



Integrating Entrepreneurship and Work
Experience in Higher Education

EU-Level Literature Review

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EU-LEVEL LITERATURE REVIEW

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INTRODUCTION

In the last 20 years, the labour market has changed dramatically. The globalization of the economy, the shift from a manufacturing-based to an information-based society, the transition to a 'greener' economy, as well as the development of new media and communication technologies have led to significant shifts in structure of the workplace and in the conditions of work (Kennedy, Lawton, & Walker, 2001 in Baaken et al., 2015). These radical changes are putting immense pressure in the role performed by higher education institutions (HEI). The pre-determined and purely theoretical academic curriculum dissociated with the labour market context no longer meets modern employment demand (Johnson, 2000; Clark and Whitelegg, 1998). As today concepts and theories are widely available for an infamous cost, HEI is no longer the gatekeepers of information. In addition, possessing pure theoretical knowledge is no longer the most critical aspect to determine employability. According to Johnson (2000), both students and employers are recognizing that HEI's curriculum possesses failures, such as the lack of practical grounds, learning models that are prescriptive, and out of date content. At the same time, Cedefop (2016) estimates that, by 2020, 35% of all jobs will require high-level qualifications combined with the capacity to be adaptive, innovative and flexible. Consequently, on the one hand, students and graduates are worried about their future employability and on the other hand employers are already experiencing increased difficulty in finding graduates with skills to match the demands of the post-industrial age. Twenty-first-century employers are becoming less concerned with the candidates' level of expertise in disciplinary knowledge and more with the possession of an array of more 'general competences' (Pavlin, 2014).

This discussion is also important in the context of the European Union (EU), and the debate over the role of HEI in forming better-prepared graduates is an ongoing issue for almost a decade (Birtwistle et al., 2016). With frameworks established by the Bologna Reform as well as by the European Qualification Framework (EQF), an orientation towards higher education focused not just on disciplinary knowledge, but the development and assessment of skills and competencies have gain momentum. Moreover, the broader Europe 2020 plan also puts improved education and training systems as critical steps for the EU to improve its competitiveness and achieve sustainable growth as other nations, such as the USA and Japan, are advancing at a faster pace (Schmidt and Gibbs, 2009; Cedefop, 2016).

In the light of this 'orientation towards competence development', a call for new teaching and learning approaches has become necessary. Although a shift in the learning paradigm demands a broad and holistic change in higher education mentality, ranging from national policies to curriculum design, Zlatkin-Troitschanskaia (2017) and other authors defend that a competence-oriented learning also demands a change in learning design. Learning constellations must encompass a more active participation of learners, where learning is less a result of 'schooling' and more of the active involvement of the students as central actors of their own learning experiences.

At the same time, the external economic and social forces which have led to transforming the purpose and nature of the university have in turn impacted upon the perspectives and expectations which students bring with them to their undergraduate studies. For many undergraduate students studying for a degree is not just about learning for learning sake's



and following a particular discipline in depth but rather as Tomlinson points out: 'It now appears no longer enough just to be a graduate, but instead an employable graduate' (2012: 25). Higher education is now viewed by students, as Tomlinson (2012) asserts as being an investment in their future lives in the labour market. They realise that it is a competitive world out there and that to get the best graduate jobs they need to offer more to employers than just their degree qualification. This process also puts increasing pressure on students to engage in activities other than their degree work in order to gain extra credentials to help them in the graduate labour market.

In that context, the past 50 years have witnessed the development of a series of 'active-based pedagogies' where the active participation of the learner is paramount. One of such active pedagogies is called work-based learning (WBL), the focus of this literature review.

WHAT IS WBL?

Academics have defined WBL as a pedagogical structure that provides to students learning experiences oriented for the appreciation of work and practical knowledge (Clark and Whitelegg, 1998). In other words, through WBL, HEIs can foster the preparation of their learners for the labour market through the development of learning instruments that simulate or immerse students in practice environments (Nottingham, 2016).

