

## **PROMOTING AND SUPPORTING GRADUATE ENTREPRENEURSHIP IN HIGHER EDUCATION**

**A synthesis of results from OECD case studies in eastern Germany**

## **EXECUTIVE SUMMARY**

This report provides the main findings and recommendations from a series of case study reviews of entrepreneurship education and business start-up support in higher education institutions (HEIs) in eastern Germany. This review examines strategies, structures and practices for entrepreneurship promotion and support in HEIs. These case studies are part of a series of reviews on Skills and Competences for Entrepreneurship carried out by the Local Economic and Employment Development (LEED) Division of the Organisation for Economic Co-operation and Development (OECD).

The strengths of HEI support in eastern Germany include a broad support for entrepreneurship at the university leadership level; the use of a variety of intra- and extra-curricular approaches to engage students in entrepreneurship education and events; an increasing use of international good practice teaching methods that develop an entrepreneurial mind-set and provide students entrepreneurship experiences; and, the existence of strong linkages between HEIs and external entrepreneurship support organisations and networks. However, there are also a number of challenges in further developing entrepreneurship support in HEIs in eastern Germany. These challenges include an uneven adoption of good-practice teaching methods across entrepreneurship education programmes; a low level of visibility for role models and successful student entrepreneurs on campus; little involvement of alumni in entrepreneurship education and business start-up support services (i.e. as coaches and mentors); and, a heavy reliance on public funding from Federal and state governments and the European Union for entrepreneurship activities.

To this end, the report recommends showcasing and celebrating entrepreneurship and success stories on campuses to increase interest in entrepreneurship among students; improving the quality of entrepreneurship teaching; and, developing two-levels of entrepreneurship support to ensure that entrepreneurship teaching is available to a wide base of students and making more intensive support available to support those with the potential for growth.

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## **IMPORTANCE AND NATURE OF UNIVERSITY SUPPORT FOR ENTREPRENEURSHIP**

Many different inputs are required for successful entrepreneurship, one of the most important being entrepreneurship skills. Motivated people need the right skills to identify entrepreneurial opportunities and to turn their entrepreneurial projects into successful ventures. Successful entrepreneurs typically follow a life-long learning journey that starts in education and continues with learning-by-doing processes that include both formal and informal learning that occur inside and outside the firm.

Higher education institutions (HEIs) play an important role in this learning process because they offer unique environments for nascent entrepreneurship. The emphasis of entrepreneurship support in HEIs to date has principally been on entrepreneurship education. Entrepreneurship education is important because it presents entrepreneurship to students as a possible career choice and acts as a general advocate for the development of the mind-set and creativity needed in entrepreneurial endeavours. Entrepreneurship education is beneficial for students regardless of whether they start businesses or forge a career as a paid employee. This so-called “intrapreneurship” is valued by employers because skills related to risk management, innovation and change-management are beneficial to all organisations, large and small. Developing entrepreneurial mind-sets and skills can help students go on to be successful leaders in organisations.

In addition to teaching about entrepreneurship, tailored practices have emerged in HEIs to support business creation and business development. Key pillars of this support include the provision of coaching and mentoring, as well as the facilitation of access to financing, premises, networks and research results. The provision of these support services requires co-operation with the local business community and the HEI’s alumni, who can complement entrepreneurship teaching by interacting with students on projects and by acting as coaches and mentors for students. Banks, business angels and other investors are also important partners for HEIs in supporting new businesses to ensure that spin-offs and student start-ups can access the funds needed to their projects.

Support for entrepreneurship is important for HEIs because they are increasingly expected by governments to fulfil a “third” mission which anticipates impacts on society such as contributing to employment creation and economic growth. The third mission is well-established in the United States and is increasingly accepted by European universities. Achieving this requires strengthening the linkages between universities and the rest of society and the business sector in particular by opening up universities and by increasing the tendency of the business sector to use universities’ research infrastructure for their R&D objectives. Adopting the characteristics of the entrepreneurial university and supporting entrepreneurship can help HEIs fulfil their “third” mission.

## **OECD PROJECT CASE STUDY IN EASTERN GERMANY**

This project is a case study review of entrepreneurship education and business start-up support in 6 HEIs in eastern Germany as part of a series of reviews on Skills and Competences for Entrepreneurship carried out by the Local Economic and Employment Development (LEED) Division

of the Organisation for Economic Co-operation and Development (OECD). This review seeks to contribute to the continuing development of entrepreneurship education and start-up support in HEIs in eastern Germany.

The Federal Ministry of Interior asked the OECD to examine potential levers for economic development in eastern Germany, focussing on endogenous development and entrepreneurship in particular. The OECD's work programme on supporting graduate entrepreneurship over the last 7 years has highlighted the potential to promote entrepreneurship through graduates through business creation and the development of mind-sets, which contributes to economic and employment growth.

There are two objectives of this review. The first is to assess current practices in support for entrepreneurship in participating HEIs against good practice characteristics of entrepreneurial universities. This includes reviewing the content and methods of entrepreneurship teaching and training; the specialised business start-up support services offered by the university; the linkages with external business development services and financial institutions; and, the governance of entrepreneurship support.

The second objective is to develop a set of recommendations at two levels. One set of recommendations covers actions that HEIs can take to improve their entrepreneurship teaching and start-up support offerings. A second set of recommendations addresses policy measures and actions that can be taken by governments and development agencies at national and regional levels. Recommendations are provided in each of the individual case study reports; this report presents some of the key overarching messages for policy makers.

An OECD-led team of international entrepreneurship experts visited 6 HEIs in 2011 and 2012 to conduct in-depth interviews with university rectors, professors, staff involved in start-up support activities, students and other stakeholders in the local entrepreneurship support system to learn about entrepreneurship education activities, specialised business start-up supports services offered, HEI strategies and plans. The 6 HEIs covered in the study visits were:

- University of Brandenburg
- Technical University Ilmenau
- University of Applied Sciences Schmalkalden
- University of Leipzig
- Burg Giebichenstein University of Art and Design Halle
- Martin-Luther-University Halle-Wittenberg

The findings of the case study visits were presented and discussed in a series of workshops with the participating HEIs. Case study reports were produced for the HEIs and are available in English and German at: [www.oecd.org/site/cfecpr/](http://www.oecd.org/site/cfecpr/).

