, 2018, p.144). As Stromquist noted, “education and schooling have been overestimated as pillars of social change” (as cited in Mikulec, 2018, p.143). Therefore, the adult education should be connected with “wider economic, political and psychological conditions” to perform the function of emancipation.

One of the main assumption of the EU lifelong learning policies is that “the adults who invests in lifelong learning will be rewarded in the labour market”, meaning that “more education will contribute to the individual’s better employability”. The problem with this narrative, according to Mayo, is that “the accountability for problems such as structural unemployment is shifted from the state or the EU level and placed on the individual’s shoulders” (as cited in Mikulec, 2018, p.145)

### **Conclusive features of the EU policy framework:**

-The EU is a normative power in terms of education policies; through the Open Method of Coordination it created a broad framework composed by recommendations, guidelines, reference tools, benchmarks and communications; the EU encouraged the member states to create national strategies using these references.

-The main objectives and values promoted by the EU lifelong learning initiatives and policies are the economic ones, such as employability, competitiveness and innovation; secondary, they also promote life skills such as critical thinking, active citizenship and social values such as integration, equality and democracy.

-In the lifelong learning framework, the EU developed several tools and programmes, such as The European Qualifications Framework, the Europass, the European Credit Transfer System, the Grundtvig programme, the Erasmus Pro programme;

-The EU encourages individual responsibility for participation in lifelong learning activities; likewise, but not very active, the EU tries to foster partnerships between public institutions and private companies for better access and quality of lifelong learning in the European space;

-The impact of some initiatives can also be measured in figures:

- 7 millions citizens trained in the Digital Skills and Jobs Coalition (European Commission, 2018)
- 115 million CV's created through Europass (Europass, 2020)
- 860,000 people in training mobilities in the Leonardo da Vinci programme (Publication Office of the European Union, 2012)
- 8,7 million obtained additional qualifications thanks to European Social Fund support for education and training (European Commission, 2016)
- 650,000 VET students in Erasmus+ mobilities (2014-2020) (European Commission, 2020)
- more than 150 Sector Skills Alliances set up by 2000 vocational Education and Training providers and enterprises (European Commission, 2020)
- 500,000 participants in Grundtvig programme on adult education (European Commission, 2010)

Related to the data from the interviews of the chapter 3, the EU policy framework has many similarities and some differences with the elements identified by those I interviewed:

-It identifies the same challenges of the labour market, such as the impact of the digitalisation and artificial intelligence, the globalisation, the ageing societies and the functional changes.

-Both parties agree that the digitalisation causes functional changes and forces a large part of the employees to reskill and upskill in the near future, otherwise they risk being excluded from the labor market.

-A common element emphasized by both parties is the element of accessibility (easy-to-use and accessible tools, special time for learning) as a key criterion for participation in learning activities.

-There is a similarity between the essential values that define learning activities for both parties, values such as long-term employability, competitiveness and innovation. One difference here is that the public institutions also want to offer life skills such as critical thinking, active citizenship, media literacy, financial literacy, etc.

-One essential difference between the two is that while the EU policy framework develops 'effective lifelong guidance systems', trying to push adults into learning activities, private companies rely rather on an individual responsibility of the employee who has to ask for a learning activity.

## V. Conclusions and recommendations

### a) Conclusions

This thesis was organized around one main research question and several secondary research questions. The main research question was *which are the key success factors of lifelong learning strategies at companies' level?* The secondary research questions were: 1) Which are the most efficient lifelong learning methods that companies are using to benefit from the success factors? 2) Which is the relation between private companies' strategies and public institutions initiatives?

