WORK BASED LEARNING
AS INTEGRATED CURRICULUM

A FRAMEWORK FOR GOOD PRACTICE

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Acknowledgements

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1. INTRODUCTION

There is considerable interest in the reform of Higher Education Curriculum that will both support students to prepare for the workplace in the 21st Century and make a contribution to raising the economic competetiveness and well-being of citizens.

This Framework of good practice draws on research funded by the European Union Lifelong Learning (ERASMUS) programme to develop accredited higher education provision of work based learning (WBL) through the development and implementation of an integrated curriculum which matches the planning and delivery of learner experiences with employer and labour market needs. The Framework is part of a much wider study which has included a review of the current state of development of WBL developments in seven European States, 12 case studies at the programme level and one at the Institutional level and a final report all available from the Work-Based Learning as an Integrated Curriculum (WBLIC) project website (**www.wblic.org.uk**).

1.1. WHO IS THE FRAMEWORK FOR?

The Framework is primarily intended to assist those who are involved in Strategic planning, programme and curriculum development in Higher Education Establishments (HEs) and have a generally low level of awareness of work-based learning in higher education. However it may also be of interest to policy planners, employers (particularly Human Resource Development professionals) and other educators who seek to understand HE and the role that this type of curriculum can play in the reform of higher education systems which aim to improve the responsiveness of HE to employers and the labour market.

1.2. WHAT IS THE FRAMEWORK?

The good practice framework is evidence based – drawing on primary and secondary research undertaken by eight partners from seven countries in Europe. It draws on academic literature supplemented by relevant policy and practice sources, case studies of specific learning programmes conducted by WBLIC partners and feedback from a series of mini-conferences to test the applicability of the framework in different national contexts (Austria, Czech and Poland).

1.3. WHAT IS THE AIM OF THE FRAMEWORK

The framework is designed to articulate a set of indicative principles and practice guidelines to raise awareness of WBL and to inform the development of WBLIC in HE. It is intended that the principles and the questions posed by the Framework will help those with an interest in WBLIC to identify the factors that lead to successful development and formulate other questions that may be considered in a specific development context. The development of WBLIC requires much collaboration and partnership working within and between organisations and we hope that this Framework will assist with that effort and encourage the wider development of WBLIC programmes. The Framework should be read in conjunction with the detailed case studies[1] developed by partners to explore and identify good practice across a range of programmes in several European States.

2. WHY CONSIDER WBLIC

2.1. BACKGROUND

Work based learning (WBL) has a long tradition in many European countries and it has been a central element of higher education programmes in areas such as medicine and teaching for many years. It is well established in several Western European countries, where it has been associated with various types of innovation, apprenticeships and effective employer-education partnerships. However in several European countries WBL is an emerging concept and in most national Higher Education (HE) systems it constitutes a small part of HE programmes overall.

2.2. POTENTIAL TO DEVELOP INNOVATIVE PROGRAMMES

Research undertaken by partners in the WBLIC project reveals the extent of WBL in HE as highly variable and difficult to quantify within and between member states. Projects funded by the European Union (EU) such as DEWBLAM, E-View and WBLQUAL along with projects funded by national governments have helped to develop awareness and capacity to take forward the WBL agenda over several years. However there have been a number of institutional, pedagogical and ideological objections to WBL in HE which continue to hamper its development[2]. Employers generally have been slow to recognise how a partnership with HE might enhance the relevance of education for potential employees and lead to improved organisational performance.

2.3. A POSITIVE CONTEXT

The wider political context for WBLIC is arguably more favourable than it has ever been in the past, with the critical role of HE in achieving social and economic development widely recognised. There are more and more jobs both now and forecast in the future which require high level qualifications; developments in information and communications technologies present ever more significant opportunities for flexible and distance learning and some employers are seeking competitive advantage through a range of partnerships and strategic alliances with HE. The rates of innovation and change both now and in the future demand a more flexible and on-going relationship between industry and HE to ensure that organisations and economies remain competitive in the global economy.

The European Strategy 2020 sees high quality education and training systems which respond to the labour market needs of today and tomorrow as critical to making a successful transition towards a more competitive, sustainable and inclusive society. To promote creativity and innovation in European societies, the European Council recommends using curricula as an instrument to foster more learner-centred approaches in education and training and to successfully match education to labour market needs[3]. European policy documents highlight the need for industry to co-invest and participate in the development and delivery of education through WBL. Programmes that offer WBL opportunities are increasingly recognised as providing learners with the attributes and qualities that employers require in the workplace and can help to attract more mature students. These programmes are also recognised to deliver better labour market and career outcomes for students[4].

The development of partnerships between HEIs and employers is seen as a critical factor in identifying learning requirements, improving the relevance of education and facilitating access to education and learning. Work-based Learning as an Integrated Curriculum (WBLIC) directly supports this vision, improving the employability of learners seeking to enter, adapt and progress in a changing labour market whilst at the same time developing the higher level skills that are viewed as a key driver of current and future individual success and societal prosperity. Linking to the policy agenda offers HEIs and industry the potential to benefit from the funding streams associated with EU policy initiatives.

One such initiative is the European University-Business Forum (**http://ec.europa.eu/education/higher-education/business_en.htm**) which aims to give tangible support to Member States and relevant stakeholders and to positively contribute to the reforms undertaken in the Member States to improve Europe's education and training systems.

> **EXAMPLES FROM THE WBLCI CASE STUDIES APPEAR IN THESE BOXES**

> **KEY SUMMARY POINTS APPEAR IN THESE TEXT BOXES**

2.4. WHAT IS WBLIC?

There is no settled definition of either work-based learning or an integrated curriculum and the definitions are often highly dependent upon historical circumstances, pedagogical approaches and national contexts. For example a wide range of terms is used interchangeably for the concept of WBL across Europe including work integrated learning, workplace learning, work-related learning, vocational learning, flexible learning, co-operative education and problem solving.

> **Joins theory and practice and links education and industry through knowledge and experience**
>
> (University of Cincinnati - Founder of Cooperative Education)

Although the terminology used to describe practices varies, all are based on a common understanding of the importance of enabling learners to combine theoretical knowledge gained through formal study with practice/experience based knowledge gained through work. For the purposes of the WBLIC study the following definition of WBL was agreed with project partners.

> **A WORKING DEFINITION OF WBL**
>
> 'WBL is a learning process which focuses university level thinking upon work (paid or unpaid) in order to facilitate the acquisition recognition and application of individual and collective knowledge, skills and abilities to achieve specific accredited outcomes of significance to the learner, their work and the university'

The way in which curriculum is understood and theorised is contested and has altered over many years. The concept of curriculum has become broader, increasingly changing from a static document indicating the subject knowledge to be acquired at the completion of an academic year, towards a dynamic comprehensive framework embracing for example, occupational standards and defining learning outcomes, assessment, teaching and training methods[5].