The information obtained in the case study visits was complemented by an online survey of university leaders. Rectors in 57 HEIs were invited to participate in the survey between August 2012 and November 2012 and responses for 41 HEIs were received. The survey included questions on entrepreneurship education offerings, specialised business start-up support services, strategies, resources and plans regarding entrepreneurship support.

This project was conducted in collaboration with the Federal Ministry of the Interior. Other key partners at the Land level included: the Ministry of Economy of Thuringia; the Ministry of Education and Research of Thuringia; the Ministry of Labour, Social Affairs, Women and Family of Brandenburg; the Ministry of Economy and European Affairs of Brandenburg; the Ministry of

Science, Research and Culture of Brandenburg; the Ministry of Science and Economy of Saxony-Anhalt; the Ministry for Economic Affairs, Labour and Transport; and the Ministry of Economy, Construction and Tourism Mecklenburg-Vorpommern.

## THE GUIDING FRAMEWORK FOR THE STUDY

This project follows the “Guiding Framework for the Entrepreneurial University”, which was developed as a collaborative project between the OECD LEED Programme and the European Commission, Directorate-General for Education and Culture. The Guiding Framework outlines the issues, characteristics and good practices that are central for entrepreneurship support in HEIs. The framework includes a set of 41 indicators under 7 themes (see Figure 1). This framework underpins the OECD assessment and HEI leaders’ survey. For more information on the Guiding Framework, please visit <http://www.oecd.org/site/cfecpr/EC-OECD%20Entrepreneurial%20Universities%20Framework.pdf>.

Figure 1. The entrepreneurial university



## HEI LEADERS SURVEY RESULTS

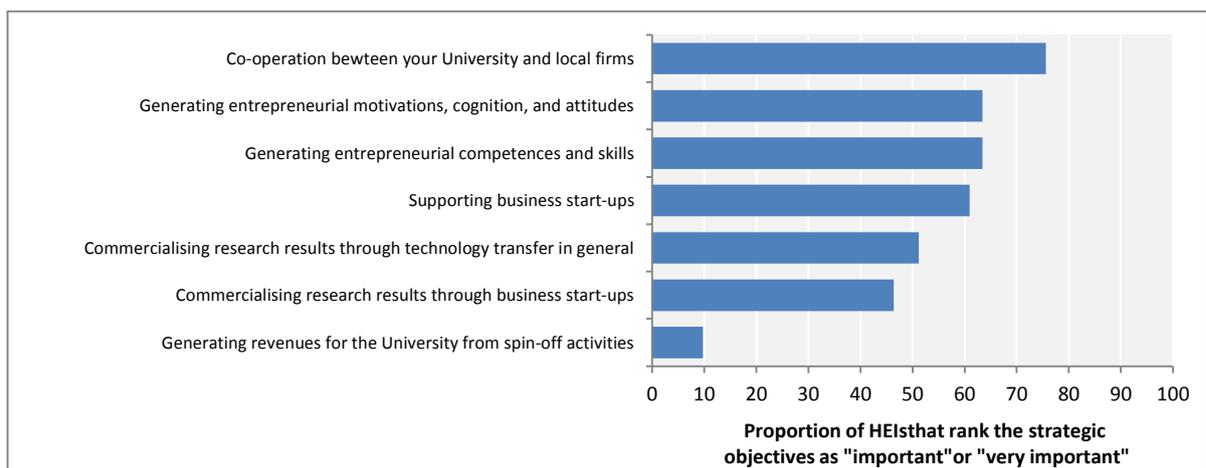
### Objectives of university support for entrepreneurship

An entrepreneurial university has a clear vision and strategy that sets out clear objectives for supporting and teaching about entrepreneurship. This typically includes defining what entrepreneurship means to the institution and outlining how and why it is supported. The strategy can also be used to define the target client groups for entrepreneurship support (e.g. students, staff) and to identify how the university can meet the needs of the target clients.

Figure 2 illustrates the proportion of HEIs that rate the strategic objectives related to entrepreneurship support as important to their mission. Building co-operative relationships with local firms is viewed as strategically important by the majority of HEIs. Strong linkages between HEIs and the local economy provide students with better access to “real world” learning opportunities, both on- and off-campus. These linkages are also important for graduate entrepreneurs because they facilitate network building, which helps identify potential business partners, suppliers and customers. Another positive result is that many HEIs view generating entrepreneurial motivations and attitudes, and competences and skills among their students and supporting business start-ups as important.

However, there is room for HEIs to be more entrepreneurial themselves. Few HEIs aim to generate revenues from spin-off activities. While few universities are able to raise significant amounts of revenue from spin-off activities, this represents a missed opportunity to provide students with the learning experience of taking ideas to market.

**Figure 2. Ranking of HEIs' strategic objectives**



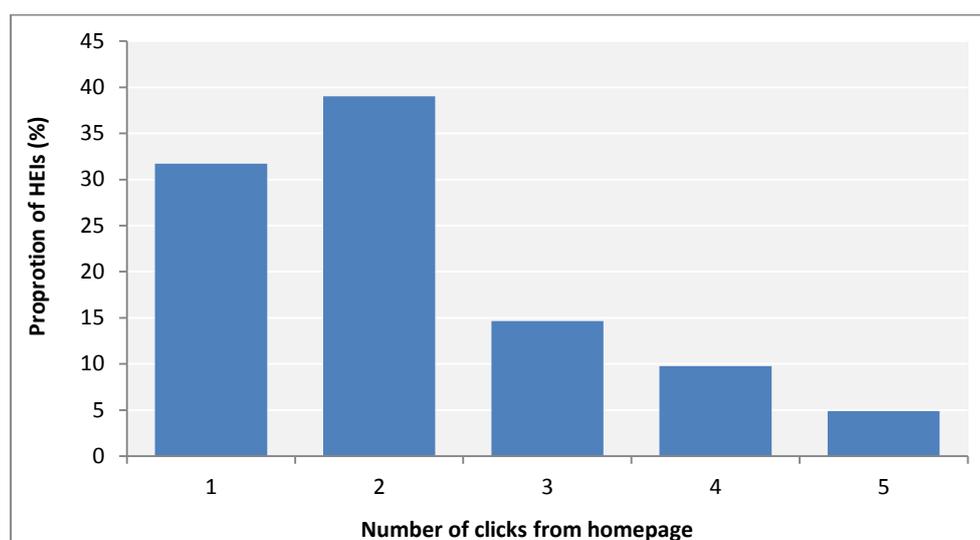
n = 41

Source: OECD, HEI Leaders Survey in eastern Germany.

