

**UNLOCKING
ENTREPRENEURIAL
CAPABILITIES TO MEET THE
GLOBAL CHALLENGES OF THE
21ST CENTURY**

**FINAL REPORT ON THE
ENTREPRENEURSHIP
EDUCATION WORKSTREAM**

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Global Education Initiative
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I. Foreword

In 2007, the midway point of a 15-year global effort to achieve the Education for All and Millennium Development Goals for Education, the World Economic Forum Global Education Initiative (GEI) Steering Board recognized the need for new and innovative models in education with entrepreneurship and entrepreneurial skills as a catalyst for change. In the following months, the GEI Steering Board supported the launch of a global project to build the evidence base, raise awareness and bring together stakeholders from the public and private sectors to focus on quality and relevant education that would lead to innovation and economic growth – what became known as “entrepreneurship education”.

Since the 2009 launch of the World Economic Forum GEI report on *Educating the Next Wave of Entrepreneurs*, the quality and relevance of the education system has become increasingly important. At the same time, the recent economic crisis has put pressure on resources at a time when unemployment, already high among youth, is growing. Governments are seeking to create more jobs and economic growth. New technologies and social media are providing new mechanisms for creativity and innovation, but are also creating an increasing need for new knowledge and approaches. Education systems must be transformed to better prepare young people for this new environment and address the growing skills gap. Twenty-first century skills are critical to driving economic growth and competitiveness. These skills need to be developed at all levels of education, beginning at the primary level, and need to be integrated across the curriculum, not only in business-related fields. A cultural change is needed and the education system must begin moving the needle in this direction. The education system must become more adaptive to the continually evolving needs of society.

The recommendations from the 2009 report were taken to the regional level through brainstorming sessions at World Economic Forum meetings in Africa, the Middle East and North Africa (MENA), and Latin America. In addition, the report was presented at a series of international roundtable events focused on entrepreneurship education. Over the past year, the initiative has engaged more deeply at the regional level by holding a series of high-level roundtables in Europe (2010), MENA (2010) and Latin America (2011), bringing together leaders from government, academia, business and civil society to develop a set of entrepreneurship education action items, or manifestos, for each region.

The purpose of this global report is to tie together the work conducted over the past several years, in particular the common themes arising from the three roundtables, and to highlight the key points and recommendations for policy-makers. The report also summarizes the follow-on initiatives from the three roundtables, identifying links between the three and opportunities to connect them on a global basis. Finally, the report outlines some potential directions for the initiative – independent, but potentially linked under the umbrella and neutral platform of the Forum.

The World Economic Forum would like to thank the Steering Board Partners of the Global Education Initiative for their steadfast support over the past several years and, in particular, Abraaj Capital, Cisco, Deloitte, EMC Corporation, Hewlett-Packard, Intel, Lenovo, ManpowerGroup, McGraw-Hill and Microsoft for their specific support of the GEI Entrepreneurship Education workstream. In addition, we would like to thank all who have been involved throughout the process, including the authors of the 2009 report, the contributors to the regional roundtables and the members of the regional action groups. In particular, we would like to thank Karen Wilson for her role throughout the initiative, as the lead author on the 2009 report, the facilitator of the regional roundtables and the main author of the regional reports and manifestos.



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II. Executive Summary

Entrepreneurship has never been more important than it is today. Now, more than ever, entrepreneurs are essential to create jobs and economic wealth as well as to address the growing set of global challenges society is facing. Recent studies from the Kauffman Foundation¹ have demonstrated that entrepreneurs have been major drivers of economic growth and job creation in the United States. Countries around the world have increasingly focused on entrepreneurship and innovation as the way forward for building new knowledge and creative approaches, increasing global competitiveness, addressing the growing challenge of increasing unemployment, and creating new jobs.

Entrepreneurship is about growth, creativity and innovation. Innovative entrepreneurs come in all shapes and forms and their impact is not limited to start-ups – they also innovate in the public, private, academic and non-profit sectors. Entrepreneurship refers to an individual's ability to turn ideas into action and is therefore a key competence for all, helping young people to be more creative and self-confident in whatever they undertake (EC, 2008). As H.M. Queen Rania Al Abdullah of the Hashemite Kingdom of Jordan stated at the GEI private meeting in Davos in 2007, society faces a strong need to encourage people to practice believing the unbelievable, using imagination and courage, and tapping into the inner entrepreneur.

The issue of developing entrepreneurial skills and mindsets must be tackled throughout the entire education system as well as outside formal education. Today, too few graduates are equipped with the expertise needed in the job market. Educational systems need to change to focus on 21st century skills, not those of the past. While changing the education system is not an easy process, steps must urgently be taken now to implement short-, medium- and longer-term agendas that can move education in the right direction. There must be commitment from both the political and educational systems' leadership to make the necessary changes. In addition, coordination is needed across ministries and sectors.

Entrepreneurship should be embedded into the curriculum for all levels. However, the programmes need to be tailored for each age group, particularly in terms of motivation and behaviour. For all ages, skills such as leadership and self-efficacy are a key component. For young students in primary school, raising awareness and generating interest is important. For vocational, secondary school and university

students, entrepreneurship should be more experiential, hands-on and action-oriented. For all ages, role models and mentors, particularly those from the local area, are important for providing inspiration.

Links between academia and business are important, not only in making sure the curriculum is relevant, but also in providing role models, mentorship and expertise. Academic and business links are critical to building an entrepreneurial ecosystem, without which it is difficult for entrepreneurs to thrive. This requires partnerships (and trust building) across sectors and a regulatory environment that facilitates business creation and growth.

To create an entrepreneurial culture, parents need to have an understanding and positive attitude about entrepreneurship, as their views influence those of their children. Young people should be encouraged both at home and at school to pursue entrepreneurial opportunities. It was agreed that there needs to be a common language about why entrepreneurship is important for the economy, society and culture.

An increasing number of countries are developing national strategies for entrepreneurship education; however, key challenges lie in the implementation. Ministries must collaborate to develop national entrepreneurship education strategies and policies. In addition, there needs to be a clear understanding of the required outcomes, with measures put in place to monitor whether the programmes and policies are effective.

Call to Action

Education is a crucial foundation for economic development. In particular, entrepreneurship education can play an essential role in shaping attitudes, skills and behaviour – from the primary level up. It can be a societal change agent, a great enabling mechanism, serving as the catalyst needed to develop the new, innovative models necessary to achieve the aims of UNESCO's Education for All and the Millennium Development Goals.

The World Economic Forum initiated a call to action in 2009 and, with the support of the World Economic Forum Global Education Initiative (GEI) Steering Board, launched a series of roundtable dialogues in 2010-2011 in three regions – Europe, MENA and Latin America – to identify the actions required to foster entrepreneurship education. Action Groups have been established in these regions following each roundtable, to facilitate the implementation of roundtable recommendations. However, there is much more work to be done, including in other key regions around the world – Africa and Asia – where entrepreneurship is already playing a catalytic role. The four key components of the 2009 call to action still hold and should be the guiding principles for the work going forward.

¹ www.kauffman.org

1. Transform the Educational System

It is not enough to add entrepreneurship on the perimeter – it needs to be at the core of the way education operates. Educational institutions at all levels (primary, secondary and higher education) need to adopt 21st century methods and tools to develop the appropriate learning environment for encouraging creativity, innovation and the ability to think “out of the box” to solve problems. Embedding entrepreneurship and innovation, cross-disciplinary approaches and interactive teaching methods all require new models, frameworks and paradigms. It is time to rethink the old systems and fundamentally “reboot” the educational process.

2. Build the Entrepreneurial Ecosystem

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. Academic institutions are central to providing entrepreneurship education. However, actors outside of education systems are playing an increasingly critical role in working with both formal and informal educational programmes, as well as in reaching specific target groups that have been underserved and/or socially excluded. A thriving entrepreneurship ecosystem requires collaboration and multistakeholder partnerships, particularly between academia and business.

3. Strive for Effective Outcomes and Impact

Greater clarity is needed regarding the purpose and goals of entrepreneurship education. Entrepreneurship education concerns the development of attitudes, behaviours and capacities at the individual level. Inherently, it is about leadership and the application of skills and attitudes, which can take many forms during an individual's career, creating a range of long-term benefits to society and the economy. Developing and implementing a broader framework for assessing entrepreneurship education is necessary to capture a richer and more nuanced set of outcomes.

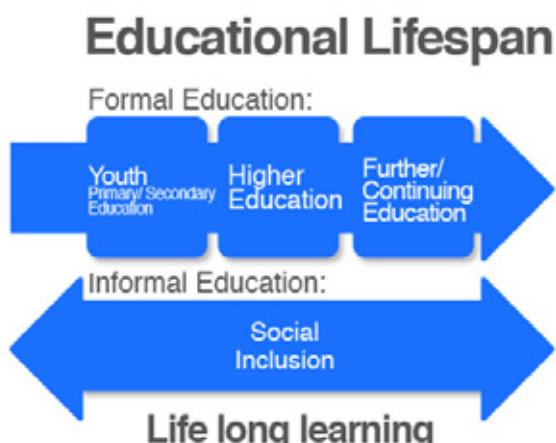
4. Leverage Technology as an Enabler

The parallel development of ICTs and media has changed the landscape, providing an opportunity to create greater access and scalability for entrepreneurship education. The ICT industry has been proactive in working with users, content developers, educational institutions, policy-makers and others to frame a set of opportunities that can be disseminated to those who would benefit most from it. The full range of implications for enterprise and entrepreneurship education needs to be further investigated, particularly in developing economies where scaling is critical.

III. Background

In 2008, the Steering Board of the Global Education Initiative embarked on a new workstream to focus on entrepreneurship education, as the growing importance of quality and relevance in education was becoming more apparent. Since then, the Global Education Initiative, its Steering Board and key stakeholders have been working with the Forum to study the evolution of entrepreneurship education, raise visibility about its importance and highlight key actions for further progress.

The workstream on entrepreneurship education has had several phases. Phase I aimed at building the evidence base on the topic. The result of Phase I was the report ***Education the Next Wave of Entrepreneurs***, which was published by the World Economic Forum in 2009. The report was developed by a core working group of authors² and through consultation with the Technical Advisory Group on Entrepreneurship Education (TAG) and other experts. The development of the report was supported by AMD, Cisco, Goldman Sachs, Intel and Microsoft Corporation.



The report covered youth, higher education and informal education systems that reach out to those socially excluded. In each area, the report identifies opportunities and challenges, highlights existing entrepreneurship education tools and good practices, and develops recommendations for multistakeholder support for the development and delivery of effective educational programmes for entrepreneurship.

² Steve Mariotti and Daniel Rabuzzi from the National Foundation for Teaching Entrepreneurship (chapter on Youth); Christine Volkmann from the Bergische Universität Wuppertal (chapter on Higher Education); Shaileendra Vyakarnam from the Centre for Entrepreneurial Learning, University of Cambridge (chapter on Social Inclusion); and Karen E. Wilson from GV Partners (executive summary, recommendations, Steering Board case studies and consolidation of the full report).