> **Some characteristics of a curriculum (Cedefop 2010)**
>
> Learning outcomes
> Learning objectives
> Disciplines and contents
> Teaching and learning methods
> Duration and timetable
> Place of learning
> Assessment regulations
> Entry requirements
> Qualifications of teachers

The concept of an integrated curriculum is open to multiple interpretation and definition. For example, it may be seen as a means of supporting student mobility as a key element of the Bologna process; it may relate to the use of evidence from a variety of stakeholders to inform the design and development of a curriculum[6] or it may be seen as an innovative method of education with a broad-based, multidisciplinary, organisation-centric approach[7]. Within the context of WBLIC an integrated curriculum needs to balance employer and labour market interests with the higher level critical thinking skills associated with higher level academic learning.

> **The principle of curriculum alignment which aims to ensure that outcomes, pedagogy and assessment are well matched to the interests of the employer/labour market lies at the heart of WBLIC**

2.5. TYPES OF WBL

Work based learning embraces a broad range of learning approaches and activities and varies in terms of a range of characteristics including location, disciplines, teaching and learning methods, duration and assessment. A common form of WBL is enacted through student placements[8] and in some Member States legislation has recently been passed to increase the emphasis and quality of work placements within HE curriculum. The incidence of other forms of WBL such as full bespoke programmes designed in collaboration with employers and/or students is far less clear. The WBL element of a programme varies in nature and scope from being part of a single module to an entire programme.

It is however worth emphasising that WBL is not restricted to work placement and there are several forms of WBL. Figure 2.1 provides an insight into different generic models associated with WBL and their typical attributes.

The WBLIC Case Studies provide an illustration of several forms of WBL. For example, Work Based and Integrative Studies in England (Case Study 3) illustrates a range of Work-Based Studies Programmes at undergraduate and postgraduate level. The Masters in Innovation and Development of Business Project (Spain) (Case Study 1) and Prozesstechnik in Germany (Case Study 7) provide an indication of a programme based largely on reflective assignments and work projects. The Bachelor in Business Leadership and Corporate Management in England (Case Study 14) is a three year work-based programme with year 1 based in the university and years 2-3 spent with an employer. Placements and Practicums feature in several case studies including Bachelor in Social Work (Austria) where the Programme includes three phases of work experience (two, four and fourteen weeks (Case Study 2), Bachelor of Arts in Applied Informatics (Poland) includes 120-192 hours in work placement (Case Study 4), Bachelor in Business Economics (Finland) includes a mandatory 3-month work placement or the 4 year Diploma Programme in Production technology and Organisation (Austria) which adopts alternating periods of academic education and work periods with 24 months working full time with a company (Case Study 11). These examples represent the tip of the iceberg in terms of the variety of forms that WBL can take in HE.

2.6. SOME ISSUES TO CONSIDER BEFORE DEVELOPING WBLIC

HE systems are comprised of a range of universities with differing foci typically (but not restricted to) research-intensive and applied universities. WBL activity tends to be most prevalent in applied universities where the mediation of academic and professional or employer interests plays a key role in curriculum development. However it is often difficult to generalize between and within national HE systems given the dynamic nature of programme development apparent in research-intensive and applied universities at the institutional level. There are considerable differences between traditional and work-based learning approaches to higher education which means that WBLIC may not be viewed as an important development for every university. Some of the main differences are outlined in Figure 2.2.

The main differentiating factor associated with WBLIC is the extent to which the HEI or employer (labour market) influences the development and delivery of provision. This can challenge the traditional approach of HEIs as purveyors of knowledge and influence the nature of the knowledge creation moving it away from an approach based on knowledge transfer to one of knowledge exchange. This approach can sit uneasily with a view that may prevail in some higher education institutions, that there is much more to higher education than preparing learners for work. It may seriously challenge existing philosophical underpinnings and approaches to, for example pedagogy, quality assurance, the use of technology to support delivery and the skill set of existing academics. The development and sustainability of WBLIC is likely to require a concerted effort to overcome social, economic and cultural barriers to its development which may exist at an institutional level and be reinforced by the regional or national regulatory environment.

Figure 2.1 Different types of work-based learning[9]

MODEL	TYPICAL ATTRIBUTES
Work-based studies degree	Content negotiated with learner (which may have some employer input)
Degree with reflective assignments and thesis based on work projects	Content designed with contribution of employer and learner
1st year in HEI and subsequent years (2-3) in work	Work based content negotiated with employer and individual
"Sandwich" year, work-placement, practicum, work experience, project-based, internship within programme of study	Content designed with employer and temporary work with employer (fixed and variable duration)
In-work training/education*	Short courses influenced by employer/ professional standards
Enterprise/business start-up**	Full time students formulate a business plan and may go on to create and register a company
Change management partnerships*	Content largely negotiated with employer

*Not usually accredited
** Does not usually include working in partnership with an employer and consequently not viewed as WBLIC

Figure 2.2. Differences between traditional and WBL approaches to Higher Education[10]

	TRADITIONAL	WBL
DRIVER	Government/HEI	Employer or group of employers/ HE Champions
LOCATION	Mainly university campus	Often employers workplace
MODE OF DELIVERY	Mainly face to face, academic-student	Often through academic and practitioners, facilitation and blended (combination of distance and face to face) learning
FOCUS	Mainly academic–disciplinary	Linking Theory and Practice
NATURE OF CURRICULUM	Significant theoretical and conceptual elements determined by HE	Significant practice based elements determined by employer/learner
QUALIFICATIONS	Degree/Diploma/Masters	Credits towards Degree/Diploma/ Masters
STUDENT COMMITMENT	Usually full-time	Usually employed or defined periods of work experience
RECOGNITION OF PRIOR LEARNING	Limited	Can be substantial
TEACHING STAFF	Mainly full and part-time academic staff	Mixture of university academics, employer trainers and third party tutors
TEACHING MATERIALS	Developed and owned by the university	Often shared between university and employer
FUNDING	Government	More varied -. may include employer sponsorship, individual learner, government
QUALITY PROCEDURES	Well established with external review	Often aligned with employer interests
TIME TO MARKET FOR A NEW PROGRAMME	Slow (years)	Quick (months)
AGE OF STUDENTS	Majority 18-23	Majority mature (23+)
LEARNER SUPPORT	Primarily HEI	HEI and employer
EVALUATION	Primarily HEI	Jointly with employer/student/HE

3. THE CURRICULUM DEVELOPMENT CYCLE

3.1. INTRODUCTION

The framework (Figure 3.1) adopted for the WBLIC research draws on a simple systemic development cycle which will be familiar to many involved in the development of university curricula. Where traditional approaches to curriculum development are grounded in the philosophy and theories of academic disciplines, WBLIC is largely founded upon the identification of labour market need as a key driver of programme development. The WBLIC approach is characterised by employers and the requirements of the labour market exerting an influence on the development and delivery of the curriculum at each stage of the development cycle.