## Communication of entrepreneurship priorities and activities

One of the most important communication tools for HEIs is their website, which provides information both internally and externally. Figure 3 illustrates how easily entrepreneurship material can be accessed from the university homepage in eastern Germany. One-third of the HEIs have entrepreneurship information located within “one click” from the university homepage, ensuring that information on entrepreneurship and entrepreneurship activities are visible for both students and visitors from outside of the university. Entrepreneurship information can be reached within “three clicks” from the university homepage in 85% of HEIs in eastern Germany.

**Figure 3. Number of clicks: visibility of entrepreneurship support**



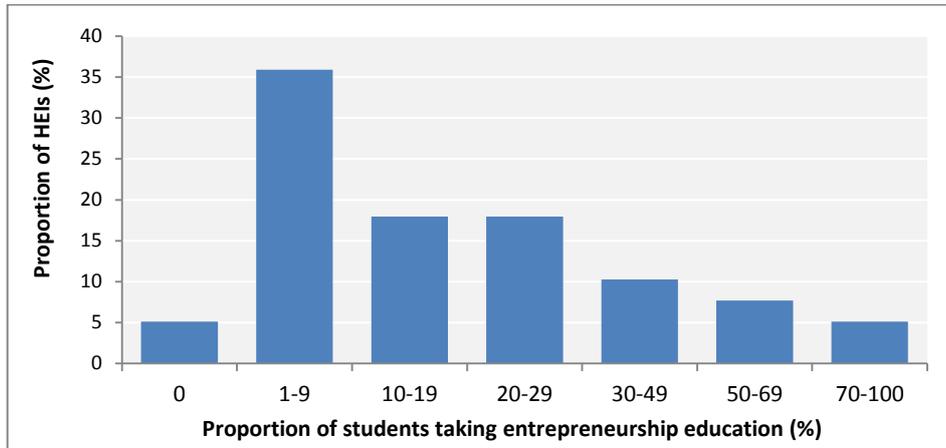
n = 41

Source: OECD HEI Leaders Survey in eastern Germany

## Entrepreneurship teaching

All but one of the HEIs surveyed offered entrepreneurship teaching. However few HEIs reach a large proportion of the student population with their entrepreneurship education offerings. On average, entrepreneurship education activities reach approximately 20% of the student population (Figure 4). There is room to increase the number of students receiving entrepreneurship education, at least at the basic level. Introductory entrepreneurship modules or courses have value to all students regardless of their intentions towards business start-up because they can acquire skills that will benefit them in any employment situation. For example, skills such as the ability to work in teams and creative thinking are valued by employers.

**Figure 4. Proportion of students taking entrepreneurship education activities**

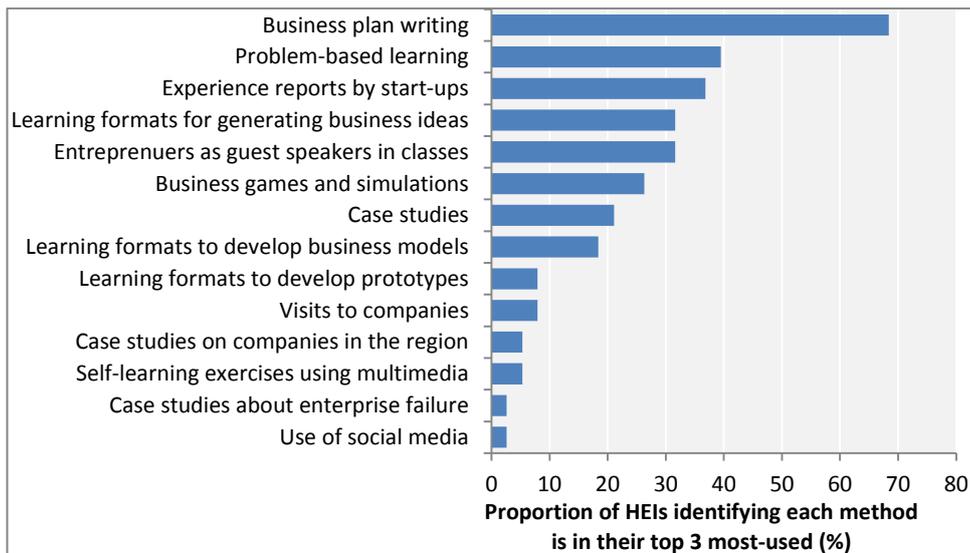


n = 39

Source: OECD, HEI Leaders Survey in eastern Germany.

The teaching methods most frequently used by HEIs in entrepreneurship teaching are business plan writing, problem-based learning and experience reports by start-ups (Figure 5). It is clear that the majority of HEIs use business plan writing as their main teaching method. While this can be an important tool to lead students through the process of thinking about and planning for business start-up, it can result in students filling in templates without understanding and appreciating the thought processes and actions required to start a business. International best practice teaching methods increasingly provide students with business start-up experiences, either through business simulations and competitions, or actual business start-up. There is room in eastern Germany to increase the use of these methods, especially business games and simulations and case studies about business failure.