I have provided answers to these questions through several sources and methods. First of all, I created a broad theoretical framework, based on academic sources that identified the key success factors of lifelong learning strategies at companies' level, providing a direct answer to my main research question. Defining all the essential concepts and realizing a factual state of play of the main theories related to the concept of lifelong learning, I managed to identify the success factors that come from the specialized literature, such as:

- ensuring a good transfer of knowledge from the education process to the workplace
- using the learners experiences as the basis for the learning process
- tracking and validating informal learning
- the working environment should encourages experimentation, being tolerant to mistakes
- the perceived organisational support is essential in the learning culture
- the appreciation of the value of work transmit confidence and rise the commitment to learn
- raising awareness about the professional impact of adult learning
- the learning objectives and methods should be personalized and oriented towards real situations in the participants' jobs
- the employees should be guided to become aware of their professional identity

In chapter three, I conducted two interviews with companies that apply lifelong learning strategies. This allowed me to improve the answer to my main research question, through several aspects. First of all, the data obtained directly from these companies confirms and it strengthens a number of success factors that I have identified in the theoretical framework: the strategic approach of the learning activities, the personalization of learning processes, the importance of the learning culture, the verification of knowledge transfer in the workplace.

These interviews helped me to give an even broader answer to my main research question, by adding new concepts and ideas. Thus, we have a much better overview, using both the examples identified in the specialty literature, but also examples offered by the companies that are constantly working in this area. The new success factors are identified in the interviews are:

- using the learner personas concept for designing the learning activities
- adapting the learning to the time to competency concept
- using the net promoter concept for evaluating a learning activity

- using the learning in the flow of work concept - short and targeted solutions based on digital tools and designed repetition
- clear delimitation of learning events with accessibility for employees
- potential use of new technologies such as the blockchains for learning validation

One of my secondary research questions was *which are the most efficient lifelong learning methods that companies are using to benefit from the success factors?* I developed an answer to this question through the information obtained in the interviews from the chapter three. Several methods are listed in the two interviews, I will outline further just a few of them.

For example, the good transfer of knowledge from the education process to the workplace. Linda explained what Solvay do for this factor. They have long assesment processes after the learning activity, 3 or 6 months, where the line manager needs to offer feedback based on the behavior change of the learner.

Another example was provided for the methods of creating a culture of learning. Mr. Lutin explained that he identified the need for companies to really facilitate the access to the learning activities. Therefore, participants' availability is a key element in creating a learning culture. Mr. lutin offered the example from the UK, where many companies adopted the concept of a learning week, dedicated exclusively to learning activities.

For the employees' motivation factor, Ms. Liu explained that in the learning design the company use a "learner personas" before starting the program. This means they take into account many dimensions and details to find out what is the best way to learn for a certain person or group. This type of analysis before the activity is a method to create a more positive and impactful experience for the participants, motivating them to participate in other activities.

My second secondary research questions was *which is the relation between private companies' strategies and public institutions initiatives?* I have provided partial answers to this question through several sources.

First of all, in the second chapter, I identified several initiatives that can be considered successful initiatives between private companies and public authorities, to show that this is happening and it is relevant for some companies. I recall here the examples from the second chapter, such as the Partnership for Denmark's Future and the Bad Tölz Learning Regions.

Moreover, this research question was introduced in the interviews from the chapter three. Unfortunately, I did not obtain data for this question. For the two companies interviewed, the relation with the public institutions was not relevant for their learning activities. The answer to this research question remains relatively vague.

Although I did not obtatin data from the interviews for this last question, I maintain the hypothesis that public policies, in particular European policies, will further influence companies more and more, including the learning activities and the transition of the workforce. This is why I considered the development of chapter 4 essential, in which I explained what the EU policy framework on lifelong learning is.

We cannot talk about lifelong learning success factors at company level ignoring the broad societal context that requires significant transformations of workers in private companies. For example, the European Green Deal will require huge transformations for many companies, including the reskilling and upskilling for millions of employees. I explained these transformations from the perspective of the European Union in chapter 4, summarizing the most important initiatives from the beginning of the 2000s to the present.