Figure 3.1: WBLIC Development Cycle
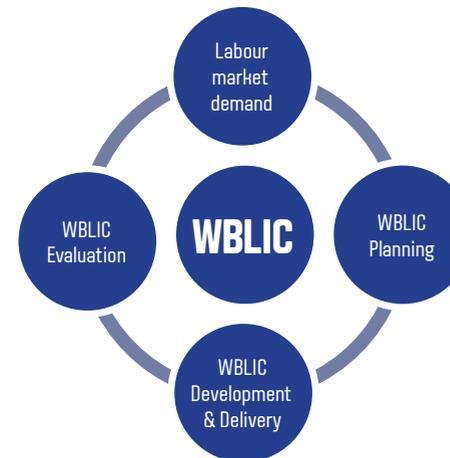
3.1.1. LABOUR MARKET DEMAND

At the heart of the distinctive nature of WBLIC is the role of the external organisation (employer or intermediary/ social partner representing the interests of a group of employers) in the planning and delivery of learning activities that are responsive to the needs of a specific workplace, group of workplaces or labour market need. The effectiveness of the mechanisms used by HE to identify opportunities to anticipate or respond to labour market needs are a key element of successful WBLIC development.

3.1.2. PLANNING

The national or regional regulatory environment, often dominated by concerns associated with the quality assurance of provision is an important factor influencing the devlopement of WBLIC related curriculum. This regulatory framework, influences institutional responses to WBL and within this context, curriculum can be understood as a planning instrument which sets the framework for a specific course programme design. A planning curriculum is often a normative document ensuring that learning programmes have, for example, particular attributes, pedagogical approaches or anticipated outcomes.

3.1.3. DEVELOPMENT AND DELIVERY

The curriculum can also be understood as a specific course or programme developed for a definite group of learners and/or employer(s) in a given learning setting, taking into account (but not limited to) the particular needs of learners and/or employers. The curriculum may include reference to pedagogy, academic or workplace content, location, use of technology, assessment criteria or staffing for example. The focus of the case study research underpinning the WBLIC project lies at this, programme level.

3.1.4. EVALUATION

A range of evaluation approaches can be used to inform the assessment of performance of an intergrated curriculum and its subsequent (re)-design. The significant role that employers play in this part of the curriculum is a key characteristic of WBLIC.

3.2. LABOUR MARKET DEMAND

To be effective in meeting employer or labour market needs, WBLIC programmes need to be able to capture and translate relevant labour market intelligence and use it effectively in the design, development and delivery of learning programmes. A labour market can be very small, potentially involving a handful of workers from a specific company or much bigger, perhaps operating on a regional, national or global scale. The nature and extent of existing or anticipated knowledge or skills demand within for example specific occupational, geographical or sectoral labour markets can often be difficult to specify or measure. However a good understanding of the

nature of potential demand for a learning programme is required to provide a sound foundation for the subsequent planning, delivery and sustainability of the programme and its match with the labour market.

The research underpinning the development of WBLIC identifies three key mechanisms that are used to provide information on the needs of the labour market and support successful WBLIC development; labour market forecasts, employer representative groups and direct working with employers. These mechanisms often work in combination to inform the design, development and implementation of WBLIC programmes.

Key sources of labour market intelligence to support WBLIC

Labour market forecasts

Employer representative organisations and social partners

Direct Engagement with employers

EXAMPLE A

Socio-economic and demographic changes have informed the development of a BA in Social Work in Austria. (Case Study 2)

Labour market research identified a lack of chemical engineers and informed the development of a Bachelor Course 'Prozesstechnik' in Germany. (Case Study 7)

Forecast increases in Information Communications Technology jobs and their cross disciplinary nature informed the development of a BA in Applied Informatics in Poland. (Case Study 4)

Labour market forecasts are often a key element in the design of WBLIC. Current and future projections of the type and nature of professional occupations requiring higher level skills both now and in the future play a key part in the development of WBLIC programmes. The WBLIC case studies suggest that in many instances labour market forecasts of various types (see Example a) have played a key role in identifying a market for HE programmes for both learners seeking to enter the labour market and those already employed.

EXAMPLE B

In Spain, the Valencian Business Confederation (CEV) plays a key role in the design, development and evaluation of the Masters in Innovation and Development. CEV provides information on the management challenges and techniques that its business members want (e.g. through surveys and networking), contributes to the on-going design of the programme and supports the marketing and promotion of the programme. (Case Study 1)

Employer representative organisations and social partners can play a key role in providing intelligence for HE to develop integrated curricula. Various employer representative groups have contributed to the curriculum development process in the WBLIC case studies and have helped to identify the need for specific programmes including the undergraduate Innovation and engineering products and processes programme in Spain and a wide variety of bespoke leadership and management provision in England. The example of the Valencian Business Confederation (Example b) provides an illustration of the role of the employer representative body as an instigator of WBLIC as well as its on-going involvement in the development and delivery of the programme

A further driver of WBLIC development comes through direct engagement with employers. Informal or semi-formal contacts between HE and industry can be many and frequent and taken together form one of the richest sources of information about the labour market available to inform curriculum development. Industry liaison groups, individual employers who advise on curriculum changes and employers who provide placements for students are examples of this. The extent to which universities use this intelligence as a strategic resource influences WBLIC development. Units such as the careers service are often an under-used resource in terms of curriculum development. Most contacts between HE and the labour market remain at the individual level, between individual academics and employers and the opportunity to develop labour market intelligence in a systematic way to underpin curriculum development is often unrealised.

The conversations between employers and university representatives can result in valuable inputs to the curriculum development process associated with knowledge or service gaps experienced by individual employers (example c) or groups of employers. The Human Resource Development Departments of medium to large companies are often

a useful source of information to inform curriculum development.

The WBLIC research provides an illustration of the key mechanisms that can be used to drive curriculum development that is responsive to labour market needs. It points to the need to be able to use a variety of sources to uncover employer requirements and the need for continuous professional development as well as for preparing new workforce entrants for the world of work. The ability of the HE to use this information to inform programme design and implementation is a key success factor for WBLIC.

3.3. CURRICULUM AS A PLANNING INSTRUMENT

WBLIC programme development takes place within a wider institutional context which is influenced to varying degrees by the National Regulatory environments in each nation state. The shape and content of this environment

varies from country to country and in turn affects the nature of a specific curriculum planning framework for learning programmes to varying degrees. In Austria for example, national regulations require Universities of Applied Science (UAS) to commission external agencies to undertake analysis of labour market need as a feasibility study for proposed programmes. In some EU States, the UK and Finland for example, universities are afforded considerable autonomy to develop and accredit learning programmes at the institutional level.