The report offers practical recommendations and approaches to specific target audiences – policy-makers, academia and the private sector – as well as many case studies and examples.

Following the launch of the report in 2009, a series of events were leveraged to raise awareness about the findings in the report as well as the importance of entrepreneurship education. Discussions took place during the World Economic Forum Annual Meeting in Davos as well as during regional meetings, including the Forum's Africa, Latin America, India and MENA meetings. In addition, the report has been presented and discussed at international, national and regional forums around the globe. These events highlight the growing appetite for entrepreneurship education, as well as the interest and need for developing the entrepreneurial ecosystem to enable entrepreneurs to thrive, create and grow businesses and social ventures.

Phase II has focused on bringing together stakeholders, including policy-makers, corporations, educators, entrepreneurs and students, to identify concrete actions to be taken in selected regions around the world through a series of high-level roundtables. The goals of the roundtables have been to build on the recommendations of the report to develop a set of locally relevant action plans for different regions and to create a set of stakeholders committed to driving those actions in the region. The first roundtable took place in Brussels, Belgium, in May 2010 following the **World Economic Forum on Europe**. The second roundtable took place in Marrakesh, Morocco, in October 2010

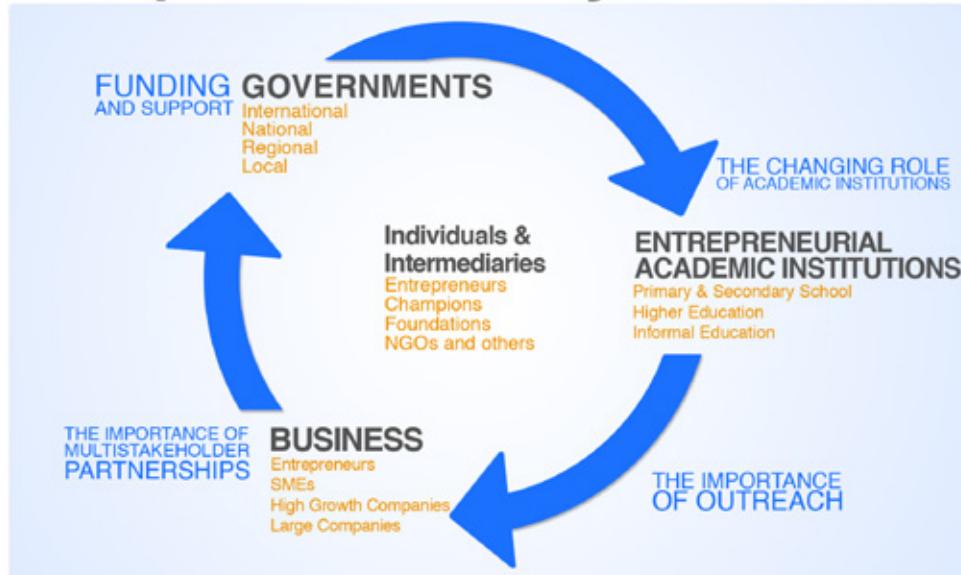
prior to the **World Economic Forum on the Middle East and North Africa**. The third roundtable took place in Rio de Janeiro, Brazil, in April 2011 prior to the **World Economic Forum on Latin America**.

Each roundtable has resulted in a manifesto (see appendix) for entrepreneurship education and 21st century skills development with action items identified, which are outlined in the more detailed Roundtable Reports available on the World Economic Forum website. In each region, the "Advisory Groups" for the roundtable have turned into "Action Groups" committed to pursuing the regional agenda resulting from the roundtable.



MENA Roundtable on Entrepreneurship Education, October 2010

Entrepreneurial Ecosystem



IV. Key Themes and Suggested Actions from Roundtables

The high-level roundtables led to the identification of key themes and suggested action items. Many common themes arose in each region, although each with different areas of emphasis. Below is a summary of the overall key themes. The manifestos for each region can be found in the appendix, which outlines the specific areas of focus of each roundtable.

Key Themes from all Roundtables

- Promoting and raising awareness about the importance of entrepreneurship and entrepreneurship education
- Transforming the education system to focus on 21st century skills to meet the future skills gap
- Building policy commitment for entrepreneurship education
- Developing high-level commitment with academic institutions
- Catalysing multistakeholder partnerships
- Training, developing and motivating teachers
- Leveraging and scaling good practices
- Striving for effective outcomes and measures of impact

Promoting and Raising Awareness about the Importance of Entrepreneurship and Entrepreneurship Education

A cultural mindset change is needed about entrepreneurship. There are many misconceptions about entrepreneurship, and in many countries around the world it is not always viewed positively. In addition, in many countries the fear of failure is higher than perceived entrepreneurial opportunities. The first step for building support for entrepreneurship education is therefore to promote entrepreneurship more broadly to change society's perceptions about what it means to be entrepreneurial and to be an entrepreneur. Greater awareness and access to role models and success stories (international, national and local) are needed to encourage young people to pursue their potential. The media and new forms of social media should be leveraged to raise awareness as well as facilitate networks and partnerships.

Training has to be practical, building links between academia, business and real entrepreneurs. Entrepreneurs serve as important role models for students and bring reality into the classroom. Entrepreneurs and others with entrepreneurial experience should be integrated into classroom discussions and hands-on projects with students,

as entrepreneurs provide great value in the learning process. Engaging them also enhances the entrepreneurial spirit within the institution overall, and creates stronger links with the local community and the entrepreneurial ecosystem. Programmes and activities outside of formal education play a key role in providing greater access to entrepreneurial training and should be expanded.

Suggested Actions

- **Raise awareness and interest through entrepreneurship campaigns**
Link into existing movements such as Global Entrepreneurship Week (www.unleashingideas.org) and encourage the participation of all countries across a region as well as more partners within each country. Partners should include schools, NGOs, government agencies, companies, entrepreneurs, etc.
- **Leverage the media to provide stories about successful entrepreneurs**
Print, online and social media can play a critical role in shaping society's views on entrepreneurship. Stories about entrepreneurs can provide role models for youth and generate greater interest in entrepreneurship. TV plays a particularly important role – partnerships should be created to further develop quality entrepreneurship programmes to reach broader audiences.
- **Integrate entrepreneurs into the classroom**
Invite entrepreneurs to participate in classroom discussions and provide opportunities for students to visit entrepreneurial firms, potentially engaging in projects with these companies.

Transforming the Education System to Focus on 21st Century Skills to Meet the Future Skills Gap

Entrepreneurship and innovation are driving new ways of learning, living and working. Embedding entrepreneurship and innovation, cross-disciplinary approaches and interactive teaching methods in education require new models, frameworks and paradigms. Changes in the educational system are needed across all levels and should address the lifelong learning process as well as critical links and interactions between levels (primary, secondary, higher and vocational education).

Educational institutions, from the earliest levels up, need to adopt 21st century methods and tools to develop the appropriate learning environment for encouraging creativity, innovation and the ability to think "out of the box" to solve problems. Entrepreneurship enables the development of leadership and life skills

and has become increasingly recognized as a key competency. This includes skills such as cognitive, social and emotional capacity, flexibility, self-confidence, having respect for oneself and others, having a sense of identity and belonging, empowerment, ethical development, ability to apply knowledge to solving problems, understanding economics, having the ability to access and use information effectively, and communication skills across cultures and languages.

There are many new models being tested around the world, both inside and outside of formal educational systems, which need to be shared more broadly to fuel new and more effective approaches to entrepreneurship education. More must also be done to facilitate student exchanges, faculty collaboration and research across borders.

Suggested Actions

- **Repositioning of entrepreneurship education**
Shift the dialogue from a focus on entrepreneurship education to the broader agenda of entrepreneurship as a core competency necessary for building skills for the future.
- **Adapt new learning models and approaches**
Interactive pedagogies are needed to equip young people with the skills they need to be successful. These approaches are also critical for developing entrepreneurial thinking.
- **Map existing entrepreneurship provision with schools and universities**
It is important to understand the starting point to identify gaps, opportunities and possible action steps.
- **Require entrepreneurship in the curriculum at all levels**
All students should be exposed to entrepreneurship, regardless of their future career ambitions. Entrepreneurship skills are critical for life skills.

Building Policy Commitment for Entrepreneurship Education

Governments must act now to address the growing skills gap. This requires a clear and coherent commitment at the highest political levels. Policies should send a strong signal of support for entrepreneurship and also set the strategic framework in which schools and universities can work to implement programmes and activities within their institutions. To do so, greater coordination is necessary across ministries, and action is needed at the national, regional and local levels.

To facilitate an entrepreneurial ecosystem, the appropriate regulatory framework is necessary. Regulations that restrict entrepreneurship, such as bankruptcy laws, should be modified. However, policies and national strategies are not enough. The engagement of stakeholders in the entrepreneurial ecosystem – academia, business, the NGO community, international institutions and foundations – is critical to ensure the development of relevant policies and to assist in the implementation of programmes.

Suggested Actions

- **Build on existing work on policies and guidelines**
The European Commission, ILO, UNESCO and several other UN bodies have recently conducted work on entrepreneurship education policies. This work should be built on to develop and disseminate a set of customized guidelines relevant for countries around the world.
- **Create a cross-country and sector coordinating body to drive action**
Extend the role and membership of the Regional Action Groups and continue the work of the groups to drive action and commitment across the region. Engage policy-makers, create champions and instil urgency for action.
- **Promote entrepreneurship education policy in countries across regions**
Hold roundtables in selected countries with the heads of government and senior officials from ministries, such as enterprise, education and employment, to build high-level and cross-ministry support.
- **Move entrepreneurship higher up on the political agenda**
Action Group members, as a group as well as individually, should participate in high-level policy events across their regions to promote entrepreneurship education.

Developing High-level Commitment with Academic Institutions

While many young people feel that being an entrepreneur (i.e. being your own boss) is “cool”, educational institutions have not integrated entrepreneurship sufficiently into the curriculum and tend to have a narrow view of entrepreneurship as only about business and start-ups. A cross-disciplinary approach is essential, as many entrepreneurs do not come from business schools but rather from disciplines such as design, medicine, science and engineering.

To improve access to entrepreneurial skill development, a strong commitment is needed from the top of educational institutions. Too often, entrepreneurship is driven by one or a few people without the full support of the institution. Currently, too much “lip service” is being paid to entrepreneurship without sufficient reach to students. Academic institutions need to “walk the talk”, which includes providing the proper incentives and support for educators and students. Student-led initiatives should be encouraged to leverage the inherent interest of students in entrepreneurship.

There also needs to be a concerted focus on technological skills. While young people are active in using social media tools such as Facebook, Twitter and YouTube, relatively few are interested in understanding the basic scientific and mathematical principles behind new technologies. It is important that science, technology, mathematics and engineering skills (STEM) are promoted and taught in ways that engage more students. Many high-growth companies are based on science and technology. If countries want to have more high-growth companies, entrepreneurs must acquire the necessary underlying skills to create and grow them.