## **Recommendations**

- Companies have to self assess what will be the impact of the big trends of the labor market on their specific activity (digitalisation, new technologies, ageing population, climate change, and globalisation).
- Companies should consider to take on success factors confirmed by the literature and other studies, stated in the conclusions; As well, companies could work more closely with universities for more in-depth research.
- Companies should apply success factors that are confirmed in this work by both literature and interviews, namely: the importance of the learning culture, the verification of knowledge transfer in the workplace, learning design based on participants' experience, validation of all forms of learning, forecasting professional identity changes;
- Companies must foresee changes in professional roles for their employees and now prepare the workforce that they will want in a few years, starting from the current competences of the employees and applying the appropriate learning activities.
- Because the labor market is evolving so fast and adapting to the big trends requires multidimensional efforts, companies need to work more collaborative with each other to ensure we have a timely and equitable adaptation.
- Accessibility remains an essential element for employees' participation in learning activities; companies must ensure that they provide specific time for learning as well as the necessary resources
- Companies should have an active relationship with public institutions to align the views of the two types of stakeholders and to maximize the impact of public projects.
- A common effort on the part of all the actors involved must be made in order to increase the level of awareness among the employees regarding the changes in the labor market and need to learn throughout life in order to have a good integration in the labor market.

## **ANNEX 1 – Case studies lifelong learning methods**

### **Case study: Vodafone UK Digital Degree**

Vodafone is the second largest mobile phone telecommunication company in the world. The Digital Degree program is based on a partnership between Vodafone UK and the University of Birmingham, combining a bachelor degree in computer science with a technology apprenticeship at Vodafone. “The program involves a 10-week summer placement in the first year of study and a 12 months industrial placement in the third year of study, with a salary and a guaranteed role in one of Vodafone’s digital teams once graduated.” (Vodafone, 2018)

### **Case study: Walmart offering college degrees opportunities for its employees**

Walmart it is one of the biggest retail corporations from USA. In 2018, they announced a new associate education benefit, in partnership with a training company and three universities. The goal was to help the associates to advance in their jobs by offering access to Business and Supply Chain Management degrees. “Walmart will finance the cost of tuition, books and fees for encouraging the access to quality education. The Lumina Foundation will research and measure the effectiveness of Walmart program. Walmart employs approximately 2.3 million associates worldwide.” (Walmart, 2018)

### **Case study: Volkswagen Poland using job-rotation**

In a larger plan that aim to address demographic challenges in their workforce, Volkswagen used the job-rotation as a learning method for its employees. The company used the rotation of employees who have temporarily or permanently “lost their ability to work in their current capacity to different posts”. Therefore, “Job rotation gives employees increased flexibility and new skills, while it also decreases the monotony of work”. (Kochalski, Skowron-Mielnik, 2013)

### **Case study: Pulp & Paper Interactive Electronic Training Manual**

Pulp & Paper is a leading US company in manufacturing and distribution of pulp and paper products, with 30,000 employees. Working with the paper machines and the new fiber lines requires training for the employees. The company created the Interactive Electronic Training Manual, designed to request information from the user, and based on that input to determine what information to display next. This electronic manual has the ability to guide the user through different procedures in a way a paper manual cannot do. The manual uses a task-based approach that allows all employees, with varying degrees of experience to develop the skills for the technicians and operators jobs. (GP Strategies, 2016)

### **Case study: Fujitsu Spain game-based learning**

Fujitsu Spain employs 1,700 persons in the IT and telecommunication sector. The challenges in the learning programs were to introduce motivating, innovative, self-directed learning methods. Game-based learning combines practical content, simulation and gamification. Therefore, the game “created a risk-free environment where the employees had more self-confidence, exercising skills such as negotiation, group challenges and leadership”. (Game Learn, 2016)

**Case study: Boeing Company Tuition Support for Continued Training**

Boeing is one of the biggest airplanes producers in the world. Boeing's Learning Together Program is a partnership with Villanova University for offering a wide range of online certificate courses and programs, from human resources to project management and lean six sigma. The classes for the employees are fully online, based on a video e-learning program. "Boeing believe that ongoing education ensure that the employees have the right training they need to excel in today's fast-paced business environment." (Villanova University, 2019)

## **ANNEX 2 - Questionnaire form used in the semi-structured interviews with the two companies**

### **Introductory questions:**

- Short presentation – What is your role in the company? How your role relates to lifelong learning activities?
- What is the meaning of lifelong learning concept for your company?
- What are the biggest challenges and trends in the labour market which creates the need for lifelong learning?
- How does your company create and structure the strategy of lifelong learning activities for the employees?