Under this definition, WBL aims to integrate two normally distinct learning phases; the academic phase and the working phase. The academic phase is oriented towards the critical analysis of theories and methodologies that would be hard to acquire exclusively at the workplace. The workplace phase, on the other hand, is oriented towards on the transfer of a theoretical to a practical experience (Zhang et al., 2016).

Accordingly, WBL creates an environment to stimulate learners to take control of their own learning by promoting the development of skills for lifelong learning such as intellectual, personal, critical and analytical skills that complement the theory being used in practice (Nottingham, 2016). According to Lester and Costley (2010), transferring the traditional programme to a work-based programme can foster personal development as well as the learning of specific skills for the workplace (Overton and Lemanski, 2016). For Bound and Solomon (2001), WBL can promote the proximity between academia, industry and public sector, perhaps closing the gap between them.

Having that considered, the first issue regarding WBL arises already in its definition. Although the most common form of WBL found in HE is probably the internship/placement (Devins, et al. 2016) a wide range of constellations exist, ranging from work-associated projects with reflective assignments, passing through 'sandwich' in-company training, to fully integrated programs such as dual studies. To makes matter worst, in Europe a list of terms is used interchangeably to define WBL, including workplace learning, work-related learning, vocational learning, experiential learning, competency-based learning and apprenticeship.

In the eyes of WEXHE, WBL is defined as: "an educational strategy that provides students with real-life work experiences to apply academic knowledge and understanding as well as subject related and generic skills and competencies to develop employability skills and competencies." As such, for the purpose of WEXHE, the term encompasses both: i) the learning mode associated to a degree programme in which a student gets practical training and work experience at the workplace (often called work placements/internships); ii) the practical training aimed at students who have finished their educational training but have not yet entered the labour market (traineeship) and iii) entrepreneurship.

Important to remark is that, although apprenticeships (aimed at post-secondary education) and vocational training (VET) could be included in the aforementioned definition, WEXHE interest lies exclusively in HE (and beyond) level initiatives. As such, little attention will be given to apprenticeships and VET in this review.

WBL CONTEXT IN EUROPE

As advocated previously, the purely theoretical academic curriculum is giving space for new strategies that incorporate the use of workplace knowledge to achieve a broader range of educational goals (Nottingham, 2016; Overton and Lemanski, 2016). In this context, although still restrained by a number of challenges of varying natures, overall interest in WBL has increased over the last decades (Devins, et al. 2016). Here we will analyse three main aspects of the WBL context in Europe: a) its institutional tradition, b) its disciplinary-area tradition and c) its legislative and policy aspects.

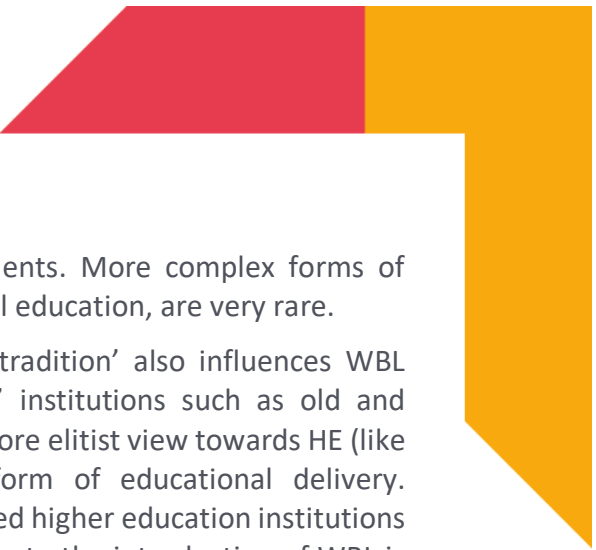
Institutional tradition

According to Cedefor (2012), WBL tradition in Europe is not consistent across borders. At the same time that it has a long tradition in northern European countries, it is still an emerging concept in others. WEXHE national literature reviews pointed out that, in the German-speaking tradition WBL is strongly associated with different types of vocational education and training (VET), especially the dual study programs implemented in vocational academies and universities of applied sciences. Those programs not only have a long-standing tradition and a worldwide reputation for its quality but are also supported by various national policies and governmental bodies (Graf, 2016). Work placements (Prakticum) are also a common feature in universities of applied sciences since the 80's, in particular in fields such as business and engineering, where is practically mandatory (Kupfer and Mucke, 2010).