Suggested Actions

- **Engage the heads of schools and universities**
Make a concerted effort to reach out to the heads of schools and universities to engage them in a dialogue about the importance of embedding entrepreneurship in the curriculum. This should be done through associations of school and university heads as well as through one-on-one contact.
- **Integrate entrepreneurship across the curriculum**
Most entrepreneurs come from science, technology and design backgrounds and not necessarily business. Entrepreneurship, which is currently provided primarily in business schools, should be integrated across disciplines.
- **Create “design labs”**
Provide safe and fun environments in which students can experiment with ideas and “test drive” entrepreneurial ideas to enable them to learn as well as reduce their fear of failure when considering future initiatives.
- **Recognize entrepreneurial schools and universities**
Create awards for schools and universities that are entrepreneurial and innovative, and that have integrated the teaching of these skills in the curriculum and activities of the institution.
- **Generate interest in science, technology, engineering and math**
Countries around the world need more young people to develop core STEM skills. Entrepreneurship can be a vehicle for making these topics more appealing to young people.

Catalysing Multistakeholder Partnerships

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. In particular, education should be better linked with practice to ensure that future skills match future jobs. Academia should be encouraged to reach out to the business community and integrate them into the learning process. Students need to be given the opportunity to experiment and experience entrepreneurship.

Multistakeholder partnerships play a key role in developing practice-based programmes and initiatives. These partnerships should be based on mutual respect, transparency and accountability. Each partner must have ownership and benefit. There needs to be a lead partner and metrics for success. Each partner has to bring something to the table, with everyone operating on a level playing field.

These partnerships can help create an entrepreneurship learning system that has: 1) adoptability to the local system; 2) local people for endorsement; 3) leadership continuity; 4) succession planning; 5) political engagement; and 6) a system-driven approach. Through these partnerships, support for teachers should be established. Private individuals and alumni should also be part of the system. Technology can be used as an accelerator, providing data for metrics and reducing the risk by allowing for experiments before taking initiatives to scale.

Suggested Actions

- **Create new multistakeholder partnerships to contribute to the entrepreneurship learning system**
These partnerships should start by launching specific programmes and initiatives, learning from those experiences and then documenting and sharing practices that are working for others to leverage.
- **Build links and partnerships between existing initiatives**
Encourage collaboration, not competition. There are many overlapping initiatives within countries and regions. Combining efforts can lead to much greater impact and help build networks across sectors.
- **Recognize successful multistakeholder partnerships to encourage others**
These partnerships are not easy to initiate or run well. Create awards for successful public-private partnerships in entrepreneurship education.
- **Develop a global online platform for entrepreneurship education**
Identify organizations active in this field and develop a “playbook” stakeholder directory and/or an online network to facilitate the sharing of information, good practices and connections.

Training, Developing and Motivating Teachers

Teachers are the key to reaching students and providing the scaling needed in entrepreneurship education. Teachers should be empowered, applying the same rules and skill sets as students. An environment needs to be created for teachers where they can also develop themselves to become cycle breakers, leaders and guides.

It is critical to train, develop and motivate educators to teach entrepreneurship. To teach entrepreneurship education most effectively, teachers need to learn new skills such as using interactive teaching methods and developing project-based work. This is a challenge, particularly in regions in which there is a lack of the necessary resources for education and in which the teaching profession is not given the proper status and recognition. Partnerships can be created between schools of education and other schools to facilitate faculty training.

There are many new models being tested around the world, both inside and outside of formal educational systems, which need to be shared more broadly to fuel new and more effective approaches to entrepreneurship education. While international materials and programme packages can be leveraged, they need to be tailored to the local environment and include local examples.

Suggested Actions

- **Empower teachers with the necessary tools, training and incentives**
Develop training programmes and build networks for entrepreneurship educators, leveraging existing international programmes as well as creating new local initiatives.
- **Share global best practices in teacher training and adopt international standards**
Leverage existing international standards for teacher training and identify best practices on a global basis, bringing in the regional and local levels, adapted as appropriate for the local context.
- **Provide awards for entrepreneurship faculty**
Increase the quantity and quality of entrepreneurship faculty by providing proper rewards and incentives.

Leveraging and Scaling Good Practices

While an increasing number of entrepreneurship education programmes exist around the world today compared to a decade ago, scalability and penetration remain key challenges. In today's environment, technology plays an increasingly important role in the

educational process, both as a delivery channel and a teaching tool. Not only can technology help reach larger audiences, including those who previously might not have had access to entrepreneurship education, but it can also help in the development of interactive and locally relevant programmes and materials. Technology provides a mechanism for reaching greater economies of scale as well as providing broader sharing of practices.

Suggested Actions

- **Identify and share good practices**
Identify good practices through a process that screens and evaluates existing practices from the region and around the world. Create resource guides and vehicles for sharing these practices.
- **Develop online tools, course materials, videos and games**
Leverage technology to facilitate access to entrepreneurship education and adapt traditional education techniques so that they are more entrepreneurial. Leverage internationally relevant materials and develop materials tailored for the local context, including videos and stories about local role models.
- **Scale up existing good practices**
Build multistakeholder partnerships to scale up existing good practices. Leverage media (including TV) and technology to provide greater access and awareness.

Striving for Effective Outcomes and Measures of Impact

More effective measurement and evaluation of the impact of entrepreneurship education programmes and policies is needed. These should be based not only on inputs but also on outputs and outcomes, including both cognitive and non-cognitive data. Evaluation needs cover both short-term results and longer-term impact in both formal and informal education. Data is critical for building evidence-based policies and increasing the chance that governments will adopt and maintain policies.

Currently, there is limited data on entrepreneurship education. For comparable data across countries, there needs to be agreement on the definition of entrepreneurial competency, the scope of what should be measured and agreement on the process of data collection. Existing data collection efforts should be coordinated to enable the development of an agreed-upon framework and process for collecting entrepreneurship education indicators. At the same time, differences in the culture and business environments between countries must be taken into account.

Suggested Actions

- Develop a conceptual framework for a set of indicators at the national level**

Leverage existing and develop new indicators to provide an overview on developments within countries and create incentives for action. Build links across the Regional Action Groups to share ideas and progress.

- Build international collaborations on indicator development**

While national metrics and indicators are useful, international comparable statistics allow benchmarking across countries. National initiatives in this area can therefore benefit by linking in with regional and/or international (OECD, EU, etc.) initiatives to ensure comparability.

Suggested Actions

- Develop stronger links between academia and business**

Work on overcoming traditional barriers by creating initiatives that bridge traditional gaps between business and academia. Where they exist, remove legal restrictions on the engagement of practitioners in the classroom and professors in business.

- Focus on building cross-sector links within the local ecosystem**

Create opportunities for key stakeholders from various sectors to get to know each other, become familiar with each other's initiatives and start to build trust and an interest in collaboration.

Developing the Entrepreneurial Ecosystem

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. This is evident in the Silicon Valley, the Boston area and other thriving entrepreneurial regions around the world. Academic institutions are central in shaping young people's attitudes, skills and behaviours. Educational institutions, particularly at the higher education level, provide a critical role as intellectual hubs in entrepreneurial ecosystems by serving as incubators for innovation and research, and focal points for collaboration among researchers, students, professors, companies and entrepreneurs.

However, actors outside of education systems play an increasingly critical role in working with formal and informal educational programmes, as well as in reaching underserved and socially excluded target groups. These other stakeholder groups include governments (national, regional and local) and companies (both large and small). Therefore, creating a functioning entrepreneurial ecosystem requires collaboration and multistakeholder partnerships.

Foundations, NGOs and other organizations can play important facilitatory or intermediary roles, often helping to link various stakeholders. Most important are the champions (often serial entrepreneurs but also educators, staff or students) who leverage their social capital and serve as catalysts for building the entrepreneurial ecosystem.

Greater interaction between business, schools and universities needs to be encouraged. Companies and entrepreneurs can play instrumental roles in shaping entrepreneurial mindsets of young people by providing knowledge, expertise, mentoring, social capital and financial support.

IV. Policies for Entrepreneurship Education

Experience in several countries has found that a number of key success factors are important for entrepreneurship education:

- Securing political commitment of the government leadership
- Encouraging cross-ministry collaboration
- Establishing policies with clear goals and measurable targets
- Allocating the appropriate budget
- Launching entrepreneurship education programmes across all levels
- Training and development of teachers
- Facilitating networks



Europe Roundtable on Entrepreneurship Education, October 2010

At the national level, commitment is needed at the highest levels of government as well as greater collaboration between the various ministries involved in entrepreneurship and education. A ministerial-level office or champion for entrepreneurship education is often established to coordinate entrepreneurship education policies between ministries, or a cross-ministry, multistakeholder working group can be set up.

It is also important to have a clear understanding of what needs to happen at each stage of the education system (primary, secondary, tertiary) and how those stages are linked for entrepreneurship education to advance. Essentially, there must be a paradigm shift in the education system. It must be clear who “owns” the strategy, how to prioritize efforts and, very importantly, how to measure the results. Education reform will not work without policies in place to change the existing metrics.

The proper incentives need to be in place for the key stakeholders involved in implementing the policies. Government can help scale, but the driver of change has to come from a multistakeholder partnership

focused on positive social change. The private sector can help drive effective, timely change. Multistakeholder partners should provide curriculum guidance, interns and mentors. In addition, systematic ways should be identified for the private sector to employ students before graduating so that they can be more readily integrated into the workforce.

However, strategy alone is not enough. There must be a clear implementation plan that engages all the necessary stakeholders. At the same time, there are many entrepreneurship education initiatives outside of the public education system; a strategy is needed to scale them up. The building blocks for entrepreneurship should be identified and required outcomes need to be monitored to ensure the efficiency of the programmes and policies.