### **Learning objectives**

- As the expectation of personal success in the educational activity can influence the decision to participate, are the employees involved in the setting of the learning objectives and activities?
- Are the learning objectives personalized or differentiated depending on the employee? What criteria do you take into consideration?

### **Learning guidance**

- How do you guide your employees to become aware of their professional identity and their potential future roles in the workplace?

### **Employees' motivation to learn**

- How do you convince your employees to understand the need for engaging in a learning process?
- The lack of desire to learn, exists also because people are not fully aware of the role changes and the professional pathway that they might have in the future. How do you raise awareness about the professional impact of adult learning for your employees?

### **Learning culture**

- For your company, what are the success factors to create a learning culture that foster and encourage the learning activities and participation?

### **Formal and informal learning**

- Learning processes also happen informally, outside the organized activities. How does your company count this way of learning?

### **Validation of the learning**

- What methods of validation of the learning outcomes do you use?
- How do you ensure a good transfer of knowledge from the education process to the workplace settings

### **Partnerships with public institutions**

- For your company, partnerships with public institutions might be a success factor for your lifelong learning strategy? In what ways?
- Adults' participations in learning activities varies in EU countries, for examples 41% in Italy and only 7% in Romania (Eurostat, 2016). How is this affecting the learning activities in your company?

## Bibliography:

Alexandru Clain, (2016). *Challenges in evaluating the EU's lifelong learning policies*, *International Journal of Lifelong Education*, 35:1, 18-35, page 23, Retrieved from: [www.tandfonline.com/doi/abs/10.1080/02601370.2015.1125395](http://www.tandfonline.com/doi/abs/10.1080/02601370.2015.1125395)

Andralojc, Kochalski, Skowron-Mielnik, (2013). *Work Organisation and Innovation - Case Study: Volkswagen Work Organisation and Innovation - Case Study: Volkswagen Poznań*, Poland, Cornell University, Retrieved from: [www.digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1255&context=intl](http://www.digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1255&context=intl)

Benoit Gauthier, (2009). *Recherche sociale 5<sup>th</sup> edition*, page 339, Presses de l'Université du Québec

Bernard Berelson, (1952). *Content analysis in communication research*, page 44, Michigan Free Press

Borut Mikulec, (2018). *Normative presumptions of the European Union's adult education policy*, *Studies in the Education of Adults*, 50:2, 133-151, page 137, 138. Retrieved from: [www.tandfonline.com/doi/abs/10.1080/02660830.2018.1522942](http://www.tandfonline.com/doi/abs/10.1080/02660830.2018.1522942)

Bund-Länder-Kommission (BLK). (2004). *Strategy for Lifelong learning in the Federal Republic of Germany*, 115, page 26, Retrieved from [www.blk-bonn.de/papers/volume115-english.pdf](http://www.blk-bonn.de/papers/volume115-english.pdf)

Burton W. Kreitlow and Associates, (1981). *Examining Controversies in Adult Education*, page 12, Jossey-Bass Publishers

CEDEFOP, (2011). *Learning while working, Success stories on workplace learning in Europe*, page 20, 33, 77, 99, Retrieved from [www.cedefop.europa.eu/files/3060\\_en.pdf](http://www.cedefop.europa.eu/files/3060_en.pdf)