In the case of the UK, WBL entails both the provision of a path to integrate higher-level learning with workplace learning, unlocking the potential of students, familiarising them with the workplace environment and enhancing their skills within this sphere, as well as a resource for further developing the skills of those who are already in the workplace environment and in association with life-long learning. Within the frame of WBL one, therefore, encounters the preparation for future employment, training within employment, and training within aspects of life outside of the workplace that serves to enhance career skills and orientations to the marketplace. A similar notion holds true in The Netherlands, where WBL can be understood both as an integration between HE and the world of work and as life-long learning. Yet, somehow different from the UK, in The Netherlands WBL also carries an important VET component, including secondary education.

The countries of the so-called eastern bloc (Poland and Slovenia in the case of WEXHE) also carry strong historical ties between the universities and industry, with specialized, practice-oriented HEIs focused on vocational and technical schools (secondary school) and a dual education system (based on the German model). Yet, this cooperation was somehow abandoned at the end of the Communist era. However, although less extensive than in the north western European countries, a re-emergence can be noticed in the past years, especially regarding work placements.

Finally, in southern European countries (in WEXHE represented by Spain), HEIs still have a very traditional approach towards learning, with little space for alternative forms of instruction. Nevertheless, WBL has gain recent popularity even though associated with



‘simpler’ forms of cooperation, such as short-term placements. More complex forms of collaboration between HE and the world of work, such as dual education, are very rare.

In addition to the different taxonomies, the ‘institutional tradition’ also influences WBL penetration (Devins, 2013). It seems that in more ‘elitist’ institutions such as old and traditional research universities, as well as countries with a more elitist view towards HE (like Spain and France), WBL is often seen as an inferior form of educational delivery. Consequently, WBL is most frequently found in recently formed higher education institutions and as universities of applied sciences. Much of the resistance to the introduction of WBL is influenced by the academics themselves who are still unwilling to accept knowledge acquired outside the university as legit; a reluctance which may be motivated by its claim for exclusive knowledge transmission (Schmidt and Gibbs, 2009).

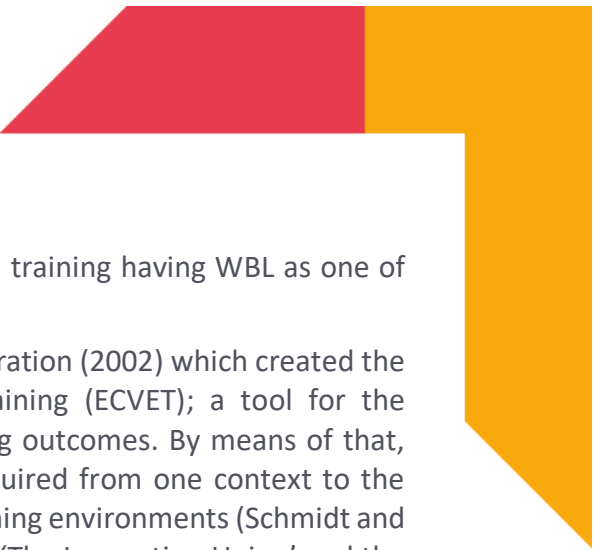
Lastly, it must be acknowledged that any efforts towards cross-country WBL comparison have faced the challenges of a lack of clear WBL definition, methodological issues in terms of assessment and measurement, and the fact that WBL is rarely reported as a distinct learning strategy in national and European reports (Devins, 2013).