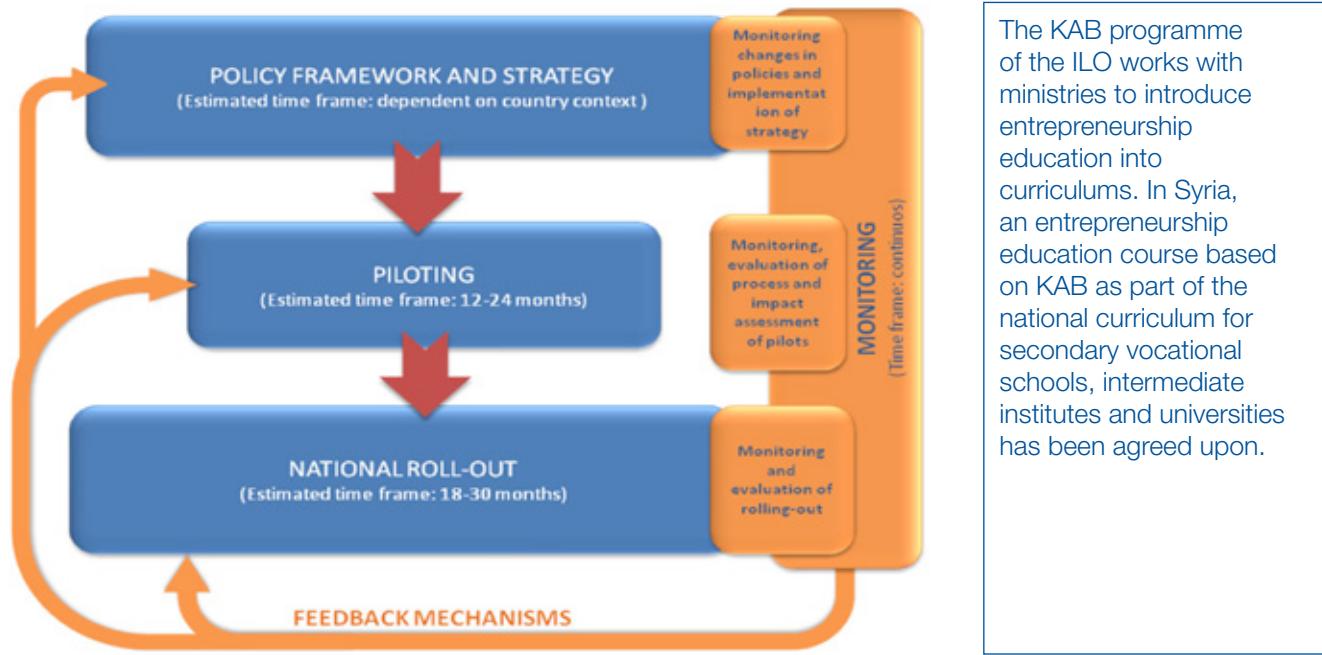
During a roundtable, the International Labour Organization (ILO) shared a draft of policy guidelines the organization recently developed for entrepreneurship education. These guidelines were based on experience in working with governments and stakeholders around the world to integrate entrepreneurship education into the curriculum through their Know about Business (KAB) and other related programmes. While the guidelines are still a “work in progress”, participants found them to be a useful guide for policy-makers and suggested that the World Economic Forum’s Entrepreneurship Education workstream try to build on them.

One of the major challenges standing in the way of entrepreneurial education is the lack of evaluation. This concern was emphasized in all roundtables. Both individual organizations and public institutions need a reference for measuring the outcomes of their efforts so they can better formulate a strategy to increase the scale and efficiency of their initiatives.

Another challenge for advancing entrepreneurship education is funding. While many public programmes exist, funding often ends before sustainability is reached. Scaling also remains a challenge. While there is a growing body of good practice across the world, these initiatives have not yet been leveraged to achieve greater impact and scale. Multistakeholder partnerships are necessary not only to help develop the educational systems needed for the future, but also to bring existing initiatives to greater scale. Technology can play a key role in scaling initiatives.

However, it must be kept in mind that each country and region is different and, therefore, the needs and approaches might also differ. Platforms and networks for sharing and learning from practices across sectors as well as from other countries can play a crucial role.

Below are some examples of government initiatives being implemented in a number of regions and countries. These examples were presented and discussed in the various roundtables.



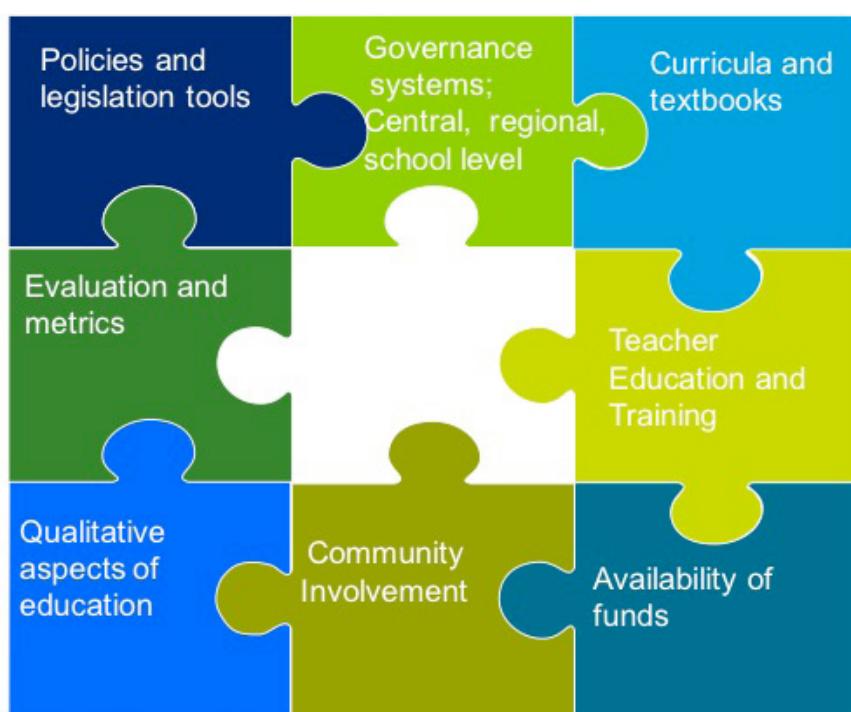
Source: ILO 2011

The KAB programme of the ILO works with ministries to introduce entrepreneurship education into curriculums. In Syria, an entrepreneurship education course based on KAB as part of the national curriculum for secondary vocational schools, intermediate institutes and universities has been agreed upon.

European Commission

The European Commission made entrepreneurship a priority in its previous *Lisbon Agenda* and again in its new *Europe 2020* strategy. The commission is working with member states and other stakeholders to improve European coordination and has funded many EU programmes to promote entrepreneurship and entrepreneurship education. An agreed definition of the term “entrepreneurship education” at the European level is essential, as the term does not just relate to start-ups – it applies to everyone and is focused on *turning ideas into action*. Entrepreneurship is a key competence for life.

Following the development of the Oslo Agenda³, the commission embarked on a series of activities focused on entrepreneurship in higher education and produced an expert report as well as a mapping of entrepreneurship education in universities across Europe⁴. Most recently, the commission has organized high-level panels⁵ on entrepreneurship education in regions across Europe with the aim of ensuring an effective exchange of ideas between ministries of education and economy (the panels also included teachers, NGOs, representatives from the world of business and other key players).



Source: ILO 2011

³ http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo_agenda_final_en.pdf

⁴ http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/higher-education/index_en.htm

⁵ http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/reflection-panels/index_en.htm

The commission encourages entrepreneurship to be introduced into the national curricula and be recognized by the educational authorities. The commission highlights that one of the most urgent issues is to train teachers. Teaching entrepreneurship requires different approaches and teaching methods. Educators need to serve as facilitators, which is sometimes a new and perhaps uncomfortable role for them. Initiatives should be introduced so that teachers do not feel threatened.

Palestinian Territories

The Palestinian Territories do not have an industrial-based economy; 99% of the economy is comprised of small and medium-sized enterprises with less than 20 employees. It is therefore important to clarify the role that entrepreneurship plays and why it is important. For the government, entrepreneurship education not only increases the opportunity for employment but also increases the opportunity for economic development.

Entrepreneurship needs to be embedded in the educational system. In terms of scaling entrepreneurship education, the ministry of education has a very important role at all levels of education. However, it is particularly important in terms of the pool of unemployed university graduates, in which a lot has been invested but with little return. Recently, the Palestinian Territories have developed and revised for the second time the strategy for vocational and technical education. A council has been formed including all public stakeholders – the ministries of education, labour, economics, social affairs and women's affairs.

While there are many individual initiatives going on, the major challenge is to evaluate and scale best practices.

Egypt

Egypt provides another example of including other public bodies, in addition to the ministry of education, in the process of developing innovation and entrepreneurship education. The ministry of communication has partnered with the business sector to use ICT to create a more innovative environment. The ministry of communication has also started working with the ministry of higher education to focus on leveraging ICT to accelerate education.

Egyptian culture needs to be geared towards entrepreneurship. There is a vast pool of local talent and in the past years the country has attracted multinational companies to leverage those local skills. The next step is to build more partnerships and empower Egyptians to be entrepreneurs.

Some of the key issues in Egypt include localization, partnerships and mentoring, access to finance, access to markets and scaling. It is necessary to develop a strategy for enabling entrepreneurship. When working in partnerships with multinational businesses, the first step in this strategy is localization. The second step is providing access to financing. The system for financing in the country needs to be set up. Mentors and partners are needed from businesses to teach and lead the way. For entrepreneurship to develop, having access to markets is the next challenge and this is also where partnerships with multinational companies are essential. Business partnerships create the means to access markets. The role of the government in this strategy is to facilitate the creation of the ecosystem. Once the government has established this and provides support for the system, then everything will start to move. Based on this strategy, Egypt has been working on developing a system for the last five years. In 2011, an initiative will be launched where all the above-mentioned components will be highlighted.

Argentina

Esteban Bullrich, Minister of Education for the Federal Capital of Argentina, identified one of the key challenges in the region to be achieving consistency and continuity in policies, due to a cultural tendency for incoming administrations to overturn or put an end to a predecessor's projects. Another challenge is providing students with the freedom to pursue their own ideas. This requires changes in teaching models in middle and secondary schools. Integrating entrepreneurship into education requires developing entrepreneurial teachers and making them more independent of governments and unions – not an easy challenge. Minister Bullrich identified partnerships with other countries as one strategy for embedding practices and making it more difficult for the next government to uproot or reverse policies.



Latin America Roundtable on Entrepreneurship Education, April 2010

He provided details of initiatives in Argentina. One designed to train headmasters and school directors in leadership includes outreach initiatives that increase parent participation in school events. Another initiative promises to provide children with their own laptops; advance teacher training is fundamental to success.

Brazil

Roberto dos Reis Alvarez, Manager of International Affairs, Brazilian Agency for Industrial Development (ABDI), said that it is more important to introduce entrepreneurship education to the public rather than to the private sector. But he said that public-private partnerships are needed to develop entrepreneurship education programmes that match the needs of each country.

He added that entrepreneurship education needs to have more hands-on initiatives so that students can develop their business capabilities and be helped to match those capabilities to business opportunities. He said innovation is critical to building the Brazilian economy, and entrepreneurs are the engine for such innovation.

Chile

Veronica Abud Cabrera, General Education Director of the Ministry of Education in Chile, and Valeria Steffens Vidal, Project Manager of the Innovation Division of the Ministry of the Economy, spoke about the need to ensure quality education for all 3.4 million primary and secondary Chilean students. With that need in mind, Abud Cabrera talked about “the goal of developing a national programme for entrepreneurship education using multiple methodologies”.

Abud Cabrera added that the education and economy ministries had collaborated in developing an entrepreneurship education programme and, in 2010, registered 78,000 students from 546 schools. They also invested US\$ 3 million to develop entrepreneurship education teaching methodologies. She said that the two ministries plan to “measure the impact of developing a national public policy for entrepreneurship education by 2014”. Abud Cabrera added that such a policy “not just needs to be related to the business sector but also must have civil society support”.