**Figure 5. Most common teaching methods used in entrepreneurship education**



n = 39

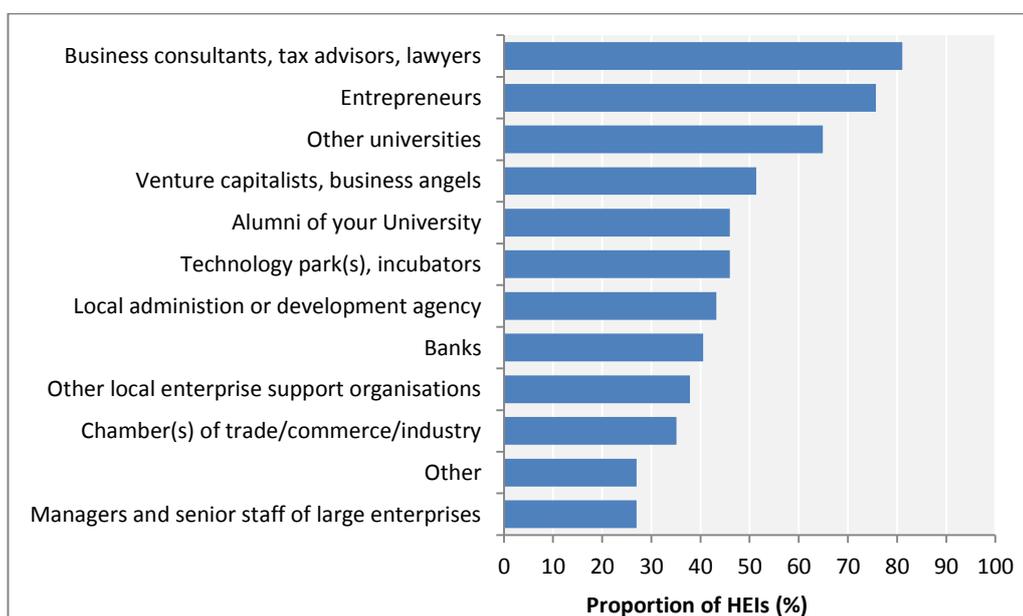
Source: OECD, HEI Leaders Survey in eastern Germany.

HEIs deliver entrepreneurship teaching with a number of partners, including business professionals, entrepreneurs and other HEIs (Figure 6). There are however, a number of important key partners in local entrepreneurship ecosystems that could be used more frequently in entrepreneurship. Alumni are commonly used in entrepreneurship teaching and support in many EU countries but fewer than half of the HEIs in eastern Germany incorporate alumni into entrepreneurship teaching. This represents a missed opportunity because alumni can bring “real life” entrepreneurship experience into the classroom by acting as guest lectures and working on projects with students. Interactions between alumni and students are also valuable because they can be the start of a business network for students that they can tap into for business advice and encouragement, as well as for finding customers and partners.

Another advantage of working with alumni to deliver entrepreneurship teaching is that they can be easily accessed by the university since there is already a linkage. Many are often very enthusiastic about “giving back” and very happy to donate their time to work with students.

The financial sector is another partner that could be more involved in entrepreneurship teaching in eastern Germany. Venture capitalists, business angels and banks are involved in entrepreneurship teaching in fewer than half of the HEIs. Interacting with stakeholders from the financial sector in the learning process can be greatly beneficial for students because they will learn about the needs of financiers, improving their chances of successfully obtaining financing to start and grow their business. There are also benefits for the financial sector since working with students provides them with access to entrepreneurs that may become lifelong clients.

**Figure 6. Collaboration in delivering entrepreneurship teaching**



n = 37

Source: OECD, HEI Leaders Survey in eastern Germany.

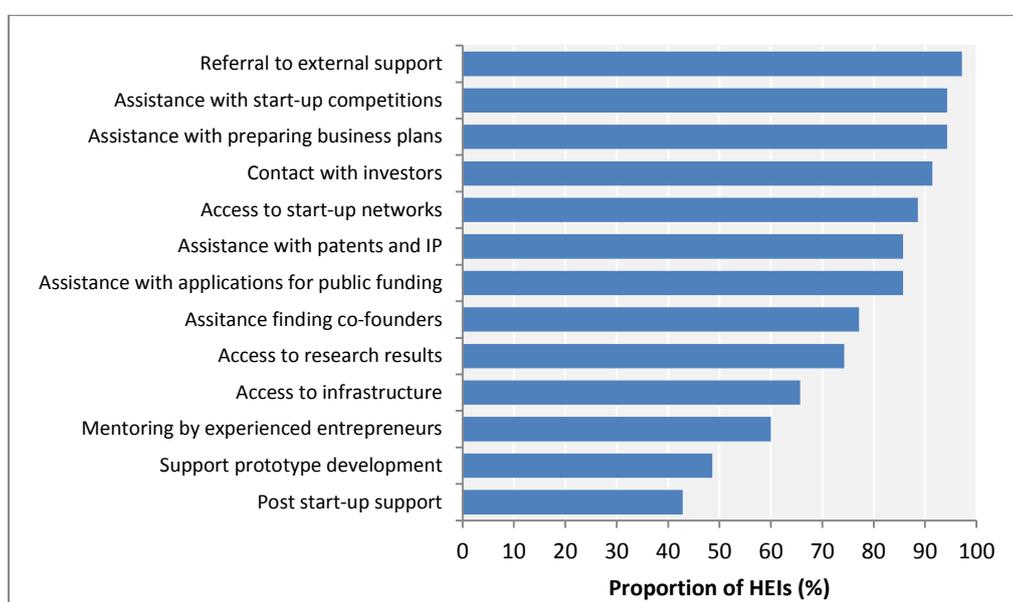
### Specialised business start-up support services

Business start-up support provides a helping hand in business start-up process without taking away the “do it on your own” element. Entrepreneurship support systems should be accessible and

attractive for future entrepreneurs, and aim to rectify market failures in gaining access to start-up financing and premises. Universities can create a protected environment for nascent entrepreneurship, which can be an important stimulus for students and researchers to make a first step towards the creation of a venture. Yet, in order to avoid “over protection”, early exposure to market conditions is advisable. A key success factor lies in private sector collaboration.