Disciplinary Tradition

In addition to the form of academic organization and learning tradition, WEXHE national literature reviews reveal that the WBL context seems to be discipline-influenced. Areas such as medicine and primary education put WBL as central elements in their programmes. Applied areas such as business and engineering offer a relatively wide offer of WBL programs, even in countries with less WBL tradition such as Spain, Cyprus, Poland and Slovenia. Non-applied disciplinary areas like social and natural sciences have the lowest WBL presence in all partner countries. The reason for the favorization of business and engineer in detriment to social and natural sciences can be partly explained by the structural organization of HE. In Germany for instance, although WBL is well recognized (especially in the form of the dual-system) its implementation is highly connected to either vocational schools or universities of applied sciences. Research-based universities did not yet embrace WBL tradition. Consequently, ‘hard-pure’ disciplines such as mathematics and physics and ‘soft-pure’ like philosophy and liberal arts, which are mostly offered by research universities, received little to no WBL attention. Even in more applied disciplines such as business and engineering, programs offered at research-based university remain highly theoretical. The same pattern is seen in all other WEXHE country partners. The exception is perhaps The Netherlands, where WBL is gaining momentum also in research-based universities and in most disciplinary areas.

Policy Context

In terms policy context, there is a general acknowledgement that the development of a workforce more in line with the demands of the knowledge age requires a more active role from HEIs as well as different delivery modes, such as WBL. EU Policies such as the Bologna Reform, the European Qualification Framework (EQF), and Europe 2020 have contributed towards this awareness. More than anything, those policies attempt to establish an enhanced



cooperation between EU member states to foster vocational training having WBL as one of the strategic pillars (Schmidt and Gibbs, 2009).

Perhaps the first step in this direction was Copenhagen Declaration (2002) which created the European Credit System for Vocational Education and Training (ECVET); a tool for the accumulation, transfer and recognition of vocational learning outcomes. By means of that, learners from across Europe could transfer the learning acquired from one context to the other, including the recognition non-formal and informal learning environments (Schmidt and Gibbs, 2009). More recent and specific initiatives include the 'The Innovation Union' and the 'Agenda for New Skills and Jobs'. The former aims to increase the rate of success of innovative ideas making use of WBL concepts to unite business, HEIs and entrepreneurs. The latter has the objective to have 75% of the working-age EU population employed. That would be achieved through, among other things, the investment in education and training systems such as WBL.

However, despite these Pan-European policies pushed by an EU agenda, there is still considerable variation the level of support given by regulatory frameworks throughout the different member states of the EU, with some countries' legislation offering much stronger support for WBL activities than others, such as the case of the North-West Europeans in comparison with East-South. It is evident that, in countries where legislation offers more autonomy and flexibility for HEI in terms of curriculum design have shown a higher penetration of WBL activities (Cedefop, 2016). Yet, despite the discrepancies in WBL embracing across Europe, the national literature reviews conducted in WEXHE show that trans-national policy is indeed a major driver for a broader adoption of WBL. Its contribution is more remarkable in southern and eastern European counties (Spain in particular) where EU policies such as Europe 2020 have played a critical role in pushing the WBL agenda forward. If not for such trans-national initiatives, WBL presence would be even smaller. That contrast with northern European members since in those countries national policy fostering work-related learning were already in place before major EU initiatives were created.

WBL IMPLEMENTATION

For WBL to be successfully implemented in HE, it demands a modernization in HEI mentality, with a focus on student-centred learning, new strategies of learning and teaching, and changes in the guidance structure and curriculum (Birtwistle et al. 2016). In addition, it demands a self-managed process supported by learning contracts (Johnson, 2000). That means that the HEIs need a set of management parameters that impact all HE resources (i.e. human, financial and physical); involves all HE levels (i.e. strategic, tactic and operational) and the environment that surrounds it including the community and the national policies.