Ecuador

Freddy Penafiel, from Ecuador’s Ministry of Education, and Camilo Pinzón, General Coordinator of Enterprise Investment and Development at the Ministry of Employment and Competitiveness, discussed how the two ministries are working together to develop entrepreneurship education policies in Ecuador. Penafiel said they are developing a model for placing

entrepreneurship in high school classrooms. He said that they are devising an entrepreneurship education curriculum for high school students and will involve the ministry of employment and competitiveness to develop it. He added that, in Ecuador, students from technical high schools are required to go into the trade they learned in technical school and are not allowed to go to universities, which are open only to students from traditional (non-technical) high schools. He said that entrepreneurship education programmes should allow and encourage students from technical schools to go to universities.

Pinzón said that Ecuador needs to boost employment and not rely so heavily on exporting oil and raw materials. He said that this could be done in part by using entrepreneurship education programmes to stimulate the growth of “new high-growth companies”. In 2010, the Ecuadorean government sponsored a national contest, publicized on TV, for developing new high-growth companies. The contest received 4,500 ideas (from contestants who were 18 years of age or older), selected 300 winning ones and granted each US\$ 10,000 to develop a business plan for the new high-growth company. Pinzón added that his ministry wants to connect these 300 winners with “angel investors” who can provide capital, networking and coaching to help create these new high-growth companies.

Mexico

Mario Martin Delgado Carrillo, Secretary of Education for Mexico City, said that, in Mexico, 36 million people are between 12 and 29 years of age; the fastest-growing group is between the ages of 15 and 18. He said that 19% of those between 12 and 29 years of age (7 million people) are neither working nor studying, while 41% of them are studying and 39% of them working.

Because of the high percentage of 15 to 18-year-olds neither working nor studying and because of a 25% high school dropout rate in Mexico City, the city government in 2008 started a “Yes, High School” programme, in which it pays 15 to 18-year-olds between US\$ 50/month to US\$ 70/month (depending on their grades) to remain in high school. “In part, because of these municipal government grants, the Mexico City high school dropout rate has been reduced from 20 to 6%, which means that 120,000 people have stopped leaving the educational system,” said Delgado Carrillo.

VI. The Way Forward

The roundtables brought together key stakeholders – policy-makers, academics, business leaders, civil society and students – engaged in entrepreneurship education. Each roundtable resulted in three main outcomes. The first outcome was the creation of a manifesto for each region with the recommendations being fed into World Economic Forum regional meetings taking place the same week. Each of the roundtables also presented at leading events across each region. The second outcome was the creation of a roundtable report for each region, documenting the background research on each region, highlighting key points of the discussion and summarizing the recommendations. The third and most important outcome was the creation of Action Groups in each region, which have been using the manifestos as a guide for continued work on this topic.

Europe Action Group (EAG)

The European Action Group (EAG) was the first Action Group created and was set up following the GEI Entrepreneurship Education Roundtable in Europe in May 2010. The European Action Group (EAG) has focused its work on promoting the actions outlined in the European Manifesto across Europe. This includes three main areas of work: 1) conducting outreach to share the key messages of the manifesto at key events in Europe and in high-level, one-on-one meetings with policy-makers; 2) collecting, reviewing and sharing good practices; and 3) developing entrepreneurship indicators. The EAG has one conference call per quarter to discuss progress. The EAG chairman, Jan Meuhlfelt, Chairman of Microsoft Europe, recently presented a set of deliverables from these working groups at the World Economic Forum on Europe and Central Asia, which took place on 8-9 June 2011. In addition, the EAG has created a Web space, or blog, in which it has posted information about the EAG, its members and related initiatives. The blog also lists past and upcoming events related to entrepreneurship education in Europe. For further information, visit <http://europeanactiongroup.wordpress.com/>.

MENA Action Group (MENA AG)

Similarly, the MENA Action Group (MENA AG) was set up to serve the Middle East and North Africa region following the roundtable that took place in late October 2010. While the recent unrest in the region has slowed the progress of the group, it has also served to enhance the importance of providing more opportunities to young people through entrepreneurship and entrepreneurship education. The group has held

one conference call and has brainstormed on a number of possible actions to take the recommendations in the MENA Manifesto further in the months ahead. One action will be to investigate the possibilities of linking the activities of the MENA AG to the Arab Regional Agenda on Improving Education Quality (ARAIEQ) mandated by the Arab League Educational, Cultural and Scientific Organization (ALECSO). Injaz Al-Arab, a prominent NGO in the area of entrepreneurship education in the region, is serving as MENA AG chair.

Latin America Action Group (LATAM AG)

Given that the Latin America meeting took place only at the end of April 2011, the Latin America Action Group (LATAM AG) is still in the initial planning phase. As the other regions have, it plans to use the Latin America Manifesto to guide the actions of the group. There was strong consensus during the roundtable that the group should proceed in partnership since the tasks at hand cannot be addressed with any lasting significance by one entity acting on its own. Suggested actions include making a strong case for a political commitment to entrepreneurship education policies, which, in order to achieve continuity, should be grounded on very convincing evidence-based policy advice. This will increase the chance that an incoming government will adopt and maintain these new policies. There was also a commitment to focus on teachers, including their education, recruiting, compensation and morale. As an initial pilot, the minister of Buenos Aires and the minister of Sao Paulo agreed to collaborate on a teacher training initiative over the coming year. In addition, the group plans to share good practices in entrepreneurship education more broadly and agreed to work on developing an online platform for Latin America. Endeavor and UNESCO are serving as the co-chairs of the LATAM AG.

Additional Initiatives

The Steering Board representatives from Cisco, Intel and Microsoft have launched a joint initiative focusing on evaluation and assessment of entrepreneurship education practices, which they hope will facilitate policy changes and scaling of initiatives that work well. They also have put together a resource guide that highlights their initiatives in entrepreneurship education, and they would like to build on it by adding other initiatives. Their goal is to create a common frame and a set of resources that are easily available to all stakeholders and provide an overview of activities in the region as a way to help build collaboration and partnerships.

Next Steps

After eight years as one of the flagship initiatives of the World Economic Forum, the Global Education Initiative will complete its mandate as an active Forum initiative in summer 2011. The three Regional Action Groups are the primary mechanisms for the continuation of the GEI Entrepreneurship Education workstream. Additional opportunities to furthering this work exist:

World Economic Forum Global Agenda Councils

The World Economic Forum Global Agenda Councils bring together experts from academia, civil society, government and the private sector on themes critical for the development of the industry, regional and global agendas. In 2011-2012, the overall topic of human capital development and the link between education and economic growth/employment will be a key theme for several education and employment-related Councils. The chairs of the Regional Action Groups are all represented on these Councils, which will provide the opportunity to link the work of the Action Groups to the broader work of the Global Agenda Councils.

Uptake with International Organizations

Discussions are underway with international organizations such as the ILO, UNESCO and the World Bank – all of whom have participated in the various regional roundtables – to identify possible ways in which they can provide platforms for the continued work at either the regional or global level.

The World Economic Forum encourages all organizations to use the work developed in the GEI Entrepreneurship Education workstream to further the development of this crucial theme at the industry, regional or global level.

VII. Appendices

Acknowledgements

GEI Steering Board Members

The World Economic Forum recognizes the following GEI Steering Board Members for their leadership and stewardship in the development of the Europe, MENA and LATAM Roundtables on Entrepreneurship Education: Abraaj Capital**, Cisco, Deloitte, EMC Corporation, Hewlett-Packard***, Intel, Lenovo***, ManpowerGroup*, McGraw-Hill*** and Microsoft, and thanks all the GEI Steering Board Members for their many years of support.⁶

Special thanks are due to Karen Wilson for her facilitation of the roundtables and lead authorship of this report and to Deloitte for the provision of research assistance associated with the Entrepreneurship Education Roundtable process.

Advisory Groups on Entrepreneurship Education

The World Economic Forum would like to thank the following organizations, members of the LATAM, MENA, and Europe Advisory Groups on Entrepreneurship Education, for their active support in the preparation of the three roundtables.

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⁶*support to MENA and LATAM roundtables only

**support to MENA roundtable only

***support to LATAM roundtable only

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Silatech
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Students in Free Enterprise (SIFE)
The Prince's Youth Business International (YBI)
United Nations Educational, Scientific and Cultural
Organization (UNESCO)
United Nations Industrial Development Organization
(UNIDO)
Universidade de São Paulo
University of Cambridge
University of Sousse
Youth Business International (YBI)

MANIFESTO



Investing in Europe's Future – Manifesto for Unlocking Human Potential

Europe is facing challenges in terms of competitiveness as well as economic and sustainable growth. Competition is increasing from other regions around the world that have been quicker to adapt and pursue new opportunities, and the gap between skills and jobs is widening. Europe must invest in developing entrepreneurial and innovative skills to build sustainable economic development, create jobs, generate renewed economic growth and advance human welfare. Europe needs to equip future generations with the necessary skills for the 21st century. The new Europe 2020 Strategy emphasizes skills and education, but the mandate needs to go beyond quantitative measures to qualitative outcomes.

On 11-12 May 2010, on the occasion of the World Economic Forum on Europe, the steering board of the World Economic Forum's Global Education Initiative, the European Advisory Group and other leaders from business, government, academia and civil society gathered in Brussels for a private, high-level roundtable meeting on entrepreneurship education. The discussions led to the creation of this manifesto, which is built around seven pillars.

I. Transform the Educational System through Entrepreneurship

Educational institutions, from the earliest levels up, need to adopt 21st century methods and tools to develop the appropriate learning environment for encouraging creativity, innovation and the ability to think "out of the box" to solve problems.

Entrepreneurship enables the development of leadership and life skills, and has become increasingly recognized as a key competency. Entrepreneurship and innovation are driving new ways of learning, living and working.

Embedding entrepreneurship and innovation, cross-disciplinary approaches and interactive teaching methods in education requires new models, frameworks and paradigms. It is time to rethink old systems and fundamentally "reboot" the educational process in Europe. Changes in the educational system are needed across all levels and should address the life-long learning process as well as critical links and interactions between levels (primary, secondary, higher and continued education).

II. Build Policy Commitment

Governments across Europe must act now to address the growing skills gap. This requires a clear and coherent commitment at the highest political levels. Policies should send a strong signal of support for entrepreneurship and also set the strategic framework in which schools and universities can work to implement programmes and activities within their institutions.

To do so, greater coordination and action are needed at the national, regional and local levels. In addition, the engagement of stakeholders from academia, business, the NGO community and foundations is important in the development of policies and implementation of programmes.

III. Develop Institutional Commitment

Academic institutions in Europe must revamp their programmes to enable the development of 21st century skills. Commitment is required from the top of the institution coupled with clear strategies and tangible action plans. Currently, too much “lip service” is being paid to entrepreneurship without sufficient reach to students.



Academic institutions need to “walk the talk”, which includes providing the proper incentives and support for educators and students. Student-led initiatives should be encouraged to leverage the inherent interest of students in entrepreneurship.

IV. Train, Develop and Motivate Teachers

There is a need to increase the number of entrepreneurship educators in Europe as well as further develop them by providing the appropriate training, particularly in interactive teaching methods. Entrepreneurs and others with entrepreneurial experience should also be allowed, encouraged and trained to teach. They not only provide great value in the classroom, but also enhance entrepreneurial spirit throughout the institution and create stronger links with the local community and the entrepreneurial ecosystem.