Figure 7 provides an overview of the start-up support offerings available in eastern Germany HEIs, which are often delivered through entrepreneurship centres or business incubators. HEIs in eastern Germany offer a comprehensive array of specialised business start-up support services. The most common support provided is referral to specialised external support organisations. The use of external specialist organisations signals a commitment to ensuring access to high-quality support. One area that could be improved is the availability of post start-up support to help graduate start-ups grow and develop their businesses, allowing them to hire employees and make greater contributions to the local and regional economy.

**Figure 7. Start-up support services offered by HEIs**

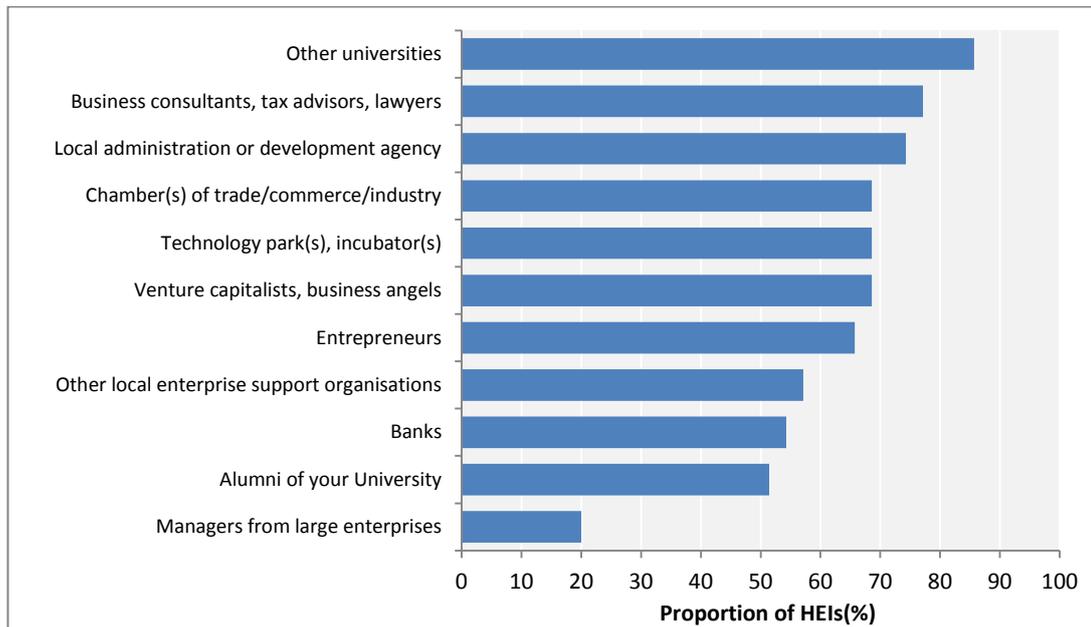


n = 35

Source: OECD, HEI Leaders Survey in eastern Germany.

HEIs typically deliver start-up support in collaboration with other partners (Figure 8). Nearly 90% of the HEIs in eastern Germany partner with other HEIs in the delivery of start-up support and a number of other key partners are involved, including business professionals (e.g. consultants, tax advisors) and local development agencies. Among the large number of partners involved two potential partners that could be used more frequently are entrepreneurs and alumni. Approximately two-third of HEIs use entrepreneurs in the delivery of start-up support and slightly more than half use alumni.

**Figure 8. Collaboration in delivering start-up support**



n = 35

Source: OECD, HEI Leaders Survey in eastern Germany.

### Conclusions from the HEI Leaders' Survey

HEIs in eastern Germany actively support and encourage entrepreneurship. Entrepreneurship is a visible strategic objective but there is room however, for HEIs to be more entrepreneurial themselves as few institutions view the commercialisation of research and starting university spin-offs as strategically important. Support for entrepreneurship at the university will be more credible on campus and within the local community if it is seen as acting in an entrepreneurial way itself.

Entrepreneurship education offerings in the HEIs are frequently concentrated on the development of business plans. There is a need to move away from this and to focus more on learning through experience, which can be achieved through business simulations and short-term start-up projects. One way to accomplish this is to increase the involvement of other stakeholders in the development and delivery of entrepreneurship education activities. While many HEIs incorporate entrepreneurs from the local economy into entrepreneurship education, there are a number of other potential partners that could be used more frequently such as external start-up support organisations and chambers of commerce. These partnerships could be leveraged to provide students with learning opportunities in the community through business simulation projects and business competitions. These would not only provide effective learning experiences, but also opportunities to start developing business networks and provide more visibility for HEIs in the community.

Business start-ups support services are a newer activity for the HEIs in Eastern Germany. Demand for these services from students is increasing and accordingly, many HEIs that do not offer currently start-up support services are planning to do so. Most HEIs collaborate with a number of external stakeholders in the delivery of business start-ups support services and these linkages with external support services will help HEIs keep up with the growing demand from student entrepreneurs.

A gap that exists in the current support system is that there are fewer business development services available to student-run businesses than there are for new start-ups. To maximise the potential of student-run businesses, business development support services are needed to ensure that these businesses are sustainable and have the opportunity to grow.

## **STRENGTHS IN UNIVERSITY SUPPORT FOR ENTREPRENEURSHIP**

The OECD international expert review teams conducted in-depth stakeholder interviews and workshops at 6 HEIs in 2011 and 2012: University of Brandenburg; Technical University Ilmenau; University of Applied Sciences Schmalkalden; University of Leipzig; Burg Giebichenstein University of Art and Design Halle; and Martin-Luther-University Halle-Wittenberg. These discussions revealed a number of strengths and areas for improvement that can help policy makers understand the current state of play for entrepreneurship support in HEIs in eastern Germany. The strengths identified include:

### **1. Entrepreneurship is widely supported by university leaders**

HEIs recognise the strategic importance of encouraging and supporting entrepreneurship and this is reflected in the widespread teaching of entrepreneurship and growing provision of specialised start-up support services. This support was found broadly at the HEI leadership level in the HEIs included in the case study, where entrepreneurship was supported within the local and institutional context. For example, Burg Giebichenstein University of Art and Design Halle aims to support and foster the growth of creative industries. Consequently, the entrepreneurship offerings are targeted at students in these fields and support is tailored to the particular needs of entrepreneurs and start-ups in these industries.