Commission des partenaires du marché du travail, (2017). *Programmes de subvention 2017-2018. Fonds de développement et de reconnaissance des compétences de la main-d'œuvre*. Retrieved from [www.cpmt.gouv.qc.ca/includes/composants/telecharger.asp?fichier=/publications/pdf/fdr\\_cmo-programmes-subvention\\_2017-2018.pdf&langue=fr](http://www.cpmt.gouv.qc.ca/includes/composants/telecharger.asp?fichier=/publications/pdf/fdr_cmo-programmes-subvention_2017-2018.pdf&langue=fr)

Commission des partenaires du marché du travail, (2018). *Loi sur les compétences*. Retrieved from : [www.cpmt.gouv.qc.ca/grands-dossiers/loi-competences/index.asp](http://www.cpmt.gouv.qc.ca/grands-dossiers/loi-competences/index.asp)

D. Kearns & P. Kearns, 2012, *Lifelong Learning in German cities/regions*, *Australian Journal of Adult Learning*, Retrieved from [www.files.eric.ed.gov/fulltext/EJ1000173.pdf](http://www.files.eric.ed.gov/fulltext/EJ1000173.pdf)

Europass website, (2020). [www.europass.at/en/what-is-europass/](http://www.europass.at/en/what-is-europass/)

European Commission, (2019). *The European Green Deal*, page 19, Retrieved from: [www.ec.europa.eu/info/sites/info/files/european-green-deal-communication\\_en.pdf](http://www.ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf)

European Commission, (2012)., *The European Qualification Framework for Lifelong Learning*. Retrieved from [www.ec.europa.eu/ploteus/sites/eac-eqf/files/leaflet\\_en.pdf](http://www.ec.europa.eu/ploteus/sites/eac-eqf/files/leaflet_en.pdf)

European Commission; Cedefop; ICF International, (2014). *European inventory on validation of non-formal and informal learning*. Executive summary. Retrieved from: [www.libserver.cedefop.europa.eu/vetelib/2014/87250.pdf](http://www.libserver.cedefop.europa.eu/vetelib/2014/87250.pdf)

European Commission, (2017). *The Digital Skills Gap in Europe*, Retrieved from [www.ec.europa.eu/digital-single-market/en/news/digital-skills-gap-europe](http://www.ec.europa.eu/digital-single-market/en/news/digital-skills-gap-europe)

European Commission, (2011). *An Agenda for new skills and jobs – A European contribution towards full employment*, page 9, Retrieved from: [www.op.europa.eu/en/publication-detail/-/publication/7f39a8c6-068e-434d-a7ce-a9665bf227f9](http://www.op.europa.eu/en/publication-detail/-/publication/7f39a8c6-068e-434d-a7ce-a9665bf227f9)

European Commission, (2002). *European Report on Quality Indicators of Lifelong Learning*, Retrieved from: [www.aic.lv/bologna/Bologna/contrib/EU/report\\_qual%20LLL.pdf](http://www.aic.lv/bologna/Bologna/contrib/EU/report_qual%20LLL.pdf)

European Commission, (2020). *The Digital Skills and Jobs Coalition*, Retrieved from: [www.ec.europa.eu/digital-single-market/en/digital-skills-jobs-coalition](http://www.ec.europa.eu/digital-single-market/en/digital-skills-jobs-coalition)

European Commission, (2016). *European Social Fund*, Retrieved from: [www.ec.europa.eu/esf/BlobServlet?docId=16259&langId=en](http://www.ec.europa.eu/esf/BlobServlet?docId=16259&langId=en)

European Commission, (2020). *Erasmus+ figures*, Retrieved from: [www.ec.europa.eu/programmes/erasmus-plus/about/key-figures\\_en](http://www.ec.europa.eu/programmes/erasmus-plus/about/key-figures_en)

European Commission, (2010). *Grundtvig programme*, Retrieved from: [www.ec.europa.eu/commission/presscorner/detail/en/IP\\_10\\_1156](http://www.ec.europa.eu/commission/presscorner/detail/en/IP_10_1156)