There is no 'one size fits all' approach to the planning of WBLIC. The flexibilities afforded to HE by the national regulatory frameworks have a significant influence on the institutional context surrounding the development of WBLIC. When a national framework facilitates it, higher education institutions have a choice to make in terms of the extent to which they engage with the WBL agenda and they exercise this choice to varying degrees.

A small number of universities have embraced the WBL agenda for several years and have developed a strategic approach to its management and development. This is illustrated by the case studies from England where the principles and processes of WBL are contained in a University Framework and a community of practice has been established to take forward WBL across a range of departments and Faculties (Example d).

EXAMPLE C

A bespoke programme in Strategic Communication was developed in response to a specific professional workforce development need for Professional Communicators identified by a major employer, the National Health Service in England (Case Study 5).

Key characteristics of WBLIC curriculum planning

National and Institutional Regulations

Strategic development – development of an institutional approach

Modular approach – validation and types

Admission – recognition of prior learning

Assessment – learning outcomes

Staffing – professional input

Steering Group

EXAMPLE D

The Centre for Work Based Studies (CWRS) at the University of Chester in England is responsible for the delivery of the Work Based and Integrative Studies (WBIS) Framework. The staff team in the Centre include experts in politics, former nurses, former managers, IT professionals and educationalists, which means that they are able to facilitate WBL across a range of programmes (Case Study 3).

EXAMPLE E

The use of a WBLIS framework to develop modules that build up credits to create an accredited programme for an employer is a key element to the successful implementation of WBL in some HEIs in England. These include the development of pre-validated 'template' and 'negotiated experiential learning' modules and a streamlined validation process for bespoke modules commissioned and designed on a collaborative basis by employers and learners working with the university. (Case Study 3 and 14).

Such institutions have included systems and processes to for example, shorten the timeframe associated with the development of programmes and modules which underpin an integrated curriculum whilst maintaining academic quality standards. As a result they tend to be more responsive to employer requirements (Example e).

Most programmes across Europe have moved to a modular structure and curriculum planning frameworks provide guidance

associated with module content in terms of the aims and objectives, teaching strategies, assessment and credits to varying degrees. Some module specifications make specific reference to the key role played by case studies in the curriculum; others may be designed around specific fields of study, disciplines or meta-knowledge to varying degrees. WBL modules tend to take into account a specific work context and generally contain reference to learning outcomes and/or relevant competence profiles (aligned with requirements of specific professions for example).

Many universities now offer WBL modules as part of their core mainstream provision. This type of module may differ substantially in its aims and objectives, duration and learning outcomes. For example, it may operate distinctively as a negotiated learning module with open content (e.g. governed by a learning contract negotiated with an employer), a negotiated learning module with specific careers or work-related skills content or a more traditional content driven module with a work-based dimension. The use of a module (often a work-based project) founded on a placement based on a real-life workplace question is a central element of many WBLIC. The project connects a practical problem faced by the employer with the disciplines that underpin the study programme. Knowledge is generally generated by trans-disciplinary activity, produced through the co-operation of users and participants at the place of application[11].

WBL is often viewed in the context of widening participation in higher education and providing flexible access routes for people without the academic qualifications often required for entry into higher education. Those that enter higher education without the underpinning academic knowledge may

EXAMPLE F

A 'bridge course' is offered to prepare the student for studying and learning in the workplace and is seen to contribute to the relatively low level of drop out associated with the BSc in Mechatronics and Management in Austria (Case Study 13)

Special skills that students have acquired during their previous employment can be recognised as academic achievements subject to a learning agreement in the Prozesstechnik programme in Germany (Case Study 7).

be offered an additional course to prepare the student for studying and learning or have their knowledge gained in the workplace recognised (Example f).

The curriculum planning framework may specify the rules and regulations that govern admission to programmes. In several EU States, more flexible approaches to admission are adopted and the Recognition of Prior Learning (RPL) features in several WBLIC case studies. The planning frameworks may also provide guidance to influence the composition of teaching staff (and their qualifications) contributing to programmes.

However the research underpinning WBLIC suggests that non-traditional access routes are still for a small minority of learners in higher education[12]. Most of the WBLIC case studies are based on closed programmes open only to employees of a specific

organisation or particularly gifted and talented students.

Assessment of learning is often an element of the curriculum that influences programme design. Assessment may adopt a range of approaches as illustrated in Example G. Assessment of learning at the workplace has inherent dilemmas in spite of being well established in some professions such as teaching and nursing. For less vocational subjects, the assessment of learning from a placement experience can be unfamiliar to academics and students, particularly as credit for learning is not awarded for

EXAMPLE G

The assessment strategy for the Diploma/Masters in Strategic Communication in England incorporates a variety of methods as appropriate to the learning outcomes of each module. These include reflective learning journals, presentations, long and short assignments, work-based learning projects, and assessed tasks. (Case Study 5)

In the Company Clinic in Finland, each project concludes with a written report, including a final evaluation from the company. Throughout the assignment there is continuous feedback in both directions between students and teaching/company training staff. Feedback from company tutors is received through a joint feedback discussion with students and the teacher. (Case Study 10)

experience but for the learning that arises from it. Adopting 'learning outcomes' linked to workplace competencies or knowledge when developing curricula, valuing what a learner knows, understands and is able to do on completion of a learning process, is seen by many as an effective way to enhance employability and promote active learning and inclusive teaching. The case studies point to the importance of learning contracts to guide quality and manage partner expectations associated with learning outcomes. These tend to be outlined in the quality management systems of the institution and can be negotiated with the employer and the individual learner at the programme level.

The research underpinning WBLIC suggests that the curriculum development process is often overseen by a steering group and the implementation of the curriculum is carried out by academic staff, drawn from different disciplines, many of whom have considerable industrial experience. It is often not clear the extent to which employers contribute to the group which plans curriculum guidelines for an institution or faculty. However it would appear labour market interests are more likely to contribute directly to the development team implementing a programme (see Delivery below) rather than a steering group overseeing the overarching curriculum planning framework at a Faculty or Institutional level.

3.4. WBLIC DELIVERY

The case studies provide an insight into the key characteristics of WBLIC delivery at the programme level. Many of these are influenced by the regulatory environment and institutional guidelines for planning programmes of learning which support or inhibit the development of WBLIC to varying degrees. Many of the programme leaders contributing to our study bear the 'scars of battles' fought with institutional systems that are not designed to facilitate WBLIC development.

Key characteristics of WBLIC Delivery

Employer-HE Partnerships

Academic entrepreneurs

Skills and competencies of tutors

Learner support

Technology

Management and administration

A key success factor in WBLIC development is the partnership between those responsible for quality assurance within HE and programme developers at all phases of the curriculum development.

A key factor in successful WBLIC development is the partnership between employers and the university in the design and delivery of learning at the programme level. In some universities this is established at a Faculty or Institutional level (Example h) whilst in many others it appears to be left largely to individual academics to establish and nurture these employer- university relationships.