There are many new models being tested around the world – both inside and outside formal educational systems – which need to be shared more broadly to fuel new and more effective approaches to entrepreneurship education. More must be done to facilitate faculty collaboration, exchanges and research across borders.

V. Catalyse Multistakeholder Partnerships

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. In particular, education should be better linked with practice to ensure that future skills match future jobs. Academia should be encouraged to reach out to the European business community and integrate them into the learning process. Students need to be given the opportunity to experiment and experience entrepreneurship.

Greater awareness and access to role models and success stories (international, national and local) are needed to encourage young people to pursue their potential. The media and new forms of social media should be leveraged to raise awareness as well as facilitate networks and partnerships.

VI. Leverage and Scale Good Practices

While an increasing number of entrepreneurship education programmes exist in Europe today compared to a decade ago, scalability and penetration remain key challenges. In today’s environment, technology plays an increasingly important role in the educational process, both as a delivery channel and a teaching tool.



Not only can technology help reach larger audiences, including those who previously might not have had access to entrepreneurship education, but it can also help in the development of interactive and locally relevant programmes and materials. Technology provides a mechanism for reaching greater economies of scale as well as providing broader sharing of practices.

VII. Strive for Effective Outcomes and Impact

More effective measurement and evaluation of the impact of entrepreneurship education programmes and policies is needed. These should be based on a broadly defined set of outcomes, not only on narrow measures such as the number of start-ups created. Evaluation needs to go beyond short-term results, measuring longer-term impact.



At the same time, there is limited data on entrepreneurship education. For comparable data across Europe, there needs to be agreement on the definition of entrepreneurial competency, the scope of what should be measured, and on the process of data collection. Existing data collection efforts should be coordinated to enable the development of a framework and process for collecting entrepreneurship education indicators.

The World Economic Forum recognizes GEI Steering Board Members Cisco, Deloitte, Edelman, EMC, Intel, Microsoft and SAS Institute for their leadership and stewardship in the development of the European Roundtable on Entrepreneurship Education, and all the GEI Steering Board Members for their many years of unconditional support.

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MENA Roundtable on Entrepreneurship Education Global Education Initiative

Marrakech, Morocco October 2010



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MANIFESTO



Manifesto for Creating Jobs and Economic Growth in the MENA Region through Entrepreneurship and 21st Century Skills

On 24 October 2010, on occasion of the World Economic Forum on the Middle East and North Africa in Marrakech, Morocco, the Steering Board of the World Economic Forum's Global Education Initiative, the MENA Action Group and other leaders from business, government, academia and civil society gathered for a private high-level roundtable on entrepreneurship education. The gap between skills and jobs is widening further in the MENA region and many countries lag behind other countries around the world in terms of competitiveness. The region must invest in developing entrepreneurial and innovative skills to build sustainable economic development, create jobs and generate renewed economic growth. The MENA region needs to equip future generations with the necessary skills for the 21st century. The discussions led to the creation of this manifesto, which is built on four pillars.

I. Transform the Education System by Integrating 21st Century Skills and Entrepreneurship

Educational institutions, from the earliest levels up, need to adopt 21st century methods and tools to develop the appropriate learning environment to encourage creativity, innovation and the ability to think "out of the box" to solve problems. Entrepreneurship enables the development of leadership and life skills and has become increasingly recognized as a key competency.

Entrepreneurship and innovation are driving new ways of learning, living and working. Embedding entrepreneurship and innovation,

cross-disciplinary approaches and interactive teaching methods in education require new models, frameworks and paradigms. Changes in the educational system are needed across all levels and should address the lifelong learning process as well as critical links and interactions between levels (primary, secondary, higher and vocational education).

It is also critical to train, develop and motivate teachers to use interactive teaching methods, leverage international best practices and develop the necessary local content. Entrepreneurs and others with entrepreneurial experience should be integrated into classroom discussions and hands-on projects with students. Entrepreneurs provide great value in the learning process and also serve as role models for students. Engaging them enhances entrepreneurial spirit within the institution overall and creates stronger links with the local community and the entrepreneurial ecosystem. Training programmes outside of formal education play a key role in providing greater access to entrepreneurial training and should be expanded.

There are many new models being tested around the world, both inside and outside of formal educational systems, which should be shared more broadly to fuel new and more effective approaches to entrepreneurship education. More must be done to facilitate student exchanges, faculty collaboration and research across borders.

Suggested Actions

Require entrepreneurship in the curriculum at all levels

- Catalyse change in the education system by requiring the integration of entrepreneurship and 21st century skill development

Empower teachers with the necessary tools, training and incentives

- Develop training programmes and build networks for entrepreneurship educators across the region, leveraging existing international programmes as well as creating new local initiatives

II. Build Policy Commitment to Facilitate the Entrepreneurial Ecosystem

Governments across the MENA region must act now to address the growing skills gap.

This requires a clear and coherent commitment at the highest political levels.

Policies should send a strong signal of support for entrepreneurship and set the strategic framework in which schools and universities can work to implement programmes and activities within their institutions. To do so, greater coordination is necessary across ministries, and action is needed at the national, regional and local levels.

To facilitate an entrepreneurial ecosystem, the appropriate regulatory framework is necessary. Regulations that restrict entrepreneurship, such as bankruptcy laws, should be modified. However, policies and national strategies are not enough. The engagement of stakeholders in the entrepreneurial ecosystem – academia, business, the NGO community, international institutions and foundations – is critical to ensure the development of relevant policies and to assist in the implementation of programmes.



Suggested Action: Create a cross country & sector coordinating body to drive action

- Extend the role and membership of the World Economic Forum MENA Action Group for Entrepreneurship Education and continue the work of the group to drive action and commitment across the region
- Engage policy-makers, create champions and instil urgency for action

III. Leverage and Scale Good Practices through Multistakeholder Partnerships

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. In particular, education should be better linked with practice to ensure that future skills match future jobs. Academia should be encouraged to reach out to the business community and integrate them into the learning process. Students should be given the opportunity to experiment and experience entrepreneurship. Greater awareness and access to role models and success stories (international, national and local) are needed to encourage young people to pursue their potential. The media and new forms of social media should be leveraged to raise awareness as well as facilitate networks and partnerships.

While an increasing number of entrepreneurship education programmes exist in the MENA region today, scalability and

penetration remain key challenges. In today's environment, technology plays an increasingly important role in the educational process, both as a delivery channel and a teaching tool.



Not only can technology help reach larger audiences, including those who previously might not have had access to entrepreneurship education, but it can also help in the development of interactive and locally relevant programmes and materials. Technology provides a mechanism for reaching greater economies of scale as well as providing broader sharing of practices.

Suggested Action: Identify and celebrate good practices

- Identify opportunities to share good practices through the creation of resource guides and online tools
- Celebrate entrepreneurship across the region by leveraging international events (Global Entrepreneurship Week, regional business plan competitions, etc.) and creating local initiatives
- Leverage media (including TV) and technology to provide greater access and awareness

IV. Ensure the Appropriate Metrics and Incentives are in Place

More effective measurement and evaluation of the impact of entrepreneurship education programmes and policies are needed. These should be based not only on inputs but also on outputs and outcomes. Evaluation needs cover both short-term results and longer term impact in both formal and informal education.

At the same time, there is limited data on entrepreneurship education. For comparable data across countries, there should be agreement on the definition of entrepreneurial competency, the scope of what should be measured and agreement on the process of data collection. Existing data collection efforts should be coordinated to enable the development of an agreed upon framework and process for collecting entrepreneurship education indicators.

Suggested Action: Develop an entrepreneurship education scorecard for the MENA Region

- Leverage existing and develop new indicators to provide a benchmarking of developments in countries across the region and create incentives for action

The World Economic Forum recognizes the following GEI Steering Board Members: Abraaj Capital, Cisco, Deloitte, EMC, Intel, Manpower and Microsoft for their leadership and stewardship in the development of the MENA Roundtable on Entrepreneurship Education and all the GEI Steering Board Members for their many years of unconditional support.

For more information, please contact andreas.cox@weforum.org or visit <http://www.weforum.org/en/initiatives/gei>.

Latin America Roundtable on Entrepreneurship Education

Global Education Initiative

Rio de Janeiro, Brazil 26 April 2011



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On 26 April 2011, on the occasion of the World Economic Forum on Latin America in Rio de Janeiro, Brazil, the Steering Board of the World Economic Forum's Global Education Initiative, the Latin America Action Group and other leaders from business, government, academia and civil society gathered for a private, high-level roundtable on entrepreneurship education.

The gap between skills and jobs is widening further in Latin America and many countries in the region lag behind other countries around the world in terms of employability of youth¹. The region must invest in developing entrepreneurial and innovative skills to build sustainable economic development, create jobs and increase competitiveness.

However, this must be accomplished through partnerships, as no single entity or sector will be able to drive the necessary action. The World Economic Forum GEI roundtable discussions in Latin America resulted in the creation of the following manifesto, which is built on six pillars. The participants in the roundtable plan to form an "Action Group" and are committed to pursuing the action items outlined below.

I. Promote Entrepreneurship and Integration into Education

Entrepreneurship is not always viewed positively in Latin America. The first step in building support for entrepreneurship education is therefore to promote entrepreneurship more broadly to change society's perceptions about what it means to be entrepreneurial and to be an entrepreneur. Greater awareness and access to role models and success stories (international, national and local) is needed to encourage young people to pursue their potential. The media and new forms of social media should be leveraged to raise awareness as well as facilitate networks and partnerships.

Entrepreneurship and innovation are driving new ways of learning, living and working. Embedding entrepreneurship and innovation, cross-disciplinary approaches and interactive teaching methods in education requires new models, frameworks and paradigms. Changes in the educational system are needed across all levels and should address the lifelong learning process as well as critical links and interactions between levels (primary, secondary, higher and vocational education).

Entrepreneurs and others with entrepreneurial experience should be integrated into classroom discussions and hands-on projects with students.

Entrepreneurs provide great value in the learning process and also serve as role models for students. Engaging them also enhances entrepreneurial spirit within the institution overall and creates stronger links with the local community and the entrepreneurial ecosystem. Training programmes outside formal education play a key role in providing greater access to entrepreneurial training and should be expanded.

Suggested Actions

- Raise awareness and interest through entrepreneurship campaigns**

Link into existing movements such as Global Entrepreneurship Week (www.unleashingideas.org) and encourage the participation of all countries across Latin America as well as more partners within each country. Partners should include schools, NGOs, government agencies, companies, entrepreneurs, etc.

- Leverage the media to provide stories about successful entrepreneurs**

Print, online and social media can play a critical role in shaping society's views on entrepreneurship. Stories about entrepreneurs can provide role models for youth and generate greater interest in entrepreneurship. TV plays a particularly important role – partnerships should be created to further develop quality entrepreneurship programmes to reach broader audiences.

- Integrate entrepreneurs into the classroom**

Invite entrepreneurs to participate in classroom discussions and provide opportunities for students to visit entrepreneurial firms, potentially engaging in projects with these firms.