The demands for such holistic approach for an adequate WBL implementation were mapped in four important studies conducted at European level and funded with EU resources: i) WBL as an Integrated Curriculum (WBLIC, 2016); ii) Harmonising Approaches to Professional Higher Education in Europe (HAPHE, 2016); iii) Apprenticeship and Traineeship Schemes in EU27 (2013) and iv) Developing European Work Based Learning Approaches and Methods (DEWBLAM, 2006). All four studies focus on producing a framework for improved WBL implementation and design which should assist decision-makers in both strategic planning and curriculum development.

WBL as an Integrated Curriculum (WBLIC)

Based on the analysis of a series of case studies in 7 different EU counties, as well as secondary sources drawn from similar projects, WBLIC produced a framework for WBL implementation, designed to assist HEIs' decision-makers and employers in the incorporation of WBL into the curriculum, regarding both strategic planning and curriculum development.

The framework divides the process of WBL implementation into four stages: 1) market need, 2) curriculum planning, 3) delivery, and 4) evaluation. It also establishes 3 key pillars sustaining the success of this process: a) partnership, b) organization and c) people.

- I. *Market Need*: the framework sustains that a successful WBL initiative should be driven to meet a market demand, which might be identified either by a forecast of professional/skill shortage in a certain industry, or more specific demands of a company or group of companies.
- II. *Curriculum planning*: the research found out that successful cases of WBL practice are marked by a strong contribution from employers in the design of the curriculum. Furthermore, flexible national regulatory frameworks also play an influential role.
- III. *Delivery phase*: again, a close partnership between the HEIs and partner organization is key; not only in terms of access to company resources but also in the design of WBL activities. In addition, effective delivery is largely associated with the quality of the teaching staff, which demands a wider range of skills than those commonly found in traditional teaching environments. Furthermore, the pedagogical and administrative support offered by the HEIs also needs to be considered. That often means a need to adopt administrative systems to become more dynamic as well as emotional concealing and supportive for students.

- IV. *Evaluation*: demands a wider scope of activities and people involved in comparison with the traditional classroom model. First, it should involve employers in the assessment process, giving more emphasis in the input from employers in the evaluation. Second, the evaluation process should be mediated by a process of careful reflection on the action in order to build double-loop learning. Last but not least, evaluation should also consider the students' feedback.

Researchers also noticed that 3 important elements must be aligned in order for the framework to work. First, WBL development requires strong collaboration between the HEIs and the partner organization on multiple levels, as described earlier. Also, a strong commitment from HEIs, as a whole, is needed. It cannot depend solely on the initiative of a small group of academics but requires the support of administrative, pedagogical and regulatory systems. Finally, the development of the capabilities of academics and support staff also contributes significantly to the success of the model.

Harmonising Approaches to Professional Higher Education in Europe (HAPHE)

Another interesting framework for the implementation of WBL activities was offered by the HAPHE study. Led by the European Association of Institutions in Higher Education (EURASHE), in HAPHE researchers looked into the different levels of provision of professional higher education (PHE) in Europe. Although not necessarily the same as WBL, PHE incorporates WBL in its definition since it considers PHE as the education provided at tertiary level with a direct connection with the world of work (Camilleri, et al., 2013). The objective of the HAPHE framework is to ensure that all institutions which call themselves PHE are guided by minimum criteria:

- I. *the curriculum* should be developed by a common effort from academia, the world of work and local government, taking into account the future needs of the practice and employment;
- II. *the learning outcomes* should reflect knowledge, skills and competencies who attend to specific professional requirements;
- III. *the learning content* is offered through an integration of theory and practice in the form of complex problem-solving from real work situations;
- IV. the work experiences serve to *reflect upon theory* in a practical context and not to 'work for work sake' and finally
- V. *teaching staff* must show a combination of academic background and relevant work experience.

