



7TH UNIVERSITY BUSINESS FORUM

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Input Paper



Contents

1.0	Introduction	1
2.0	Modernisation, relevance and skills	2
2.1	The focus of the UB Forum.....	2
2.2	Labour market change and the future of work.....	2
2.3	Skills gaps and mismatches.....	3
2.4	EU action.....	3
3.0	Driving regional development, innovation and smart specialisation	5
3.1	The focus of the UB Forum.....	5
3.2	University-Business Cooperation in regional development and innovation	5
3.3	Pathways to knowledge-based development and innovation in regions	6
3.4	EU action.....	6
3.5	The importance of Smart Specialisation	7
4.0	Evolution and Innovation	8
4.1	The focus of the UB Forum.....	8
4.2	Shifting roles in a changing society: what path for HEIs?	8
4.3	Social economy and social and cultural entrepreneurship	9
4.4	EU action.....	10
5.0	The current state of UBC in Europe.....	11
5.1	The focus of the UB Forum	11
5.2	Developing the knowledge base of UBC.....	11
6.0	REFERENCES.....	12

1.0 Introduction

The European Commission provides support to higher education institutions and businesses by strengthening the knowledge triangle (education-research-innovation) through diverse actions and initiatives relating to University-Business Cooperation (UBC). One of the key initiatives is the University-Business Forum (UBF) which for nearly ten years has brought together higher education institutions, businesses and other stakeholders to:

- Encourage the sharing of knowledge and experience, support mutual learning;
- Create long-term partnerships and opportunities; and
- Drive innovation, entrepreneurship and creativity.

Since 2008, twenty UB Forums have been organised: six high-level European University-Business Forums in Brussels and fourteen thematic events in the Member States, namely in Austria, Finland and Spain (Basque Country) during 2016.

The Forum has proved its value as a platform for the dissemination of good practice, exchange of experience, networking and the development of partnerships between higher education institutions and businesses. The different UB Forum events have also generated new ideas, projects and policy tools. Notable examples of UB Forum ideas that have been converted into European policy tools are the Knowledge Alliances under Erasmus+ and HEInnovate, a self-assessment tool for higher education institutions to both measure and develop their innovative capabilities, and help them learn from case studies and other training materials.

This 7th European University-Business Forum, with the theme of “*University-Business Cooperation – for Innovation and Modernisation*”, will take place on 6-7 April 2017 in Brussels. The Forum encourages and supports a dialogue on the mechanisms for effective university-business cooperation, and provides an opportunity to hear how innovation and impact are generated through more effective links and relationships between higher education institutions and business.

Policy leaders, higher education and business representatives, debate the challenges and opportunities presented by university business cooperation through case studies and examples of good practice. The Forum is structured around high level panel discussions, key note speeches and four streams of moderated workshops which will allow participants to engage in lively discussions across the following themes split into separate sessions:

- **Modernisation, Relevance and Skills:** Overcoming the skills mismatch and Innovation Competencies;
- **Driving Regional Development:** University-Business Cooperation and Regional Innovation and Higher Education and Smart Specialisation;
- **Evolution and Innovation:** Shifting roles in a changing society; What pathways for HEIs? and Social and Cultural Engagement.
- **“The Current state of university-business cooperation in Europe”:** A presentation and discussion of the first findings and results of the ongoing study and survey commissioned by the European Commission

This paper provides input to the themes of the 7th UB Forum.

2.0 Modernisation, relevance and skills

2.1 The focus of the UB Forum

The relevance of higher education, the skills, knowledge and competences that it delivers to students, remain significant policy issues. The challenges are manifold, and are not restricted to students from higher education, but also to people needing to re-train or “up-skill” as we see the restructuring (through automation etc.) and decline of many traditional industries, and the emergence of new sectors with their demands for new skills and competencies.

Flexibility and innovation are needed to respond to these challenges, and improved cooperation between employers and higher education institutions continues to be an important means of response. The UB Forum will look at initiatives that have been developed recently, will explore the success stories, and will encourage the participants to debate the challenges that remain and what new or improved approaches can be taken in future.

2.2 Labour market change and the future of work

The pace of technological innovation is increasing which will mean more challenges for the labour market and education sector (Arntz et al., 2016, Eurofound, 2016). The McKinsey Global Institute survey shows that 44% of firms which reduced their payroll since the financial crisis of 2008, had done so by means of automation (Manyika et al., 2011). Software technologies are disrupting labour markets by increasing unemployment in routine as well as non-routine tasks (Brynjolfsson and McAfee, 2012).