European Youth Forum, (2018). *The future of work and youth*, page 19, Retrieved from: [www.youthforum.org/future-work-and-youth](http://www.youthforum.org/future-work-and-youth)

European Parliamentary Research Service, (2018). *The impact of new technologies on the labour market and the social economy*, page 25, Retrieved from: [www.europarl.europa.eu/RegData/etudes/STUD/2018/614539/EPRS\\_STU\(2018\)614539\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/614539/EPRS_STU(2018)614539_EN.pdf)

European Parliament, (2017). *New Skills Agenda for Europe: State of implementation*, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/607334/IPOL\\_BRI\(2017\)607334\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/607334/IPOL_BRI(2017)607334_EN.pdf)

European Council, (2012). *Official Journal of the European Union*, page 3, [www.eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF](http://www.eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF)

Eurostat, (2016). *Adult Education Survey, Main obstacle to participation in education and training*. Retrieved from [www.circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp](http://www.circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp)

Eurostat, (2019). *Participation rate in education and training in the last 12 months, Age class 25-64*. Retrieved from

[www.ec.europa.eu/eurostat/statistics-explained/index.php/Adult\\_learning\\_statistics](http://www.ec.europa.eu/eurostat/statistics-explained/index.php/Adult_learning_statistics)

E. Panitsidou, E. Griva, D. Chostelidou, (2012). *European Union policies on lifelong learning: in-between competitiveness enhancement and social stability reinforcement*, page 551, Retrieved from: [www.sciencedirect.com/science/article/pii/S1877042812012876](http://www.sciencedirect.com/science/article/pii/S1877042812012876)

Eugenia A. Panitsides & Sofia Anastasiadou, (2015). *Lifelong Learning Policy Agenda in the European Union: A bi-level analysis*, Open Review of Educational Research, 2:1, 128-142, page 23, 26, 39, 61, 68, 133, 134, Retrieved from: [www.tandfonline.com/doi/full/10.1080/23265507.2015.1043936](http://www.tandfonline.com/doi/full/10.1080/23265507.2015.1043936)

Eva Feketene Szakos, (2014). *Learning as renewal: contribution to the present theoretical background of the lifelong learning policy of the European Union*, International Journal of Lifelong Education, 33:4, 504-522, page 51, 510 511, Retrieved from [www.tandfonline.com/doi/full/10.1080/02601370.2013.876559](http://www.tandfonline.com/doi/full/10.1080/02601370.2013.876559)

Eva Kyndt, Natalie Govaerts, Trees Claes, Jens De La Marche & Filip Dochy, (2013). *What motivates low-qualified employees to participate in training and development? A mixed-method study on their learning intentions*, Studies in Continuing Education, 35:3, 315-336, page 317, Retrieved from [www.tandfonline.com/doi/full/10.1080/0158037X.2013.764282](http://www.tandfonline.com/doi/full/10.1080/0158037X.2013.764282)

Evelyne Leonard, Emmanuelle Perin, (2009). *Lifelong Learning and Social Partnership: A comparative Overview of Twelve European Countries*, International Journal of Comparative Labour Law and Industrial Relations 25, no 3, 283-300, page 292, Retrieved from the library of Universite Catholique de Louvain

GP Strategies, (2016). Retrived from [www.gpstrategies.com/wp-content/uploads/2016/09/Case-Study-Pulp-and-Paper-Company-Interactive-Training-Manual.pdf](http://www.gpstrategies.com/wp-content/uploads/2016/09/Case-Study-Pulp-and-Paper-Company-Interactive-Training-Manual.pdf)

Game Learn, (2016).Retrived from [www.game-learn.com/wp-content/uploads/2013/07/01\\_CS\\_FUJITSU\\_V2-EN\\_final.pdf](http://www.game-learn.com/wp-content/uploads/2013/07/01_CS_FUJITSU_V2-EN_final.pdf)