Apprenticeship and Traineeship Schemes in EU27

This study written in 2013 by the European Commission portrays the status of WBL (the report calls it traineeship) activity in the 27 EU member states, raising key success factors for its implementation. Similar to both studies mentioned already, the European Commission highlighted:

- I. *Robust Institutional and Regulatory Framework*: one of the critical success factors for a wider and efficient implementation of WBL passes through a well-defined set of regulatory frameworks at national or regional level. Such regulations should stipulate: the main training and skills development requirements; a list of the rights, roles and responsibilities of all involved parties; the duration of the placement and the distribution of academic and in-company time, etc.
- II. *Close Partnerships between Employers and HEI*: the closer companies and HEI cooperate in the design and delivery of WBL, the better the experience is for both students, HEI and company. This level of integration could vary from the offering of semester internship at the end of the program to joint curriculum design and delivery;
- III. *Alignment with the Labour Market Needs*: WBL offering should be aligned to the socio-economic interest of the national, regional or local labour market needs. By attending a market need, the WBL to full employment transfer rates can be dramatically increased.
- IV. *Quality Assurance*: quality assurance procedures, preferably administered by an external single body attends multiple purposes, but typically to: assure that the activities performed by students are relevant and in line with learning objectives (and not a source of cheap labour), that students receive support from the organization, that work conditions are adequate, and that work and study times are respected.
- V. *Guidance, Support and Mentoring*: provision of adequate support, guidance and mentoring to the participants, both at the workplace and at the HEI. One should not assume that lecturers or managers/supervisors at the host organization already possess the skills to be mentors. Possibly it would require special training (train the trainer).

Developing European Work Based Learning Approaches and Methods' (DEWBLAM)

Running from 2003 to 2006, DEWBLAM was one of the first studies aiming towards the integration and application of WBL in HE following a common European approach. Its findings led to the preparation of eight guidelines to direct the development of WBL at European level (Schmidt and Gibb, 2009):

- I. Clearly defined learning outcomes for study modules and programmes;
- II. A learning agreement between stakeholders that establishes the learner's programme of study including its constitutive elements like modules, work-based projects and other requirements;
- III. A learning interview should be conducted prior to the activities to ensure the suitability of the learners to the programme.
- IV. Learners must actively within their tasks in an autonomous and self-managed way. However, they should also be supported by experts and mentors from both university and in the workplace;

- V. All practical activities should be accompanied by a reflective learning review that articulates and documents experiences, learning outcomes achieved and competencies held.
- VI. Assessment should be transparent, involving all stakeholders, and taking place at staged intervals;
- VII. Learning outcomes should be officially recognized. This is especially relevant for life-long learning.
- VIII. Systems that can accredit all levels of competence and prior learning howsoever acquired.


A summary of the recommendation given by the four studies is summarized in the checklist below:

- Robust national/regional regulatory framework;
- Alignment with market needs;
- Close collaboration between HEI and the world of work (design and delivery);
- Support to tutors and mentors (train the trainer)
- Quality assurance (learning objectives, work conditions, support to learners)

Modes of WBL delivery: Work placements, traineeships and entrepreneurship

As mentioned in the introduction, WEXHE is particularly concerned with three different modes of WBL delivery: work placements, traineeships and entrepreneurship. In this respect, national literature reviews conducted by WEXHE partner countries indicate that work placements are by far the most popular form of WBL implementation. In the northern partner countries (Germany, UK, The Netherlands), work placements are a mandatory component of a significant number of programmes, especially in universities of applied sciences and in 'applied' disciplinary areas such as business and engineering. In southern and eastern countries (Spain, Slovenia, Poland and Cyprus), work placements are also the most popular form of WBL implementation, yet not as diffused as its northern counterparts.