II. Raise Awareness and Build Political Commitment for Entrepreneurship Education

Governments across Latin America must act now to address the growing skills gap. This requires a clear, coherent and continuous commitment at the highest political levels. Policies should send a strong signal of support for entrepreneurship and also set the strategic framework in which schools and universities can work to implement programmes and activities within their institutions in partnership. To do so, greater coordination is necessary across ministries and action is needed at the national, regional and local levels. It is also important to review existing policies to identify gaps and overlaps as well as to evaluate what has worked and what has not.

¹ World Economic Forum Skills & Talent Mobility Initiative research conducted by BCG.

However, policies and national strategies are not enough. The engagement of stakeholders in the entrepreneurial ecosystem – academia, business, the NGO community, international institutions and foundations – is critical to ensure the development of relevant policies and to assist in the implementation of programmes.

Suggested Actions

- Build upon existing work on policies and guidelines**

The European Commission, ILO, UNESCO and several other UN bodies have recently conducted work on entrepreneurship education policies. Instead of starting from scratch, this work should be built upon to develop and disseminate a set of customized guidelines relevant for countries in Latin America.

- Promote entrepreneurship education policy in countries across Latin America**

Hold roundtables in selected countries with the heads of government and senior officials from ministries, such as enterprise, education and employment, to build high-level and cross-ministry support.

- Participate in high-level policy events**

Latin America Action Group members, as a group as well as individually, should participate in high-level policy events across Latin America to promote entrepreneurship education.

III. Leverage and Scale Good Practices through Multistakeholder Partnerships

Entrepreneurship thrives in ecosystems in which multiple stakeholders play key roles. In particular, education should be better linked with practice to ensure that future skills match future jobs. Academia should be encouraged to reach out to the business community and integrate it into the learning process. Students need to be given the opportunity to experiment and experience entrepreneurship.

While an increasing number of entrepreneurship education programmes exist in Latin America today, scalability and penetration remain key challenges. In today's environment, technology plays an increasingly important role in the educational process, as both a delivery channel and a teaching tool. Not only can technology help reach larger audiences, including those who previously might not have had access to entrepreneurship education, but it can also help in the development of interactive and locally relevant programmes and materials. Technology provides a mechanism for reaching greater economies of scale as well as providing broader sharing of practices.

Suggested Actions

- Identify and share good practices**

Identify good practices through a process that screens and evaluates existing practices from the region and around the world. Create resource guides and online tools to share these practices.

- Scale up existing good practices**

Build multistakeholder partnerships to scale up existing good practices. Leverage media (including TV) and technology to provide greater access and awareness.

IV. Ensure the Appropriate Metrics and Incentives are in Place

More effective measurement and evaluation of the impact of entrepreneurship education programmes and policies is needed. These should be based not only on inputs but also on outputs and outcomes, including both cognitive and non-cognitive data. Evaluation needs cover both short-term results and longer-term impact in both formal and informal education. Data is critical for building evidence-based policies and increasing the chance that governments will adopt and maintain policies.

Currently, there is limited data on entrepreneurship education. For comparable data across countries, there needs to be agreement on the definition of entrepreneurial competency, the scope of what should be measured and agreement on the process of data collection. Existing data collection efforts should be coordinated to enable the development of an agreed upon framework and process for collecting entrepreneurship education indicators. At the same time, differences in the culture and business environments between countries must be taken into account.

Suggested Actions

- Develop entrepreneurship education metrics and indicators** Leverage existing and develop new indicators to provide a benchmarking of developments in countries across the region and create incentives for action.

V. Train, Develop and Motivate Teachers

It is critical to train, develop and motivate educators to teach entrepreneurship. To teach entrepreneurship education most effectively, teachers need to learn new skills such as utilizing interactive teaching methods and developing project-based work. This is a challenge in a region in which there is a lack of the necessary resources for education and in which the teaching profession itself is not given the proper status and recognition.

There are many new models being tested around the world, both inside and outside formal educational systems, which need to be shared more broadly to fuel new and more effective approaches to entrepreneurship education. While international materials and programme packages can be leveraged, they need to be tailored for the local environment and include local examples.

Suggested Actions

- Share global best practices in teacher training and adopt international standards**

Leverage existing international standards for teacher training (OECD, UNESCO, etc.) and identify best practices on a global basis, bring them to Latin America and adapt as appropriate.

- Develop training programmes for entrepreneurship educators** Develop training programmes and build networks for entrepreneurship educators across the region, leveraging existing international programmes as well as creating new local initiatives.

VI. Launch Pilot Projects

The participants in the roundtable felt strongly that words were not enough – there must be pilot projects launched to test and further develop the ideas discussed in the meeting. In addition to the action items above, the group committed to the following actions.

Suggested Actions

- Develop an online platform for the sharing of entrepreneurship education materials in Latin America** UNESCO and the Monterrey Institute of Technology and Higher Education (ITESM) have agreed to partner to develop a Web-based platform on entrepreneurship education for Latin America, which the Latin America Action Group agreed to populate with the relevant information.

- Launch joint partnerships between cities and regions in Latin America**

The Minister of Buenos Aires and the Minister of Sao Paulo have agreed to collaborate on a teacher training initiative over the coming year.

- Join forces on existing initiatives**

A number of GEI Steering Board members and other participants in the roundtable identified several overlapping initiatives and have made a commitment to partner on these activities. They include: tournaments for teachers, students and start-ups, and business case competitions.

The World Economic Forum recognizes the following GEI Steering Board Members: Cisco, Deloitte, EMC, Hewlett-Packard Company, Intel, Lenovo, ManpowerGroup, McGrawHill and Microsoft for their leadership and stewardship in the development of the Latin America Roundtable on Entrepreneurship Education and all the GEI Steering Board Members for their many years of unconditional support.

For more information, please contact andreas.cox@weforum.org or visit <http://www.weforum.org/issues/education/index.html>

List of Organizations and Programmes Referenced in Workstream Reports

NGOs

Aflatoun, Child Social & Financial Education www.aflatoun.org	Netherlands	The focus of Aflatoun's programme is on providing life skills rooted in social and financial education to children aged 6-14. The Aflatoun teaching methodology encourages "learning by doing". The network of partners from the social, corporate and governmental sectors work together to ensure that the Aflatoun programme is implemented and supported at a local level in both schools and non-formal educational settings.
AMD Foundation www.amd.com	USA	AMD Changing the Game, an initiative of the foundation, is AMD's global signature education programme designed to take gaming beyond entertainment and inspire youth to learn. The programme teaches kids how to create their own video games on subjects such as energy and the environment, and other important social issues. By creating games, students learn science, technology, engineering and math (STEM) skills as well as problem solving, critical thinking, language skills and teamwork. They are so engaged in the process that they do not realize how much they are learning.
Bright China Foundation www.brightchinagroup.com/en/	China	The Bright China Foundation focuses on education and economic development, taking a private sector approach to benefit the public good. The foundation runs many programmes, including a very prominent youth entrepreneurship education initiative.
Canal Futura www.futura.org.br	Brazil	Canal Futura is an attractive and educational TV social project of communication. It is built on partnerships and is a private initiative of public interest. Futura broadcasts valuable and useful information to the population 24 hours per day, every day. It reaches children, teenagers, families and workers. It talks about health, work, youth, education, environment and citizenship. Futura is also an educational source of knowledge and has as partners TVs from universities that broadcast the channel through a local cable or also an inside channel, which reaches 10 million people all over Brazil. Canal Futura has partnerships with international organizations such as UNICEF, UNESCO and ICAF (International Child Art Foundation).
Education for Employment Foundation www.efefoundation.org	Network of local organizations	The Education for Employment Foundation (EFE) was founded on the belief that, when young people have satisfying jobs and the hope of building a future, they help lay the foundation for prosperous economies and stable societies. EFE's mission is to improve the futures of young people in the Middle East and North Africa by giving them the tools to build livelihoods for themselves. EFE operates on three levels: education, employment and alumni support.
Endeavor www.endeavor.org	USA (Global)	Endeavor selects and supports a group of extraordinary emerging market entrepreneurs who have the potential to transform industries, communities and even countries. Once selected, entrepreneurs are provided with customized services from a volunteer network of 1,000+ global and local business leaders ("VentureCorps") who serve as mentors, advisers, connectors, investors and role models.
European Confederation of Junior Enterprises www.jadenet.org	Belgium (Europe)	JADE is an international umbrella organization of enterprises managed by students. Members, called Junior Entrepreneurs, are students who want to get practical experience by developing their own professional projects and by offering different consulting services, experiencing unique learning opportunities in the real business world. Programmes include building start-ups, organizing workshops and conferences, organizing assessment centres, quality management projects, developing business plans, building up marketing strategies and doing marketing research.

European Forum for Entrepreneurship Research www.efer.eu	Belgium (Global)	EFER fosters and promotes research and teaching in the field of entrepreneurship at institutions of higher education across Western and Eastern Europe. EFER initiated "Teach the Teachers" programmes to train European entrepreneurship faculty. These were run in collaboration with Harvard Business School for several years and later supported by the European Commission. EFER works with an extensive network of universities, professors and practitioners across Europe and around the world.
European Training Foundation www.etf.europa.eu	Italy (See Europe & MENA)	ETF is a specialized EU agency supporting 29 partner countries on human capital development. ETF's mission is to support transition and middle-income countries in harnessing their human capital potential, reform of education, training and labour market systems in the context of the EU's external relations policy. ETF's initiatives include development of entrepreneurial policy indicators, country assessments, policy support, good practice identification and support and development of thematic entrepreneurship expertise networks.
Global Entrepreneurship Week www.unleashingideas.org	USA (Global)	Launched by the Kauffman Foundation and Enterprise UK in 2008, this initiative is now in over 113 countries. For one week in November each year, millions of young people around the world join a growing movement of entrepreneurial people, to generate new ideas and to seek better ways of doing things. Countries across six continents come together to celebrate Global Entrepreneurship Week, an initiative to inspire young people to embrace innovation, imagination and creativity.
Injaz al-Arab www.injazalarab.org	Jordan (MENA, but part of JA Worldwide)	INJAZ al-Arab harnesses the mentorship of Arab business leaders to help inspire a culture of entrepreneurship and business innovation among Arab youth. Operating in 13 countries across the Middle East and North Africa region, INJAZ al-Arab is a confederation of national operations collaborating with corporate volunteers and ministries of education to provide experiential education and training to Arab youth in work readiness, financial literacy and entrepreneurship.
JA Worldwide (Junior Achievement) www.ja.org	USA (Global)	JA Worldwide (Junior Achievement) is a global organization providing entrepreneurship education programmes for students from ages 6 to 25. About 9.3 million students were enrolled in Junior Achievement programmes in 2008 across 120 countries (six regions). Local Junior Achievement offices work directly with educators in the school system and with volunteers from business and the community. Junior achievement programmes are built around three pillars: financial literacy, skills for employability and entrepreneurship. Junior Achievement is supported by businesses, foundations, governments, aid agencies and individuals.
Junior Achievement Young Enterprise Europe www.ja-ye.org	Belgium (Europe)	The mission of JAYE is to use hands-on experiences to help young people understand the economics of life. In partnership with business and educators, JAYE brings the real world to students and opens their minds to their potential. There are more than 10 different programmes for children between 6 and 12, 13 and 15 and for 16+; there are also graduate programmes. The graduate programmes give post-secondary students the opportunity to experience the exhilaration of running their own company, giving them an insight into how their talents could be used to set up in business for themselves.
National Consortium of University Entrepreneurs www.nacue.com	United Kingdom (Global)	NACUE is a fast-paced grassroots organization that stimulates university enterprise by supporting, connecting and representing enterprise societies, enterprising students and student entrepreneurs in universities across the United Kingdom. Programmes include NACUE Leaders Training Conference, National Varsity Pitch Competition, National Student Enterprise Conference, NACUE Enterprise Bootcamps and Ventures Academy.