The labour market is becoming more and more polarised, with middle-income routine jobs being hollowed out, while jobs are increasing in high-income, cognitive sectors and low-income manual occupations (Goos and Manning, 2003). High-skilled workers have moved down the occupational ladder, taking on jobs that were traditionally done by low-skilled workers, and pushing low-skilled workers ever further down the ladder or out of the labour force entirely (Beaudry et al., 2013).

Recent technological breakthroughs are, in part, due to big data. Estimates by McKinsey Global Institute (Manyika et al., 2013) have suggested that big data and sophisticated algorithms could substitute 140 million knowledge workers worldwide. Not all jobs however, are as vulnerable to automation (Manyika et al., 2013). A recent report notes that disruptive businesses such as Uber and Airbnb, coupled with new ways of finding work (through LinkedIn, or Monster.com for example) “*are challenging conventional ideas about how and where work is undertaken*” (Manyika, 2016).

Frey and Osborne (2013) estimate that occupations at low risk of substitution include generalist occupations requiring experimental knowledge, and specialist occupations involving creativity and innovation (e.g. the development of new ideas and artefacts), which means most management, business and finance occupations as well as jobs in education, healthcare, arts and media. They require skills like “creativity”, “originality”, “negotiation”, “persuasion”, “social perceptiveness”, and “assisting and caring for others”.

For higher education institutions (HEIs), the changes in the labour market point to a need for action in order to maintain their efforts to modernise and offer the relevant skills. Frey and Osborne (2013) suggest that low-skilled workers will “*reallocate to tasks that are non-susceptible to computerisation*”, meaning that they will take up tasks which require creative and social intelligence. For this to happen they will need to

acquire creative and social skills. This in turn will require new approaches from lifelong learning providers in order to "upskill" and "reskill" employees. The universities' role in lifelong learning varies across countries and institutions, but overall higher education institutions do not play a major role in the provision of lifelong learning in Europe.

Another cause for concern for HEIs, is that the jobs in white-collar industries for which higher education is an entry-requirement are going to change substantially in the coming decades (Usher, 2016). HEIs will need to develop a field specific (faculty-level), future-oriented analysis of the long term trends on how information technology is re-aligning work in different fields and then revise their curricula accordingly.

2.3 Skills gaps and mismatches

Currently a large number of highly qualified young people in Europe work in jobs that do not match their talents and aspirations. At the same time, 40% of employers reported that they cannot find people with the skills to innovate (Commission, 2016d), and the European Commission has been active with initiatives such as the Digital Skills and Jobs Coalition (Commission, 2016a), and the launch of the new Skills Agenda for Europe¹. Not enough "*people have the entrepreneurial mindset and competences to start their own business and keep adapting to evolving requirements of the labour market*" (Commission, 2016c).

The competences and skills needed to thrive, both in the world of work and in life in general, are evolving due to rapid technological progress and societal changes. In order to ensure that students will acquire a variety of skills, including innovation competences, higher education should allow for greater flexibility and more diverse teaching and learning methods that can address the needs of the diverse student body. Innovation competencies are essential for graduates and professionals to be successful in this changing and evolving environment. These, and other competences, are being considered in the revision of the framework on key competences for lifelong learning (Council, 2006), to be published in 2017.²

2.4 EU action

The European Union makes an important contribution to strengthening Europe's skills base. Notably in the European Semester, through the *Europe 2020 Strategy* with its two-fold education target, the Investment Plan for Europe, the *ET 2020 strategic framework* for cooperation in education and training, and through the intercession of the European Structural and Investment Funds. The European Social Fund and the European Regional Development Fund will inject over €30 billion to support skills development in the 2014-2020 period, and the Erasmus+ programme supports skills development in education and training with nearly €15 billion.

The New Skills Agenda for Europe was adopted in 2016 by the European Commission to ensure that people develop a broad and adaptable set of skills. It calls on Member States and stakeholders to improve the quality of skills and their relevance in the labour market. It identifies increasing skills levels, promotes transversal skills and finds ways to anticipate the labour market's needs, including dialogue with industry, as a key to success.