The case studies reinforce the importance

EXAMPLE H

A network of 'partner organisations', established by the University to support the development and delivery of a wide range of work based programmes for employers influences the development and implementation of the BA Business Leadership and Corporate Management programme (Case Study 14).

of partnerships at the level of the learning programme. These partnerships are often based on the relationships formed between individual academics and representatives of the company at various levels from the leaders of the organisation who provide the senior level support for such activity to the middle managers and line managers who facilitate its delivery. These relationships underpin the initial development of learning programmes to meet labour market needs as well as the subsequent delivery of the programme (Example i) and the maintenance of the relationship that is critical to the success of WBLIC.

EXAMPLE I

Employers have played a major role in the Modern Railway Vehicles programme on an on-going basis. Many levels of Siemens management contribute to the design and delivery of the curriculum, supporting the development and delivery of learning events, projects and sponsorship agreements (Case Study 9).

EXAMPLE J

The case studies draw attention to the range of people that contribute to WBLIC including internal and external academic staff, professionals, practitioners and the students themselves. Curricula often provide guidance to influence the composition of teaching staff contributing to programmes. In Spain for example, regulations dictate that 50% of the teaching staff should be qualified to PhD level. However, in collaboration with the regulatory authorities in Spain the HEI was able to modify this to accommodate expert practitioners so that 33% of teachers on the Masters of Innovation and Development programme had to be qualified to PhD level. The majority of the teaching team (66%) are drawn from the professional world (Case Study 1).

The development of employer-HEI relationships is a team not a solo enterprise and forming and sustaining successful industry-HEI partnerships often requires a different and expanded range of skills than those most commonly found in traditional university research, learning and teaching environments. A challenge is to ensure that all the essential ingredients for success are represented in a programme development and delivery team (example J). Multi-disciplinary curriculum development teams are an essential feature of many WBL programmes and whilst the teams may vary in terms of membership and process, a key role is to engage stakeholders (and

particularly employers) in the development of the curriculum and the delivery of the programme.

The quality and flexibility of the teaching and learning staff required to support WBLIC is often a feature of effective delivery. In this instance, academics require experience of professional work which they are able to use effectively to support learning. They need to be comfortable with exchanging knowledge with companies and learners in a flexible way and acting as coaches to both learners and employers.

To maintain productive relationships with employers, academics and administrative staff are expected to demonstrate high levels of flexibility in terms of availability, and on occasion, the design of course content. In some instances the high level of flexibility acknowledges the enhanced status of the company and students as experts and challenges traditional approaches to knowledge formulation in HE.

WBLIC programmes challenge a traditional on-campus approach to programme delivery. The use of Information and Communications Technologies (ICT) to support programme delivery in dispersed workplaces is a fundamental characteristic of WBLIC. This may bring technical challenges in terms of access and compatibility of systems and pedagogical challenges in terms of learning and teaching. For some programmes delivered via distance learning the use of technology is critical to ensure that learners have access to educational resources and remain engaged in learning. There are examples of WBLIC programmes where the students use technology to support the development of peer group learning and

learning in the workplace. Students are increasingly familiar with the use of ICT and learners themselves may organise module specific websites to keep in touch with one another (Example k).

EXAMPLE K

Students engage with each other and share their learning experiences through an online discussion board each week as part of the Masters in Preventative Conservation. This approach has been implemented to help students to translate the theory that they learn earlier in the programme into 'working practice'. The Discussion Boards are seen as a useful exchange between students and the Programme Leader. (Case Study 6)

In several of the case studies it is reported that students may require significant levels of academic and psychological/ emotional support to successfully navigate the challenges presented by combining work and academic learning. In addition to support provided by university staff, workers at the organisation may be expected to mentor and support the learner in the workplace (example I). There is an increased likelihood of the students participating in WBLIC programmes being more mature than undergraduate students and this may present challenges to universities that primarily deal with younger, campus based students. Academic and administrative staff need to be made aware of these challenges and to develop appropriate strategies to be able to cope with them.

EXAMPLE L

'Academic Performance Coaches' with practitioner/business backgrounds provide support to students during their work based learning programme in the Bachelor in Business Leadership and Corporate Management in England. The type of support students receive from their Coach is intended to encourage students to blend academic theory, real-life case studies and the workplace context to benefit them as individuals as well as their employer organisation. Student are also supported in the workplace by a Mentor and a 'Senior' who are both employees of the company. Students have regular one-to-one meetings (especially in the workplace) with their university personal tutor and workplace manager (Case Study 14).

Administrative systems play a key role in the successful development and delivery of learning programmes. The administrative systems are often designed for traditional student programmes of full time study over a three or four year period. However WBLIC often places different demands on these systems in order to effectively administrate programmes which may change over relatively short periods of time and have students who have periods in and out of learning (to cope with workplace demands), funding from different sources (the student and employer) and the demands of employers. As illustrated in section 3.3 above, Institutions can develop flexible

EXAMPLE M

In the Masters in Strategic Communication in England, student feedback was gathered at the end of each module to enable fine-tuning of delivery. Further summative evaluation was informed by feedback from senior managers within the employer organisation to assess the extent to which the programme had benefited individual students and the organisation (Case Study 5).

frameworks to allow both speedy and rigorous approval of accredited workforce development. They can also adapt standard resources such as students handbooks for work-based learners and employers[13] and processes to manage the employer-HE relationship to support the delivery of WBLIC.

3.5. EVALUATING THE CURRICULUM

HEIs have traditionally seen their role as developers of the human capital of individual learners and relatively little attention has been paid to the impact of the learning on employers. The WBLIC approach seeks to re-balance this, giving more emphasis to the interests of employers in the evaluation process. An effective integrated curriculum should provide the opportunity for the creation of new knowledge for use in both the employer and the HEI so such partnerships can foster mutual learning as well as enhance the partnership between the different organisations.

However evaluation of the employer perspective is often overlooked in WBL. Evaluation tends to be over-reliant on student feedback to the neglect of other information resources[14]. The WBLIC case studies suggest that effective evaluation involves developing valid methods and indicators that reflect employer interests and the use of multiple sources of data. Feedback from employers and social partners has a key role to play in evaluation of WBLIC which has an increased emphasis on quality enhancement and programme improvement whilst at the same time assuring that traditional quality standards are met. Adopting a cyclical approach, closing the loop through critical reflection, constructive innovation and change together with sensitive communication between the employer-student and university representatives can sustain a shared transformative learning agenda and partnership between HE and employers.