Institut Arbeik und Technik, (2012). *Mapping the German landscape of tertiary lifelong learning*, page 18. Retrieved from [www.themp.eu/sites/default/files/userfiles/shared/DiscussionPapers/DP\\_2012\\_4\\_3\\_DE.pdf](http://www.themp.eu/sites/default/files/userfiles/shared/DiscussionPapers/DP_2012_4_3_DE.pdf)

Jenny Chesters, Hernan Cuervo & Jun Fu, (2020). *Re-engagement with education over the life course: motivation and barriers*, International Journal of Lifelong Education, Retrieved from: [www.tandfonline.com/doi/full/10.1080/02601370.2020.1720330](http://www.tandfonline.com/doi/full/10.1080/02601370.2020.1720330)

Josh Bersin, (2018). *A New Paradigm For Corporate Training: Learning In The Flow of Work* [www.joshbersin.com/2018/06/a-new-paradigm-for-corporate-training-learning-in-the-flow-of-work/](http://www.joshbersin.com/2018/06/a-new-paradigm-for-corporate-training-learning-in-the-flow-of-work/)

Katja Vahasantanen, Susanna Paloniemi, Paivi Hokka & Anneli Etelapelto, (2017). *Agentic perspective on fostering work-related learning*, Studies in Continuing Education, 39:3, 251-267, page 257, 264, Retrieved from [www.tandfonline.com/doi/full/10.1080/0158037X.2017.1310097](http://www.tandfonline.com/doi/full/10.1080/0158037X.2017.1310097)

M.Milano, J.Holford, (2014). *Adult Education Policy and the European Union*, Research on the Education and Learning of Adults, page 19, Retrieved from [www.eprints.nottingham.ac.uk/50713/1/adult-education-policy-and-the-european-union.pdf](http://www.eprints.nottingham.ac.uk/50713/1/adult-education-policy-and-the-european-union.pdf)

Malcom S. Knowles, Elwood F. Holton, Richard A. Swanson, (2011). *The Adult Learner: The Definitive Classic in Adult Education and Human Resources Development*, page 37, 115, 120, 131, Published by Elsevier

Martin Dyke, (2017). *Paradoxes of a Long Life Learning: an Exploration of Peter Jarvis's Contribution to Experiential Learning Theory*, International Journal of Lifelong Education, 36:1-2, 23-34, page 27, 28 Retrieved from [www.tandfonline.com/doi/full/10.1080/02601370.2017.1269475](http://www.tandfonline.com/doi/full/10.1080/02601370.2017.1269475)

Michael Eraut, (2004) *Informal learning in the workplace*, Studies in Continuing Education, 26:2, 247-273, page 256, 267 Retrieved from [www.tandfonline.com/doi/full/10.1080/158037042000225245](http://www.tandfonline.com/doi/full/10.1080/158037042000225245)

Ministère du Travail, (2019) *Participation financière des entreprises au développement de la formation professionnelle et de l'apprentissage*. Retrieved from [www.travail-emploi.gouv.fr/formation-professionnelle/entreprise-et-formation/article/participation-financiere-des-entreprises-au-developpement-de-la-formation](http://www.travail-emploi.gouv.fr/formation-professionnelle/entreprise-et-formation/article/participation-financiere-des-entreprises-au-developpement-de-la-formation)

Ministre du Travail, (2019). *Projet de transition professionnelle*. Retrieved from [travailemploi.gouv.fr/formation-professionnelle/formation-des-salaries/article/projet-de-transition-professionnelle](http://travailemploi.gouv.fr/formation-professionnelle/formation-des-salaries/article/projet-de-transition-professionnelle)

Neufeind, O'Reilly, Ranft, (2018). *Work in the Digital Age – Challenges of the fourth industrial revolution*, page 279, Retrieved from [www.policynetwork.org/wp-content/uploads/2018/06/Work-in-the-Digital-Age.pdf](http://www.policynetwork.org/wp-content/uploads/2018/06/Work-in-the-Digital-Age.pdf)