The renewed *Agenda for the Modernisation of Higher Education* will be launched in May 2017 and will emphasises the importance of teaching in higher education as one of the key pillars. The related public consultation process highlighted the need for more UB cooperation and work-based learning to address

¹ [New Skills Agenda for Europe](#)

² [Review of the 2006 Framework of Key Competences for Lifelong Learning](#)

the skills mismatch (Commission, 2016b). Close to 90% of respondents to the online survey agreed that there should be more opportunities for students to gain work experience during their studies, and close to 86% thought that cooperation between higher education and business in the design and provision of courses should increase.

3.0 Driving regional development, innovation and smart specialisation

3.1 The focus of the UB Forum

The many ways in which University-Business Cooperation (UBC) can help regional innovation ecosystems flourish is a theme that has grown in importance for the UB Forum. UBC can also make a very important contribution to implementing Smart Specialisation³; the EU's main policy instrument for innovation in the regions. With smart specialisation, HEIs and businesses are increasingly being called upon to help address regional priorities and challenges, both economic and social. The UB Forum will address the regional context for University-Business Cooperation and highlight the experiences of regional authorities and HEIs in building smart specialisation.

3.2 University-Business Cooperation in regional development and innovation

UBC can play an important role in driving regional development and innovation. Despite the technological progress that has given individuals and businesses the power to collaborate and compete globally, proximity remains a major driver for innovation. Proximity and colocation also boost UBC. For example, evidence from Europe and the US shows that effective cooperation rarely spans distances between partners of more than 50 kilometres, while world class innovators in the UK, Switzerland and elsewhere are moving their teams to higher education campuses from distances as short as ten kilometres (Madelin and Ringrose, 2016).

HEIs provide two critical factors that allow local companies to increase their competitiveness through innovation: knowledge and skilled human capital. The proximity of HEIs and businesses allows innovation to flourish through both formal and informal interactions between faculty and students with local firms, as well as knowledge exchange when graduates enter the workplace or researchers engage in RDI collaboration.

In addition to their own discoveries, higher education institutions (HEIs) can help businesses in the region in more indirect ways. They can attract new human knowledge and financial resources from elsewhere. They can adapt knowledge originating elsewhere to the needs of the local economy. They can offer relevant education and training. Higher Education Institutions integrate areas of technological activity, unlock and redirect knowledge that is unexploited or underused. They can provide a public space for ongoing local dialogue with stakeholders on how technologies and markets will develop in the future (Lester, 2005).

This is why it is important for regional authorities to provide framework conditions and launch/support initiatives that stimulate and incentivise cooperation between higher education institutions and companies.

³ [EU Science Hub - Smart Specialisation](#)

3.3 Pathways to knowledge-based development and innovation in regions

There are no one-size-fits-all solutions for UBC at the regional level. The shape and the form this cooperation takes in practice depends on many different things such as the local context, industry composition and its technological transformation, national and regional policy frameworks, an HEI's profile covering both research and teaching, its capacity and leadership, as well as the presence of other educational and research institutions in the region (Commission, 2011a, OECD, 2007, Puukka, 2016).

Academic literature and, increasingly, policy makers, acknowledge four to five different pathways to knowledge-based development and innovation in regions (Lester, 2005, OECD, 2007, Foray et al., 2009). Each of these pathways assign distinct roles to HEIs, offering opportunities for the diversification of missions among institutions:

- Developing new economic activities through radical technological change and breakthrough innovations;
- Rejuvenating traditional sectors through higher value-added activities and new, niche markets;
- Modernising specialisations by adopting and disseminating new technologies;
- Technological diversification of existing specialisations into related fields; and
- Exploiting open and user-led innovation, social innovation and service innovation.

Each of these pathways benefit from access to an HEI knowledge base but the path of radical change and breakthrough innovation specifically requires scientific excellence generated by research-intensive HEIs. This means that all kinds of higher education institutions can play a role in UBC. Often the biggest and fastest returns come from introducing innovation that is new to the region or company, and will not require breakthrough innovations. Here, higher education institutions can support change by transmitting innovative solutions to the region and companies (Madelin and Ringrose, 2016).

Despite the strategies and policies, as well as the recognition of the benefits of the HEIs' role in regional development and innovation, progress in HEIs remains uneven, due to challenges and constraints at the national, regional and institutional levels.