4. TOWARDS A GOOD PRACTICE FRAMEWORK FOR WBLIC

Figure 4.1: A Framework for WBLIC development
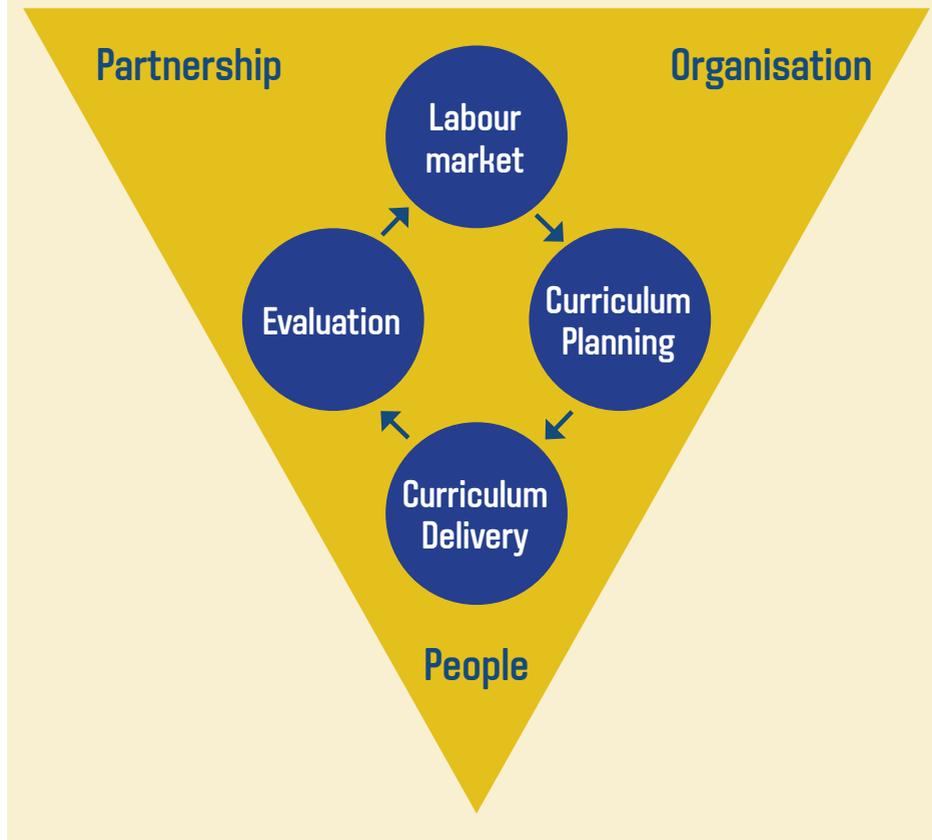
The use of the Curriculum Development Cycle has enabled the study to surface some of the challenges associated with WBLIC development and delivery and the varied responses of HE to this agenda at the programme level in seven European States. The differentiating factor in WBLIC is the extent to which employers play a role in the development and delivery of learning programmes and the principle of partnership between industry and HE lies at the heart of WBLIC development.

In order to develop a framework to inform good practice, the concept of intellectual capital[15] has been used to identify three pillars upon which to 'build' WBLIC; Partnership, Organisation and People. These pillars provide the basis for the formulation of a number of questions that can be used to reflect on current practice and to stimulate discussion and dialogue between stakeholders with an interest in developing WBLIC at the Institutional and programme levels. These questions are illustrative rather than exhaustive and may be added to in taking account of WBLIC development in differing circumstances.

4.1. PARTNERSHIP

An essential requirement for effective WBLIC is the establishment of partnerships between HE and employers in order to provide a context where learning experiences, knowledge, ideas and resources are shared. However the development of productive employer-HE relationships can be one of the most challenging areas of WBLIC as it may require a cultural shift in HE and/or workplaces. Whilst there are many examples of productive university-industry partnerships, there is limited evidence that employers more generally are knocking at the door of HE, actively seeking to formulate partnerships to develop and implement WBLIC curricula and there are well documented cultural differences between the partners, particularly in terms of different understandings in terms of 'learning' and 'knowledge' and different expectations associated with customer service and quality assurance.

Trust and the opportunity to work on problems and issues of mutual concern to produce substantive results are two important elements in developing high quality relationships and a number of principles[16] may be used to underpin HE-employer partnerships. Without strong and effective partnerships between HE and enterprises/workplaces there can be little WBLIC and this type of learning often requires complex and intense interpersonal and administrative activity which has implications for the organisation of WBLIC and the people involved in its development and delivery.

Some key principles underpinning HE – employer partnerships

Shared vision

Mutually beneficial goals

Multi-level relationships

Clear communications and support systems for all stakeholders

Regular evaluation with a focus on process and outcomes for partners

PARTNERSHIP PILLAR

In order to develop a pillar to support WBLIC the following may be considered:

Labour market need

☐ Have you considered the range of relevant labour market intelligence associated with employer needs that may be used to inform your WBLIC development?

☐ Are you able to identify and understand relevant labour market information?

☐ Have connections with employers been made through relevant networking groups (e.g. local economic development partnerships, industry liaison groups?)

Planning

☐ Have the views of employers adequately informed the institution's curriculum planning framework?

☐ To what extent is a range of labour market intelligence used to inform the development of WBLIC in a systematic way?

☐ Do you have the necessary systems, particularly in terms of learning, teaching and quality assurance to respond swiftly to employer demand?

☐ Have negotiated contractual agreements to jointly determine processes and outcomes been developed to determine and manage employer, student and HE expectations whilst also providing a basis for quality control and conflict resolution?

Delivery

☐ Does the labour market intelligence provide a sound basis to forecast potential student numbers, curriculum requirements, delivery and income?

☐ Are you able to react to labour market signals in a timely and effective manner?

☐ Are academics/professional manager adequately supported to develop HE-business partnerships?

☐ Does the university maintain relationships with Alumni and use them as an asset to, for example, target and engage employers?

☐ Are employers involved in the design, delivery and assessment of learning?

☐ Have contracts been developed to guide quality and manage partner expectations associated with learning outcomes? Do they cover Intellectual Property Rights and Financial arrangements?

☐ Have adequately resourced systems and processes to support employer, student and HEI learning including pastoral support and conflict resolution been developed to support HE-employer partnerships?

Evaluation

☐ Are you able to demonstrate the benefits of HE-industry partnerships to employers?

☐ Is employer feedback on impact on the business and quality of service delivery a key element of provision?

4.2. ORGANISATION

Developing the capacity of HE to support WBLIC often challenges the status quo across a range of critical areas including pedagogy, resource allocation, regulatory frameworks and organisational structures. The findings emerging from the WBLIC project provide an insight into the nature of the actions required to provide the structural capital necessary to successfully develop and deliver WBLIC. These include:

> ### Some key principles underpinning Organisation
>
> Systematic approach to using LMI
>
> A strategic commitment to WBL planning
>
> Policies and systems to support WBL delivery
>
> Employer contribution to planning, delivery and evaluation

ORGANISATION PILLAR

In order to develop an organisational pillar to support WBLIC the following may be considered:

Labour Market need

☐ Do you have a strategic and systematic approach to the collection and use of labour market intelligence to inform curriculum development?