OECD, (2019). *OECD Skills Strategy*, page 50, 51, 57, Retrieved from [www.oecd.org/skills/oecd-skills-strategy-2019-9789264313835-en.htm](http://www.oecd.org/skills/oecd-skills-strategy-2019-9789264313835-en.htm)

Official Journal of the European Union, (2015) *Joint Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training* (ET 2020), Retrieved from [www.eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XG1215\(02\)&from=EN](http://www.eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XG1215(02)&from=EN)

Official Journal of the European Union, (2016) *Council Recommendation of 19 December 2016 on Upskilling Pathways: New Opportunities for Adults*, Retrieved from [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H1224\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016H1224(01)&from=EN)

Patricia Cross, (1988). *Adults as Learners – Increasing Participation and Facilitating Learning*, page 257-258, Jossey-Bass Publishers

Peter H. Sawchuk, (2008)., *Theories and methods for research on informal learning and work: towards cross-fertilization*, Studies in Continuing Education, 30:1, 1-16, page 5. Retrieved from [www.tandfonline.com/doi/full/10.1080/01580370701628474](http://www.tandfonline.com/doi/full/10.1080/01580370701628474), Published by Elsevier

Publication Office of the European Union, (2012). *Leonardo da Vinci programme*, Retrieved from: [www.op.europa.eu/en/publication-detail/-/publication/f30adf84-31f6-4ae6-bda2-%20%20%20%20%20%20%20%202982a9d01ac6](http://www.op.europa.eu/en/publication-detail/-/publication/f30adf84-31f6-4ae6-bda2-%20%20%20%20%20%20%20%202982a9d01ac6)

R. ST CLAIR, (2004) *Success stories: aspirational myth in the education of adults*, International Journal of Lifelong Education, 23:1, 81-94, page 86, Retrieved from [www.tandfonline.com/doi/full/10.1080/0260137032000172079](http://www.tandfonline.com/doi/full/10.1080/0260137032000172079)

Roger Harris, (1999) *Lifelong learning in work contexts*, Research in Post-Compulsory Education, 4:2, 161-182, page 162-163, Retrieved from [www.tandfonline.com/doi/abs/10.1080/13596749900200055](http://www.tandfonline.com/doi/abs/10.1080/13596749900200055)

Service-Public, (2019). *Projet de transition professionnelle (PTP)*. Retrieved from [www.servicepublic.fr/particuliers/vosdroits/F14018](http://www.servicepublic.fr/particuliers/vosdroits/F14018)

Sue O’Keefe, Lin Crase & Brian Dollery, (2007). *Does the reality of workplace training match the theory? An analysis of public sector employees’ training decisions*, International Journal of Training Research, 5:2, 41-54, page 46, Retrieved from [www.tandfonline.com/doi/abs/10.5172/ijtr.5.2.41](http://www.tandfonline.com/doi/abs/10.5172/ijtr.5.2.41)

Villanova University, (2019). Retrieved from [www.villanovau.com/resources/corporate/boeing-ta/](http://www.villanovau.com/resources/corporate/boeing-ta/)

Vodafone, (2018). Retrieved from [www.careers.vodafone.co.uk/digital-degree-apprenticeship](http://www.careers.vodafone.co.uk/digital-degree-apprenticeship)

World Bank, (2019). *The World Development Report*, page 70. Retrieved from [www.worldbank.org/en/publication/wdr2019](http://www.worldbank.org/en/publication/wdr2019)

Walmart, (2018). Retrieved from [www.corporate.walmart.com/newsroom/2018/05/30/walmarts-new-education-benefit-puts-cap-and-gown-within-reach-for-associates](http://www.corporate.walmart.com/newsroom/2018/05/30/walmarts-new-education-benefit-puts-cap-and-gown-within-reach-for-associates)