3.4 EU action

EU policy supports the active role of higher education in regional development. The *Agenda for the Modernisation of Higher Education* (European Commission, 2011b) placed an emphasis on the *regional* knowledge triangle, combining research, education and innovation. The update version, to be published in May 2017, will highlight regional innovation as one of the three pillars of modernisation of higher education. *Smart Specialisation Strategies* are a prerequisite for European Structural and Investment Funds⁴ which emphasise an active role for universities in local partnerships, backed up by significant funding incentives. The UB Forums, and its spinouts; the Knowledge Alliances and HEInnovate,⁵ support the active role of HEIs in cooperation with business. HEInnovate, for example, provides a subjective self-assessment tool for all those in higher education interested in developing a more active and engaged institution which collaborates with business and society.

⁴ [European structural and investment funds](#)

⁵ [HEInnovate](#)

3.5 The importance of Smart Specialisation

The key driver for UBC at the regional level has been the EU requirement of *Smart Specialisation Strategies* as a prerequisite for European Structural and Investment Funding (ESIF). *Smart Specialisation Strategies* are now a key EU policy instrument used to boost innovation in the regions through an “entrepreneurial discovery process” that matches the needs and opportunities of that region. They underpin spending on innovation by the European Regional Development Fund, as well as other European and national programmes. More than 120 *Smart Specialisation Strategies* have been developed, mostly at the regional level. A total of €66 billion has been or will be allocated directly during the period of 2014-2020 to implement smart specialisation strategies.

With smart specialisation, universities and companies are increasingly being called on to help address regional priorities and challenges – both economic and social – in order to boost innovation across all European regions. The key idea is that the continuous interactive process between universities, businesses, the public sector and other actors will generate new ideas and help bring them to market (Commission, 2010, Foray and van Ark, 2007, Foray et al., 2009, Foray et al., 2012, McCann and Ortega-Argilés, 2011).

HEIs can play an important role in the design and implementation of the regional smart specialisation process (Marinelli et al., 2016). They can contribute to the assessment of knowledge assets, meaning placing a value on people’s skills as individuals as well as their collective capabilities and competencies, identify research domains with strengths and high potential, and contribute to strategic priority setting and making sound political decisions. Drawing on their diverse profiles, knowledge fields and capacities, higher education institutions can also be involved in developing, refining and achieving their smart specialisation objectives (Fotakis et al., 2014, Goddard et al., 2013, Puukka, 2016).

The initial experience and findings from the implementation of the smart specialisation strategies, shows uneven development across countries and institutions, underlining the importance of ongoing university-business cooperation. Currently the European Commission’s Joint Research Centre in Seville (Smart Specialisation Platform) is undertaking a consultation on, among other things, the role of HEIs in smart specialisation to support progress on the ground.⁶

⁶ [Public consultation on Smart Specialisation: a fresh approach to the European growth and jobs through regional innovation strategies](#)

4.0 Evolution and Innovation

4.1 The focus of the UB Forum

The mission of HEIs has changed, expanded and evolved in recent decades. This is reflected in the changing place and role of the HEI, as it tries to fit in with a shifting social, cultural and economic environment. This evolution reflects the dynamism of the job market where new jobs and skill sets keep emerging as well as the changing social landscape in Europe. One such example is the trend for ethical start-ups and cooperatives, often in response to the failings of established state based institutions and services. The continued surge of the IT sector and financial systems is another example.

This UB Forum will examine different evolutions in the HE sector and the workplace.

New approaches to support HEIs to adapt to this changing environment and to their shifting role will be addressed within the broader debate on how HEIs and business can cooperate to help drive social and cultural innovation.

The UB Forum will present and discuss examples of how HEIs and businesses cooperate to address societal challenges; how HEIs reach out to the community to solve the problems faced by its citizens and to stimulate social and cultural innovation. It will also present examples from several institutions that have used the HEInnovate tool as a means of diagnosing, assessing and changing the way that their HEI works in a holistic manner, and discuss the next stages in the evolution of the innovative HEI.

4.2 Shifting roles in a changing society: what path for HEIs?

HEIs have been evolving in response to the challenges of a changing society and economy. They have been adapting their organisational (research and teaching) structures to meet new societal and economic demands. For instance, the 20th century standard model of a university or higher education institution, "safely" at 'arm's length' from the world has, since the 1990s, gradually been replaced with the idea of an HEI that is rooted within its specific economic and social context.