☐ Do you have a careers services unit? They sometimes possess the most comprehensive labour market intelligence within HE but are often overlooked

☐ Do you have a unit with good knowledge and connections with employers and academic departments that ensure that cross-institutional links between staff responsible for employer engagement at the operational level are made?

Planning

☐ Do you have a strategic approach to the development and implementation of WBLIC including integrating a vision for WBL in strategic plans?

☐ Have you considered the cost effectiveness of different forms of WBLIC provision? Is there any guidance available to programme leaders?

☐ Do you have the Institutional Framework in place to develop WBLIC programmes in a timely and effective manner?

☐ Do you have curriculum planning guidelines (including e.g. Recognition of Prior Learning, programme validation, assessment and ethical frameworks) which are as responsive to employer

interests (e.g. timeliness, assessment methods) as they are to HE/student interests whilst fulfilling the requirements for quality assurance processes in HE?

☐ Do you have programme assessment and accreditation boards which are able to meet the interests of employers and students who may be following flexible pathways and dynamic timeframes?

☐ Has the HEI established appropriate module approval systems to meet the changing needs of employers that can be shared across faculties and disciplines?

☐ Do work-based learning outcomes have parity with academic learning outcomes?

Delivery

☐ Is the organisation able to form effective multi-disciplinary development teams drawing in an appropriate blend of employer, academic, practical, professional, administrative (including quality assurance) and relationship building skills to develop WBL in the formative stages of programme development and at various times during the lifetime of the programme?

☐ Have realistic timeframes and expectations been developed for WBLIC development and adequate resources allocated to ensure success?

☐ Has the HEI got a system in place to support the preparation of workplaces as learning places for the student and participating company?

☐ Has an effective e-learning environment been created to support curriculum delivery and students?

☐ Are policies in place to support the recruitment and utilisation of non-academic (e.g. professionals or practitioners) staff with the necessary experience and knowledge to deliver WBLIC?

☐ Are policies in place to support delivery in the workplace and at non-standard times (e.g. evenings, week-ends)

☐ Do assessment strategies enable students to demonstrate both academic and work-related outcomes?

Evaluation

☐ Do programme and module review processes and evaluations include the views of employers and identify what is working well or not so well from the employers' perspective?

☐ Is evaluation used strategically to inform assessments of quality and programme enhancement?

☐ Are systems in place to determine employer costs and benefits of WBLIC?

4.3. PEOPLE

A range of actors are involved in the successful development and delivery of WBLIC. These include internal and external academic staff, administrators, professionals, practitioners, employer representatives and the learners themselves. The skills, competencies and abilities of these actors and groups are a key factor in the success of WBLIC.

Some key principles underpinning People

Effective development and delivery teams

Champions

Availability of staff with appropriate skills sets

A commitment to working in partnership

A move towards WBLIC will require a transformational change to the traditional curriculum models currently adopted by many universities. In order to achieve this, a significant investment is necessary to develop the capacity and capability of academics and administrators to deliver a flexible and responsive portfolio of provision to meet the demands of employers and the labour market.

PEOPLE PILLAR: SOME KEY QUESTIONS TO CONSIDER IN THE DEVELOPMENT OF WBLIC

In order to develop a people pillar to support WBLIC the following may be considered:

Labour market need

☐ Do staff have the knowledge and skills to be able to identify relevant labour market signals using a variety of labour market intelligence and to use them to develop curricula which reflects employer interests?

☐ Do staff have the skills necessary to develop and maintain effective partnerships with employers (e.g. account management, mediation, conflict resolution)?

☐ Are staff able to translate (academic to business and vice versa) language effectively?

Planning

☐ Is there a champion (or coalition of champions) with the power and the skills to influence the development of WBLIC at the strategic (and programme) levels of HE and within the employer organisation?

☐ Is an effective development programme available to staff who wish to develop and deliver WBLIC?

☐ Do HE staff have the motivation and interest to move away from traditional teaching methods and classroom teaching to delivery in different settings?

☐ Are staff able to support and assess knowledge creation in a WBLIC environment?

☐ Are staff aware of the regulations (including quality assurance) governing WBLIC?

☐ Are staff able to identify, promote and develop HE-employer engagement that links into and supports wider institutional/company strategies?

Delivery

☐ Do academic staff have the ability to target and engage employers?

☐ Do employers understand the requirements of effective delivery of HE curriculum?

☐ Do you have academic staff who are committed to WBL and able to act as a Programme Leader and/or Academic coordinator with the ability to plan, search and select employers, students and teaching staff (including non-faculty professionals) to assess, monitor and improve the programme?

☐ Are there tutors with key skills and attributes including negotiation, facilitation, coaching, flexibility, resilience and relationship building in addition to core academic skills and discipline knowledge?

☐ Is there an administrative co-ordinator to collect the information to service HEI quality assurance, employer and student information requirements and to ensure that the academics and professionals delivering the programme have the time to focus on learning related activity?

Evaluation

☐ Do staff possess the knowledge and skills to conduct various forms of evaluation (e.g. formative and summative, stakeholder and impact) to assess performance and enhance quality of delivery

5. SUMMARY AND REFLECTIONS ON THE FRAMEWORK

5.1. SUMMARY

Through the development of WBLIC case studies, review of existing literature and on-going dialogue between partners in seven European States, the WBLIC cycle has provided a lens to consider the development of integrated curriculum which is influenced by employer and labour market needs. There is considerable variation in WBLIC practice highlighted by the cross-case comparison[17], particularly related to the national context and the regulatory environment which will influence the development and provision of WBLIC in different Member States. At the same time there is considerable in-country variation where the policies and practices of individual universities enable or inhibit WBLIC development to varying degrees.

In order to develop a framework to inform good practice, the concept of intellectual capital has been used to identify three pillars upon which to build WBLIC. The Framework (Figure 1) works at various levels and draws attention to the need to align academic, administrative (particularly quality assurance processes) and employer interests in WBLIC development and delivery at the Institutional, Programme and Module levels.

A set of principles (Figure 5.2) have been identified that can be used by those developing curriculum both within HE and amongst employers.