One of the positive practices identified during the case study visits was at the FH Brandenburg, where the Rector strongly supports entrepreneurship as a strategic priority for the institution. University leadership is well-informed about the on-campus activities that promote and support entrepreneurship and there is a clear understanding of the strengths and weaknesses of these offerings. In addition, the Rector recently established a chair in entrepreneurship, which demonstrates that entrepreneurship is becoming a mainstream activity for the university. Entrepreneurship support at the FH Brandenburg not only focuses on the foundation of new companies, but more importantly for the region, it also covers the issue of business succession. FH Brandenburg promotes graduate entrepreneurship actively through its participation in the Brandenburg Institute for Entrepreneurship and SME, the establishment of the GründungsZentrum and an entrepreneurship professorship, located in the faculty of Business and Management.

### **2. HEIs use a variety of approaches to engage students**

HEIs in eastern Germany engage students in entrepreneurship activities using several approaches, including active promotion of the benefits entrepreneurship, education and training inside and outside of the curricula, and hosting and participating in entrepreneurship events such as start-up weekends and Global Entrepreneurship Week. The use of a variety of approaches provides different access points for students to learn about entrepreneurship, become involved in entrepreneurship activities and

access start-up support to help launch their entrepreneurial ideas. Students are more likely to participate in these offerings when they can be accessed in different ways according to their individual needs and preferences.

One of the more innovative outreach approaches seen during the case study visit was at TU Ilmenau. The entrepreneurship centre, auftakt, is considered a main lever for the current re-vitalisation efforts in the university entrepreneurship support. It uses its website and uses an extensive an online communication strategy that involves social media such as Facebook, to reach students, stakeholders and the community.

### **3. Use of international good practice teaching methods is growing**

Entrepreneurship education is offered both inside and outside of the curricula, providing students with many opportunities to participate in learning about entrepreneurship. While entrepreneurship education in eastern Germany focuses on the development of business plans, many HEIs are increasingly incorporating international best practice teaching methods that provide students with entrepreneurship experiences through business simulations and competitions, or actual business start-ups.

One of the strongest examples of best practice learning methods is the SMILE initiative at the University of Leipzig (see Box 1). SMILE offers participants a learning environment that puts them in control. Students develop their own entrepreneurial projects and focus on self-development. This fosters entrepreneurial mind-sets and represents a strong step toward growing the entrepreneurial economy in the region.

#### **Box 1. SMILE, University of Leipzig**

SMILE (the Self Management Initiative LEipzig) is an initiative that provides comprehensive support for personal and professional development including self-employment and entrepreneurship. It offers participants a learning environment that puts them in a position to decide for themselves how and what they want to learn. The focus is on the personality and individual needs of each participant, with a focus on personal development and preparing them for lifelong learning.

The activities organised by SMILE use various learning principles, including:

- The basic orientation is more towards the idea of a piano teacher than of a preacher; SMILE helps the learners to develop their capacities into skills.
- Participants develop their own (learning) goals and SMILE supports them.
- SMILE builds the content from the problems identified by the participants.
- SMILE ensures that information flows freely between everybody involved in the activity; the flow of information is neither controlled nor monitored.
- Information can be used in many ways. Participants are encouraged to consider various possibilities and are given access to all forms of information. Access is not limited to a specific field or area.
- Activities are designed so that they require interaction and objective argument.
- SMILE does not show how a problem can be solved, nor does it say whether an answer is right or wrong.
- SMILE does not test the participants in the traditional sense.
- Autonomy, ethical thinking and behaviour are supported.
- SMILE fans the flames of the desire to learn and think that want to keep burning in the participants.

SMILE offers different activities, seminars and workshops in three modules Participants can chose when to attend which module and most of the activities and workshops require no prior knowledge so they can be joined

at any time.

- The first module helps participants discover their entrepreneurial potential and capabilities.
- Participants expand and develop their potential and capabilities.
- In the third module, participants apply their potential and capabilities to projects.

SMILE results:

- 200 start-up companies in 5 years, averaging 40 per year
- EUR 450 000 costs per year, currently 25% own funds, 75% subsidies
- 4000 participants in 5 years, 800 per year
- 6 staff members

#### **4. HEIs are well-connected with external entrepreneurship support organisations and networks**

HEIs in eastern Germany are well-connected with other stakeholders in the local entrepreneurship ecosystem and a number of external entrepreneurship support organisations have a key role in supporting and complementing the learning that occurs within the curricula at the HEIs. Many of these projects are built around the most significant trend in entrepreneurship education, which is the move away from traditional, linear business planning to more iterative, student-centric learning. These learning tools provide multiple opportunities to connect learners with the entrepreneurial ecosystem.

Blurring the line between the campus and community is important for students for a number of reasons. First, it enhances the learning process because students get start-up experience outside of the classroom so that they can learn-by-doing. Second, these events help raise awareness about entrepreneurship within university and across the community. Third, these events help students build their business networks. These networks will be important to ensure success for those who pursue as an entrepreneur because they will need networks to find new projects and markets, as well as partners and teams for larger projects. A good example of this approach is Univations at Martin Luther University Halle-Wittenberg (see Box 2), which provides comprehensive education and start-up support activities, including facilitating access to local and regional networks and sources of start-up financing. Another approach good example of linking students and the external environment is Designhaus Halle at the Burg Giebichenstein University of Art and Design which provides specialised seminars, mentors and networks for students in creative fields (see Box 3).

##### **Box 2. Univations Gründerservice, Martin Luther University Halle-Wittenberg**

Martin Luther University Halle-Wittenberg and the Univations Institut für Wissens- und Technologietransfer implement their strategy of providing holistic support for innovation and entrepreneurship at the university in the form of the Univations Gründerservice. The strategy received an award in the national EXIST IV "Gründungskultur – Die Gründerhochschule" (entrepreneurial culture - the entrepreneurial university) competition. The Univations Gründerservice sensitises students and researchers for entrepreneurial thinking and behaviour, develops practice-oriented frameworks for entrepreneurship learning and helps discover, develop and exploit innovation potential throughout the university. Start-ups are given intensive assistance to realise their goals and are actively supported in the search for start-up and growth finance. Potential entrepreneurs gain access to a national network of experts, mentors, investors and value adding partners. The University's senior management actively supports the activities; for example, all start-up related activities over the year are brought together as part of the University's theme year on start-ups and entrepreneurship, raising awareness and increasing acceptance amongst students and academics. The University also intends to incorporate business start-ups and entrepreneurship as central elements in its mission statement.