The 20th century standard model of the HEI prioritised individual curiosity-driven research, regarding teaching as being a secondary activity, with limited or no responsibility for civic engagement. According to Gibbons et al. (Gibbons et al., 1994), the focus was on the discipline-based, curiosity-driven, individual pursuit of new knowledge, the 'Mode 1 knowledge production'.

In line with Ernest Boyer's idea of the four roles of higher education⁷ highlighting university engagement and "*service to the nation and the world*", the notion of HEI engagement has become connected with widening participation, outreach, university-business collaboration and other third mission activities (Boyer, 1990). Typical of the new university or HEI model is 'Mode 2 knowledge production': a mutually beneficial approach to university-business/society collaboration, which is problem-oriented and solution-

⁷ The scholarship of discovery that includes original research that pushes the knowledge frontiers; The scholarship of integration that involves synthesis of information across disciplines, place discoveries in a larger context and create more interdisciplinary conversations; The scholarship of application (or the scholarship of engagement) that refers to the service within or outside the University and involves application of research results that can be shared with and/or evaluated by peers; and The scholarship of teaching and learning.

driven, and is typically conducted by interdisciplinary teams, actively engaged with society (Gibbons et al., 1994).

Burton Clark's influential work the "*Entrepreneurial pathways of university transformation*" characterised the entrepreneurial HEI, and offered a roadmap of how to become one (Clark, 1998). An Association of Commonwealth Universities project in 2000 focused on the civic engagement of HEIs. One of the contributors, David Watson, followed up with a book "*Managing Civic and Community Engagement*" (Watson, 2007).

This work has been followed by a range of studies, reviews and projects focusing on the relationship between HEIs and the marketplace, their role in innovation and entrepreneurship. At the national and institutional level, higher education policy responses have focused on university-business cooperation, technology transfer, technology-based innovation and entrepreneurship. Recently there has been an increasing focus on social innovation, creative and cultural entrepreneurship, and cooperatives and what this entails.

4.3 Social economy and social and cultural entrepreneurship

These developments are connected to the rise of the social economy largely in response to global crises (finance, food, energy), digitalisation and the growth of precarious employment conditions, which are hitting younger generations and people with low skills. The social economy can be a key mechanism by which people can gain control over resources and decision-making processes that affect their lives; can help address market failures and enhance social cohesion, identity and job satisfaction.

A significant proportion of Europe's economy is driven by the social economy: the 2 million social economy companies represent 10% of all EU businesses and 6% of the workforce (4.5 million workers). Cooperatives, that give surplus back to their members who are also their customers, producers or employees, play an important role in the social economy ecosystem. Some 180,000 businesses in Europe are cooperatives. In France, the social economy represents 10% of GDP and provides more than two million jobs, representing 14% of private employment in the country (Rombi, 2017).

Social, cultural and sustainable entrepreneurship is in part driven by the social economy, and has received significant attention in the last decade in terms of resources, investment and analysis. These forms of entrepreneurship are often complementary and require both creative and innovative skills as well as business skills. The 2016 public consultation for the renewal of the *Modernisation of Higher Education Agenda* showed that only one out of ten respondents to the survey strongly agreed with the idea that higher education courses encourage students to be creative and innovative (34.63% thought that courses encouraged creativity and innovation 'to some extent').

Social entrepreneurship addresses social challenges and meets social needs in an innovative way while serving the general interest and common good. Instead of profit maximisation, social entrepreneurship aims to create social value and generate impact by contributing to inclusive and sustainable growth. The Social Enterprising Europe Programme prepared a series of case studies and information sheets which highlight the diversity of target groups and company aims⁸. The social economy contributes 10% of GDP of the European economy and employs more than 11 million workers, about 4.5 % of the active EU population. 1 out of 4 new businesses that are established every year in the European Union, and up to 1 out of 3 in Finland, France and Belgium are social enterprises.⁹ The joint EU-OECD work (EU and OECD,

⁸ [Social Enterprising Europe Programme Examples](#)

⁹ [The Social Business Initiative of the European Commission](#)

2016) identified skills and competencies as a key barrier for starting up and scaling the impact of social enterprises.

Sustainable entrepreneurship stands for a business-driven concept of sustainability which focuses on increasing both social and business value. Sustainable entrepreneurship is typically associated with the triple bottom-line comprising people, planet and profit. It contributes to solving the world's most challenging problems, such as climate change, financial crisis and political uncertainty, as well as ensuring business success.