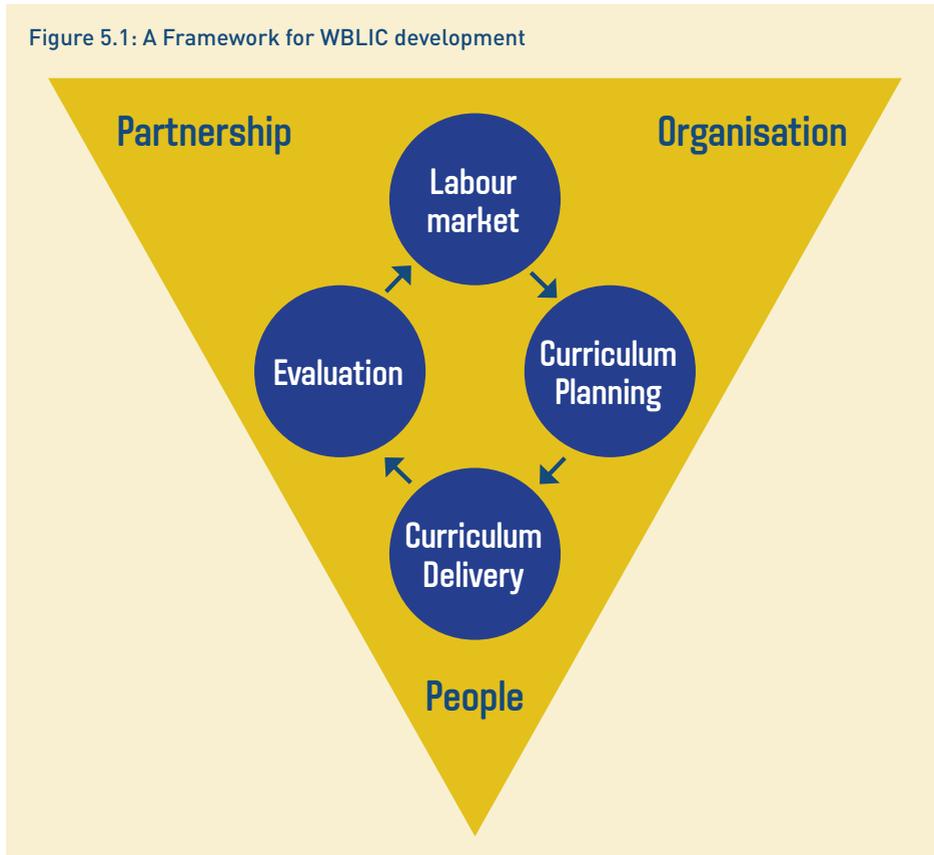Figure 5.1: A Framework for WBLIC development

Figure 5.2: Principles underpinning the framework

Partnership
- Shared vision
- Mutually beneficial goals
- Multi-level relationships
- Clear communications and support systems for all stakeholders
- Regular evaluation with a focus on process and outcomes for partners

Organisation
- Systematic approach to using LMI
- A strategic commitment to WBL planning
- Policies and systems to support WBL delivery
- Employer contribution to planning, delivery and evaluation

People
- Effective development and delivery teams
- Champions
- Availability of staff with appropriate skills sets
- A commitment to working in partnership

An accompanying set of guidelines in the form of questions have been formulated to identify some key practical 'how to' elements associated with WBLIC to be considered. These questions are illustrative rather than exhaustive and may be developed and supplemented with additional questions to suit a particular context or programme. The questions are designed to encourage reflection by HE and employers on current practice and to help to identify areas for development to underpin WBLIC. In this way it is hoped that the framework will provide a basis for discussion of the potential for WBLIC and help to identify gaps in activity and areas for action which can promote its use.

Many of the tools and techniques for successful operation of WBLIC including learning contracts, technology based learning environments and modular development of programmes is relatively well established in many universities. However a lack of employer awareness of HE and the perception that HE is out of touch, impractical and unresponsive to employer needs, continues to act as a barrier to HE engagement with employers. Evidence of the difficulty associated with engaging with industry remains and there is a need for many universities to develop the partnerships, organisation and people to develop and sustain relationships with employers that underpin knowledge exchange and innovation which lie at the heart of WBLIC.

5.2. REFLECTIONS ON THE FRAMEWORK

The validity of the Framework was tested at mini-conferences held in Austria, Poland and Czech Republic and proved to be relatively robust. Almost 100 stakeholders drawn from employers, academia and agencies with an interest in WBL from a policy perspective participated in the mini-conferences. The

Framework was presented and discussed by delegates. The framework was generally viewed as a useful way to introduce the concept of WBLIC and as a strategic guide to inform curriculum development. Alongside the framework, case study examples were introduced through Posters[18] and the first hand story of the development and experience of implementing the Bachelor Programme (Production Technology and Organisation) at FH Joanneum in Austria (Case Study 11). This proved to be particularly useful in promoting the credibility of the WBLIC approach and discussing some of the successes and barriers that had to be overcome.

A recurring theme that emerged during the WBLIC mini-conferences in Vienna, Cracow and Prague in May/June 2013 to test the framework was associated with the uncertainty surrounding assessing the return on investment associated with WBLIC. The envisaged changes to systems and processes necessary to accommodate different pedagogies or employer partnerships and the different skill-sets required by staff along with the 'additional' resources required to build capacity and to support learning in the workplace were seen to represent a significant barrier to the development of WBLIC. WBLIC was often seen as a relatively expensive form of HE and in an increasingly challenging economic environment for HE in many EU states, accurate estimates of costs and potential markets were identified as an important element of programme development. It is important for academic managers to have such information before committing to a programme and to consider this information alongside the additional benefits to be realised by WBLIC through for example improved student retention,

progression and employability of students and the wider benefits of partnership working with employers. A similar cost-benefit analysis is often conducted by employers and anecdotally the 'cost' or resourcing of partnership working with HE on behalf of employers was identified by several conference delegates. Several of the employers attending the mini-conferences, reinforced this point. However many had come to the opinion that the benefits of working in partnership with HE clearly outweighed the costs of such activity.

On a related theme, the scalability of WBLIC programmes was an issue of some concern to conference delegates. There was a general recognition that WBLIC programmes constituted a small element of overall provision in many Institutions and Member States and that considerable investment is required to increase the number of WBLIC programmes and to realise its potential in the future.

There was also considerable interest in the specific design of Work-Based programmes and modules associated with for example, the management of risk (including health and safety) associated with learning outside the university and issues associated with ownership of Intellectual Property Rights identified as key areas for consideration. A recurring theme was the design of the placement or practicum element of learning and in particular the length, quality and timing of the period in work. The discussion in the mini-conferences tended to suggest that there is no 'one right way' that is applicable to all programmes in all circumstances. Careful planning is important to ensure that the period in work meets the intended learning outcomes of the student and the expectations of

the employer. Relevant regulations at the national and institutional level need to be taken into full consideration in the design of such work-based learning activity and the partnership between HE and employers lie at the heart of this type of provision.

5.3. POLICY IMPLICATIONS

The implications for policy arising from the development of the Framework and the underpinning research are discussed in the Final Project report (http://www.wblic.org. uk/). The implications are many and varied and include the need for additional research to support the development of the evidence base associated with the scale, scope and effectiveness of WBLIC activity at European, national and Institutional levels and targeted support to 'pump-prime' activity to overcome considerable cultural, social and economic barriers that continue to exist.

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For futher information please visit:

Our project website: http://www.wblic.org.uk/

See the Lifelong Learning Programme: http://eacea.ec.europa.eu/llp/index_en.php

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