The content provided by Univations Gründerservice is shaped by its mission to provide holistic and lifelong support to entrepreneurs, taking the specific stages in the personal life of the entrepreneur into account along with the development cycles of the enterprise. Integrating practitioners and companies into modules ensures that the programme is completely practice- and application-oriented. Subject- and industry-specific content is combined with interdisciplinary approaches. Academic start-ups' shortage of finance or lack of equity, particularly in this region, motivated an element in the practical support placing a focus on developing start-up and growth capital, particularly in the form of private and institutional venture capital.

Strategic areas of action:

- Raising awareness and communicating the importance of entrepreneurial spirit (in schools and universities).
- Practice-oriented teaching of entrepreneurial competences. Also interdisciplinary research on validating cause-and-effect relations in entrepreneurs' own approaches.
- Professional collection and differentiated evaluation of research results.
- Providing start-ups with practical support that is comprehensive, market-oriented and reflects their situation.

At the heart of the model is the concept of life-long learning, entailing different orientations towards different needs in different life phases (school, university and work) by means of early sensitisation, subject- and industry-specific support for start-ups, finance procurement and professional skills development. Despite Martin Luther University Halle-Wittenberg being known beyond the region as an entrepreneurial university promoting academic start-ups in Saxony-Anhalt, the concept has not yet fully permeated all the faculties, institutes and levels of administration at the University.

### **Box 3. Designhaus Halle, Burg Giebichenstein University of Art and Design**

Designhaus Halle is the start-up centre at the Burg Giebichenstein University of Art and Design. It is a support centre for university spin-offs and other start-ups in different design-related industries, applied arts and other fields within the creative industries. It offers office space at affordable prices as well as training, seminars and other support services for new start-ups. Designhaus Halle brings together design and business, art and market, teaching and professional life. It helps students as they transfer from Burg Giebichenstein University to professional life.

The Designhaus Halle has a career service that provides advice for students and graduates to support start-ups or help them during their first career steps, whether as a freelancer or as an employee. It also offers professional key qualifications in workshops, seminars and lectures. Furthermore, it provides part-time, fee-based training for creative and idea industries, for SMEs in manufacturing industries and for the service sector in the framework of the national educational strategy on lifelong learning.

German and international experts act as mentors in an industry-specific programme which supports young designers as they position themselves in their market segment. Furthermore, Designhaus Halle helps graduates and students to find projects, obtain commissions and find jobs or internships.

As a forum for events and communication, Designhaus Halle aims to raise public awareness of design-relevant topics and their needs. It stages lectures, exhibitions and company presentations, organises networking meetings and contact fairs, and hosts BurgAlmuni network events.

Designhaus Halle is part of Burg Giebichenstein University of Arts and Design and is managed by the University's Transferzentrum. The transfer centre helps graduates looking for jobs and also provides academic skills development for managers of SMEs in Saxony-Anhalt. Funding is provided by European Social Fund and the state of Saxony-Anhalt and is safeguarded until the end of 2013 as part of the operational programme.

This model promotes and supports entry into and start-ups already in the creative industries, especially the design industry. It aims to strengthen the creative industries in Saxony-Anhalt through logistic support, career counselling, entrepreneurship education, training and networking. Through the provision of start-up support, Burg Giebichenstein aims to be a career partner for its graduates even after graduation. In return, the graduates' skills and expertise can be kept accessible to the university.

## **CHALLENGES IN UNIVERSITY SUPPORT FOR ENTREPRENEURSHIP**

While there are many examples of good practices in the promotion and support of entrepreneurship in HEIs in eastern Germany, a number of challenges were identified during the case study visits. The common challenges that many of the HEIs visited face include the following:

### **1. Best practice teaching methods have yet to be widely adopted**

Entrepreneurship teaching methods used in HEIs in eastern Germany range from traditional classroom learning to very cutting-edge approaches. But often too much focus is placed on business plans and students are often not enough exposed to problem-based learning methods. Even though a business plan can offer good and relevant considerations from entrepreneurs, the focus on business plans and their use in business plan competitions should be downscaled. The development of business plans in teaching often revert to academic exercises that take the focus away from what the entrepreneur really needs and instead giving attention to what he or she thinks the stakeholders might like to hear.

While there are a number of exciting entrepreneurship education initiatives on-going, there is a need for wider adoption of these methods. Entrepreneurship teaching in most HEIs gives too little attention to the development of entrepreneurial mind-sets. There is therefore a need to increase the use of cross-disciplinary projects, business simulations, short-term start-up projects and team-building activities to provide students with hands-on learning.

### **2. Role models and successful student entrepreneurs have low visibility**

Although many HEIs are effectively using short-term entrepreneurship projects and events to engage and inspire students, more can be done to celebrate successful student entrepreneurs and to promote local entrepreneurs as role models. The goal is to increase students' interest in entrepreneurship and to encourage more students to become involved in learning about entrepreneurship and if interested, gain experience related to business start-up.

Making successful entrepreneurs and role models visible can be an effective way to stimulate interest in entrepreneurship. It is important that students are able to identify with the success stories and role models. Many different approaches can be taken, including promoting success stories in university media (e.g. radio, websites, and radio) or showcasing role models at events and incorporating them into teaching, coaching and mentoring. Another approach is to use short-term events such as "Career Days" and "Start-up Days". These events bring students and entrepreneurs together to teach students about entrepreneurship and to provide students with a taste of what entrepreneurship is about so that they are inspired to become entrepreneurs at some point in their life.