Also interesting is the fact that, although in all partner countries the objectives to be achieved by work placements are very similar (provide work experience, develop transversal skills, and increase employability), the interaction between HEI and companies differs significantly. In Germany, The Netherlands and the UK, work placements tend to last longer (at least one semester) and are often incorporated at curricular level with a relatively good level of HE-workplace coordination. On the remaining countries, placements do not last as long and are rarely integrated into the curriculum. In Poland and Slovenia, concerns over the lack of coordination between HEI and organizations are commonplace (Kristl et al., 2007). The consequence is that work placements are both short (three months or less) and focused on simpler tasks, with students often seen as cheap labour (especially in Poland). In Spain, on the other hand, the HE and business link is often intermediated by a strong system of job boards which inform and advise students searching for professional experience or in the process of joining the labour market (ANECA, 2015).



In regard to traineeship, WEXHE national literature reviews show that it attends two different purposes: i) to train future leaders of (especially large) organizations or ii) as a mechanism of repositioning of workforce. The first is characterized by an almost complete independence from HEIs and a highly customized design to attend company-specific needs and demands (Friedenberger, 2016). This modality is more often found in northern European countries, Germany in particular. The second is characterized by a somehow closer relationship between HEIs, companies and governmental agencies. In the UK, it often refers to a programme of training and education within the workplace that operates for young people, for example, school leavers, often serving as an alternative route to higher education, in the path to employment (Gray, 2001). In Spain, Slovenia and Poland traineeship is often mediated by a career centre within HEIs and, to some extent, treated almost like a work placement in the sense that it is regulated by a series of national regulations. In Cyprus the understanding of traineeship is similar to the UK insofar it aims to reposition low-skilled workforce into the labour market, yet often through government subsidies to companies.

Entrepreneurship is a relatively recent development in the field of WBL. It emerged with the increasing investment and proliferation of courses targeting specific skill sets, combine business acumen and creativity with the endeavour to advance market innovation, and the development of competences relating to the identification and marketisation of ideas. Perhaps surprisingly, these courses gained ground in higher education - and not so much inside for-profit organizations - initially within business schools but now spreading to other departments. More specifically, entrepreneurship initiatives aim at three target areas: development of entrepreneurial awareness, new venture planning, and incubation. Different from the other modes of delivery, entrepreneurship development is more equally spread among partner countries, with initiatives in all three target areas been found.

DRIVERS AND BARRIERS

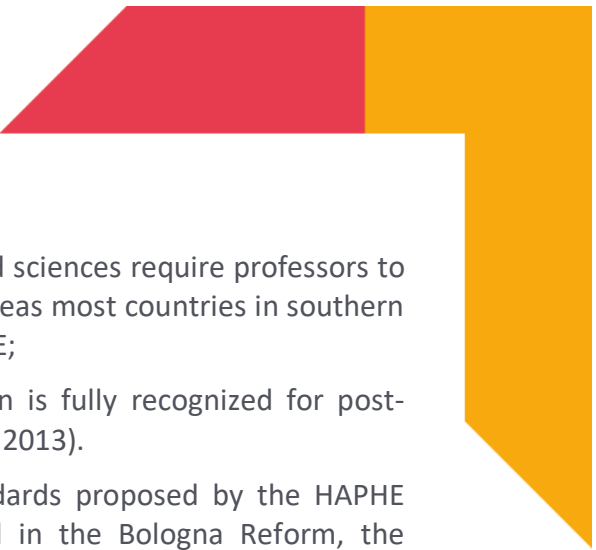
Implementation of WBL can be highly influenced by key drivers and barriers. According to Devins, et al. (2016), three elements play a critical role (both as drivers and/or barriers): i) the positive/negative national and EU-level policy context; ii) the level of (in)flexibility given to HEIs and academics regarding program development and iii) history of close/distant collaboration between industry and HEIs.