Cultural entrepreneurship employs more than five million people across Europe, and more young people than any other business sector. In many EU countries, cultural enterprises typically employ young highly skilled people, for instance in France, two-thirds of cultural workers have an undergraduate degree. Non-salaried employment concerns 30% of the total employment. Cultural workers often also need to combine several jobs and social transfer payments to make ends meet.

Part of the challenge is that many higher education students in arts and cultural sectors receive little, if any, training in business or entrepreneurship or how to start a creative enterprise which is financially viable. Universities can open up their teaching offer to include people from the creative sector in successful businesses. They can also provide environments that support incubators, start-ups, and facilitate networks of creative businesses to create and sustain local ecosystems. Above all they must mainstream the skills and capabilities associated with entrepreneurship so that these are not restricted to certain sectors but are embedded across the teaching offer.

4.4 EU action

The European Commission acts as a catalyst and facilitator for the promotion of entrepreneurship in higher education. It focuses on the dissemination of information, the exchange of best practices among EU countries, and on the development of supporting tools and projects with that deliver a high added value at EU level.

The 2006 Communication "*Implementing the Community Lisbon Programme: Fostering entrepreneurial mindsets through education and learning*" (Commission, 2006) urged HEIs to integrate entrepreneurship as a mandatory part of the curriculum. Policy guidance and a framework for entrepreneurship education was drawn up and presented in 2012 in the "*Entrepreneurship 2020 Action Plan*" (Commission, 2013) and the Communication on "*Rethinking Education: Investing in skills for better socio-economic outcomes*" (Commission, 2012).

As part of the *Entrepreneurship 2020 Action Plan*, the European Commission, in collaboration with the OECD, developed a framework and an online self-assessment tool, HEInnovate, to address the need for guidance and greater clarity on what constitutes an "*entrepreneurial*" HEI. The European Commission also works to create a favourable environment for social enterprises so that they can operate on an equal footing with other types of enterprises, and has worked with the OECD to provide advice in the design and implementation of policies and programmes for social enterprises (EU and OECD, 2016) in line with the Commission's Social Business Initiative for boosting social entrepreneurship.

The EU is launching a pilot project to support the development of entrepreneurship education with a focus on cooperatives.¹⁰ It will encourage cooperatives to employ young people and promote start-ups. The aim is to strengthen youth employment and ensure the generational renewal of cooperatives.

¹⁰ [DG Growth - Cooperatives](#)

5.0 The current state of UBC in Europe

5.1 The focus of the UB Forum

People are at the heart of Europe's economic and social development. Education is instrumental in empowering people and helping them reach their full potential. Higher education in particular, with its links to research and innovation, plays a crucial role in individual and societal progress and in providing the highly skilled human capital and articulate, dynamic citizens that Europe needs to create jobs and ensure economic growth and prosperity.

The contribution of higher education to innovation, jobs and growth can be enhanced through close, effective links between education and business. The recent shift towards greater, sustained collaboration has resulted in an increased flow of knowledge as well as new types of co-operation between education institutions and the business sector.

The UB Forum was set-up to support and develop dialogue and exchange between higher education institutions, companies, students, NGOs and policymakers at a European level. It encourages the sharing of ideas, good practice and stimulates innovation through greater knowledge exchange and inspiration.

However, whereas the UB Forum facilitates sharing of good practice and mutual learning in a centralised manner, it is important to further nurture our understanding of the situation of UBC in the EU Member States.

5.2 Developing the knowledge base of UBC

In December 2015 the European Commission financed a study to get a more profound, comprehensive and up-to-date understanding of the state of UBC in Europe. This study will address the perspective of both the HEIs and the business sector – establish the state of play of UBC in the different countries, identify the main drivers and barriers for the different stakeholders and at what levels they occur; understanding the regulatory framework conditions and what kind of measures/initiatives exist on a national level to support the development of UBC.

Besides the analysis of existing literature, regulatory framework conditions and relevant national/ regional initiatives, the study also involves the implementation of two substantial surveys targeted at HEIs and businesses as well as the analysis of a number of case studies.

The first workshop (4.1) at the UB Forum will present and discuss some of the major findings and conclusions of the work undertaken so far.

In the second workshop (4.2), representatives from some of the cases studies will present how they went about their cooperation with the "other" side, how they overcame potential problems and challenges, the benefits of their cooperation and their future plans, while also sharing the lessons they have learnt with the audience.

The exchanges and discussions will feed into the final version of the study report.

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