### **3. Alumni are not used widely entrepreneurship education and business start-up support**

The use of university alumni in entrepreneurship teaching, coaching and mentoring is not being exploited to its full potential. While some HEIs have systems to provide information to alumni, such as Burg Giebichenstein, few collect information on alumni. This represents a missed opportunity because alumni are a low-cost resource that can be leveraged in entrepreneurship teaching and mentoring student entrepreneurs.

Alumni could play a more significant role in university entrepreneurship programmes by becoming involved in teaching as guest teachers or by acting as coaches and mentors to student entrepreneurs. Access to mentors with real-life experience in ventures and companies is needed on a regular basis for impartial and moral support of individuals and teams involved in start-ups. The use of professors and formal initiatives can be very helpful and rewarding, however the professors often have limited experience of running real-life businesses and the existence of the educator/student-relationship can provide complications regarding academic standards wanted by the university (the professor) and the start-up ambitions sought by the student(s).

### **4. Relatively low levels of commercialisation and spin-off activities**

Commercialising university research results offers students the opportunity to participate in the process of generating ideas and taking them to market and represents a potential source of revenue for universities. While the HEIs in eastern Germany are increasing their support of commercialisation of research, few research projects are being taken to market. This is a challenge for many universities around the European Union.

Efforts to commercialise research are on-going but HEIs can do more. Idea scouting events and research seminars could be used more frequently to motivate more students and professors to engage in the commercialisation of research results and reward schemes could be developed to provide incentives.

### **5. Reliance on public funding from Federal and state governments and the European Union**

While all of the HEIs visited are expanding their existing entrepreneurship support offerings, these new initiatives continue to be funded almost exclusively by project funding from various governments. Although all HEIs recognised this challenge, none had extensive plans for sustainable financing in the event that public financing was reduced. Sustainable funding strategies need to be considered in developing additional entrepreneurship support activities otherwise they risk being short-term activities that end when funding stops.

## **DIRECTIONS MOVING FORWARD**

Considering the results from the HEI Leaders' Survey and the case study visits, three areas of action have been identified for the HEIs and policy makers:

## **1. Showcase and celebrate entrepreneurship success on campus**

One way of creating awareness and interest entrepreneurship is to showcase success stories from within the region. A number of approaches to showcasing and celebrating success have demonstrated success. One example is events such as “Start-up Days” where local and graduate entrepreneurs tell their story to inspire interest in enterprising behaviour. Such events could be arranged in a co-operation between the local authorities and organisations, the university, and graduates/alumni. It is important that the venue is on campus because familiarity with the venue and the presence of faculty will support the credibility and integrity of the event. The visibility of such initiatives for the students (and faculty) is important when establishing an entrepreneurial culture on campus and in the local area.

Another approach to promoting entrepreneurship on campus is to invite local entrepreneurs and alumni to participate in entrepreneurship learning activities on campus, including delivering guest lectures in courses and working with students on start-up projects. It is important that they are visible and accessible to students so that they can identify with them as role models. This presents an excellent way for students to gain insights into idea generation and venture creation and development.

At the same time, it is important to celebrate successful student start-ups. These ventures are often easier for other students to identify with because these entrepreneurs are their peers. Universities often have several channels that can be exploited to promote these success stories such as campus radio, television and newspapers. Successful student entrepreneurs could also be featured at entrepreneurship events and even within entrepreneurship education.

## **2. Improve the quality of entrepreneurship teaching**

The focus on business plans and their use in business plan competitions should be downscaled. Even though a business plan can offer good and relevant considerations from entrepreneurs, the development of business plans often turns such plans into academic exercises taking the focus away from what the entrepreneur really needs. Focus should rather be on the mind-sets, skills and qualities that make entrepreneurs successful, such as opportunity recognition, networking, communication and team-building.

Key to improving entrepreneurship education is an improvement in the quality of teaching. More entrepreneurship training needs to be available and used by entrepreneurship teachers and professors to keep them updated on current pedagogies.

In addition, increasing the use of “live” learning models that focus on problem solving and team-building would greatly improve the learning experience of students because it offers them an opportunity to learn by doing. Initiatives like this can be introduced and adapted to the needs of students and community. Involving the community will have two benefits. First, it will strengthen the linkages between the university and local businesses. Second, it will help raise awareness of the entrepreneurship education and start-up support activities on- and off-campus.

To further increase students’ exposure to the “reality” of operating a business, alumni should be further incorporated into entrepreneurship education. This is a low-cost (or no cost) resource that is underutilised in many HEIs. Existing alumni initiatives should be expanded include entrepreneurship support as an objective to engage (local) businesses and industry to help future start-ups coming from the university. The will and urge to “give back” to the university (and society) from experienced business people is a way to create relations and secure knowledge sharing that is not biased by any organisation’s or governmental point of view. Alumni could act as guest teachers from time to time,

present their cases and know-how at events and more importantly act as non-partial mentors and providers of one of the crucial aspects within entrepreneurship support, namely the “know-who”-facet. Often the most valuable support and advice an entrepreneur can receive is the knowledge of whom to go to in order to gain further resources to develop the business.

### **3. Support the development of two-levels of entrepreneurship support**

Policy makers need to support both a broad entrepreneurship system that provides entrepreneurship teaching and experiences for a large number of students. At the same time, HEIs need to provide a more intensive teaching and services for high-potential graduate entrepreneurs. This could be delivered as a two-level support system.

The first level of support should provide basic teaching in entrepreneurship for a large body of students. It should include regular awareness raising actions on entrepreneurship, develop training programmes for entrepreneurship teachers, create more inter-disciplinary teaching, establish a better balance between theoretical and practical inputs, include professionals and entrepreneurs in developing and delivering courses, and identify and promote students with concrete business ideas.

Secondly, there should be support that offers deeper and more intensive growth support for those students with more advanced ideas and capabilities. An emphasis is needed on providing services that help students to overcome the barriers they face to business creation: finance to start a business, sources of business ideas, access to technology, access to co-founders, access to office space, links to investors, access to business networks and access to public support. It is also important to establish systematic links between incubation facilities and HEIs, strengthen collaborations between HEIs and local support providers more general, and introduce tailored post start up support such as through the introduction of a programme for high-potential student businesses focused on those business plans that have the ability to generate “born-global” firms.