As mentioned early, in respect to policy context EU initiatives such as Europe 2020 and the Bologna Reform have put pressure in local governments to acknowledge that HE needs to accompany the rapid changes in market conditions. Such pressure is producing a fruitful environment for the spread of WBL, at least in the transnational sphere. The issue seems to be that some national policies might work for or against these established EU frameworks. In the case of the WEHE partner countries, the literature reviews show that EU frameworks have pushed the WBL agenda forward in all countries. Regarding flexibility given to HEI and professors, countries where WBL is seen as a more legit form of instruction, like in most northern European countries, the implementation of WBL is more common and, to some measure, more successful (Devins et al., 2016). In others (especially in Spain), academics still see WBL as time consuming process which does not enrich curriculum. Finally, as previously mentioned, a history of close collaboration between industry and HEIs, as is the case of German-speaking countries and the UK (Graf, 2014), also is an important driver supporting WBL. In countries where those bounds are weak the quality of WBL is reduced, with interactions limited to simple and repetitive tasks often aimed to fulfil regulatory demands.

Additional barriers have been described by past research. The lack of a common understanding of the term WBL makes it harder for policymakers to report it in policy documents. Also, some countries impose strong regulation in respect to the level of partnership that can be established between HEI and companies, as education is often state-funded yet employers are beneficiaries of cheap, qualified labour force and in some cases, also incurring in intellectual property benefits (Sweet, 2014). On the other hand, companies also pose barriers to WBL considering that they are assuming a number of risks related to the integration often unskilled learners into a production process which is normally complex.

Finally, the lack of harmonization in program organization, curricular development, staff qualification and integration of practical activities in professional higher education institutions across Europe is an obstacle for the transfer of best practices and development of a more concise research base. Such conclusions were portrayed in the previously mentioned HAPHE study, which found out that there is a lack of harmonization and transfer of best PHE practices across Europe. For example, the study found out that around 30% of PHE programmes in Europe do not offer any form of practice-learning phase, even when label as 'applied' courses. Such a lack of common standards is also reflected in aspects such as:

- a. curriculum development: in northern European countries like Germany and the Netherlands the participation of companies is commonplace, whereas in others, like Portugal, there are no differences in the curriculum from universities of applied sciences and research-based universities;

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- b. staff requirements: German universities of applied sciences require professors to have at least 5 years of practical experience, whereas most countries in southern Europe practical experience is not required for PHE;
 - c. Recognition: In some countries, PHE qualification is fully recognized for post-graduate studies and in others not (Camilleri, et al., 2013).

For instance, the cross-border adoption of minimum standards proposed by the HAPHE framework would help in achieving the goals established in the Bologna Reform, the European Qualification Framework, and Europe 2020.

IMPACTS OF WBL

There are not many EU-level studies detailing the impact of WBL on employability, the development of soft skills, nor mechanisms for quality assurance. The main reason behind this lack of documentation refers to the great variety of existing WBL activities, making it difficult to map. Moreover, employability surveys are especially time-consuming and costly.

Nevertheless, two EU-wide assessment studies gave an indication of the positive impacts of WBL on employability. EU-wide REFLEX (2007) survey suggests that WBL increases a graduate's likelihood of finding a job immediately upon graduation by 44%, lessens the probability of over-qualification by 15%, and reduces the occurrence of skills mismatch by 26%. Similarly, a 2011 Eurobarometer survey showed that 44% of those who had completed some form of WBL thought that it had helped them secure permanent employment.

Particularly in the UK, where the investigation of the outcomes of WBL is more advanced, positive impacts identified by literature include increased job satisfaction and salary (Blasco et al., 2002), workplace performance (Harvey et al., 2003), commitment and adaptability (Lesley and Richardson, 2000), superior transferable skills (Davidson et al., 1993), and improving effectiveness in a teamwork environment (Hall et al., 2009). Furthermore, Blackwell and Harvey (1999) found that students who have experienced work-based learning are more likely to have permanent work. In addition to knowledge and skills, WBL in the UK had also an impact on the accessibility of higher education, changing perceptions of the role of university education and the ways in which education can be accredited. The promotion of work-based learning in higher educational institutions has provided an entry point for many into higher education who would not have otherwise considered this route or would have been put off by due to lack of confidence or aversion to the classroom environment.

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