National Council for Graduate Entrepreneurship www.ncge.com	United Kingdom (Global)	NCGE was formed with the aim of raising the profile of entrepreneurship and the option of starting a business as a career choice among students, graduates and staff. NCGE seeks to influence, inspire and increase the capacity and capability of higher education institutions to support student and graduate aspiration towards self-employment or business start-up. Programmes include University Enterprise Networks Entrepreneurial University of the Year Award, Entrepreneurial University Leadership Programme and the International Entrepreneurship Educators Programme.
National Enterprise Academy www.thenea.org.uk	United Kingdom (Global)	The National Enterprise Academy aims to become an internationally recognized centre of excellence for enterprise and entrepreneurship. NEA combines "learning by doing" with classroom learning. More than half of the NEA curriculum focuses on putting the coursework into practice – learning by doing. The other part of the NEA curriculum is delivered in a classroom setting by educationally and vocationally qualified tutors, alongside business and enterprise managers.
Network for Teaching Entrepreneurship www.nfte.com	USA (Global)	NFTE helps young people from low-income communities build skills and unlock their entrepreneurial creativity. NFTE's programmes teach entrepreneurship using its exciting, experiential curriculum. There are versions for middle school, high school and young adult students, with corresponding reading levels and complexity. In a NFTE programme, students learn business concepts, practice skills including negotiation and pricing, and work on the completion of business plans for their own individual businesses.
Queen Rania Center for Entrepreneurship www.qrce.org	Jordan	QRCE is a non-profit organization established in 2004 to help develop technology entrepreneurship in Jordan. The Center is part of El Hassan Science City and plays the role of a National Center of Excellence for Entrepreneurship. Over the last five years, the Center has organized many activities that benefited thousands of entrepreneurs, professionals and students in Jordan. Programmes include the Queen Rania National Entrepreneurship Competition (QRNEC), Made in Jordan Competition (MIJC), DART (student body of QRCE), Trizmatic (a programme for systematic innovation that offers training and consulting services in business and technology) and Technology Commercialization Program (TCP).
Silatech www.silatech.com	Qatar	Silatech is an innovative social enterprise created to meet the urgent need to generate new jobs and opportunities for young people, starting first in the Arab world where the challenge is at its most severe globally. As a not-for-profit social enterprise, Silatech has created novel connections with the private sector, creating a commercial incentive for global businesses to address the challenge of youth employment while also being able to explore new markets. Programmes include Youth Microfinance Initiative, Construction Skills Training and Placement Initiative and the Silatech Index: Voices of Young Arabs.
Students in Free Enterprise (SIFE) www.sife.org	USA (Global)	SIFE is an international non-profit organization that works with leaders in business and higher education to mobilize university students to make a difference in their communities while developing the skills to become socially responsible business leaders. Programmes include community outreach projects, leadership and career opportunities, regional and national competitions, and prestigious international events such as the World Cup.
Youth Business International www.youthbusiness.org	United Kingdom (Global)	YBI works with governments and multilateral organizations to promote youth entrepreneurship. YBI was one of the founding partners of the UN's Youth Employment Network. YBI acts as an advocate for the network and makes presentations to local and national governments, encouraging them to provide suitable educational opportunities to promote entrepreneurship.

International Organizations

European Commission http://ec.europa.eu	Brussels (Europe)	The European Commission (EC) is the executive body of the European Union. Entrepreneurship education is already high on the agenda in most EU member states. A wide variety of programmes and activities exist across Europe. There is still a need for promoting these initiatives systematically. The EC is committed to promoting entrepreneurship through education at all levels. They launched several surveys, with the aim of analysing the state of the teaching of entrepreneurship.
International Labour Organization www.ilo.org	Switzerland (Global)	The ILO is devoted to advancing opportunities for people to obtain decent and productive work in conditions of freedom, equity, security and human dignity. Its main aims are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues. Programmes include Training through the International Training Centre of ILO. Know About Business (KAB) is a training programme for teachers in vocational education, secondary education and higher education.
UNIDO www.unido.org	Austria (Global)	UNIDO is a specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. Its mandate is to foster and accelerate sustainable industrial development in developing countries and economies in transition, and work towards improving living conditions in the world's poorest countries by drawing on its combined global resources and expertise. Programmes include the Entrepreneurship Curriculum Programme, Hewlett-Packard's Learning Initiative for Entrepreneurs (HP LIFE) Programme and Enterprise Development and Investment Promotion (EDIP) Programme.
United Nations Educational, Scientific and Cultural Organization www.unesco.org	France (Global)	UNESCO works to create conditions for dialogue among civilizations, cultures and people based on respect for commonly shared values. UNESCO's unique competencies in education, sciences, culture and communication and information contribute to the realization of those goals. One of UNESCO's main objectives is to attain quality education for all and lifelong learning. They lead the global Education for All movement (EFA), which aims to meet the learning needs of all children, youth and adults by 2015. Several initiatives were taken by UNESCO to promote EE as part of quality education.

Academia

American University of Cairo, School of Business www.aucegypt.edu	Egypt	The School of Business, at the American University in Cairo, strives to create an environment that fosters the development of principled, innovative business leaders and entrepreneurs who can make a difference. Related programmes include Entrepreneurs Society, Women's Entrepreneurship and Leadership Program, Entrepreneurship and Innovation Program, El-Khazindar Business Research and Case Center and Egyptian Bio-digesters Company.
Australian Graduate School of Entrepreneurship (AGSE), Swinburne University of Technology www.swinburne.edu.au/business/agse/	Australia	The Australian Graduate School of Entrepreneurship (AGSE) at Swinburne University of Technology is a leading Australian graduate school dedicated to educating and building future entrepreneurial leaders. The school offers a blend of different postgraduate-level entrepreneurship programmes and entrepreneurship research at different local and offshore campuses. Today, the school's focus on entrepreneurship is institutionally sustained as a part of the university's new Faculty of Business and Enterprise developed in 2005.

Bergische University of Wuppertal (BUW) www.uni-wuppertal.de	Germany	The goals of the University of Wuppertal (UW), founded in 1972, are academic excellence in its individual disciplines and the consistent development of the interface between these disciplines and the world of practical experience – in other words, the transfer of knowledge and technological know-how. The university's reputation as a force in business and industry goes beyond its role in regional economics. Its business start-up and marketing programme provides young entrepreneurs with a first-class springboard. The Institute for Entrepreneurship and Innovations Research (IENTIRE) is an interdisciplinary institution at the University of Wuppertal.
Cambridge University www.cam.ac.uk	United Kingdom	Cambridge University offers entrepreneurship courses at undergraduate and postgraduate levels across a wide range of science and engineering degree programmes. The curriculum comprises more than 40 courses taught by both faculty and real entrepreneurs, who encourage solving of real-life business problems and action-based learning.
Jönköping University www.jibs.se	Sweden	The Jönköping University has a distinct and internationally recognized focus on entrepreneurship research and teaching, and high-impact activities in entrepreneurial management and enterprise policy in cooperation with business professionals and policy-makers, e.g. to foster the international business creation capacity of Swedish SMEs. The dedication to entrepreneurship has led to an integrated portfolio of research and education themes on entrepreneurship, innovation and small and medium-sized enterprises.
Leon Kozminski Academy of Entrepreneurship and Management www.kozminski.edu.pl/index.php/en	Poland	The Leon Kozminski Academy of Entrepreneurship and Management's mission is to teach business, management and business law, combining world-class research, practice and academia in the heart of Europe. It is part of the higher education system in Poland, which, as a transition economy, has little established infrastructure for entrepreneurship education at individual universities. The academy programme tries to fill this gap, establishing a nation-wide networking and infrastructure platform; in particular, the platform provides packages for introducing entrepreneurship modules at Polish higher education institutions for science and engineering.
National University of Singapore (NUS) www.nus.edu.sg	Singapore	NUS is Singapore's largest public university and a key element within the overall education and innovation strategy of the city-state. The mission of the NUS Entrepreneurship Centre (NEC) is to promote and support entrepreneurial learning among the NUS community; nurture start-ups by NUS professors, students and alumni; and conduct research to advance knowledge of the policy and practice of technology venturing in Singapore and beyond.
Project Artemis, Thunderbird School of Global Management www.thunderbird.edu/projectartemis	USA	Managed by the Thunderbird for Good initiative, <i>Project Artemis</i> strives to build the entrepreneurial skills of Afghan business women through a unique business-skills training programme, in particular a two week business and entrepreneurial decision-making training; mentoring by successful women entrepreneurs from the US; and continuous business coaching and support. In 2008, the Artemis project joined the <i>10,000 Women</i> initiative started by Goldman Sachs. The <i>10,000 Women</i> initiative is global to increase the number of previously underserved women receiving a business and management education, and to improve the quality and capacity of business and management education around the world.
Stanford University www.stanford.edu	USA	Stanford University offers a wide range of curricular and extra-curricular activities focusing on entrepreneurship and technology transfer as well as on knowledge sharing with established high-tech companies. Stanford's curricula directed at high-growth entrepreneurship are delivered by numerous institutions in different departments, e.g. by the Stanford Technology Ventures Program (STVP) in the School of Engineering and the Centre for Entrepreneurship Studies (CES) within the Graduate School of Business.

<p>Strossmayer University of Osijek</p> <p>www.unios.hr</p>	Croatia	<p>Strossmayer University offers entrepreneurship courses through the department of economics; the heart of the university's efforts to institutionalize entrepreneurship on a sustainable basis is a UNESCO Chair in Entrepreneurship and the International Centre for Entrepreneurial Studies (ICES), which was established with high-profile international support from leading Anglo-American entrepreneurship scholars.</p> <p>Beyond the basic entrepreneurship education infrastructure, the university has moved on to improve specific advanced aspects such as developing an adequate case pool for active learning of entrepreneurship.</p>
<p>Technical University of Munich (TUM)</p> <p>www.tum.de</p>	Germany	<p>TUM is a high-profile research and teaching university with particular strengths in science and engineering, which has embraced its vision – TUM, the Entrepreneurial University. An important nucleus of TUM's entrepreneurial activities is the KfW-Chair in Entrepreneurial Finance that has been endowed by the KfW-Bankengruppe, a German public law banking institution, which (among other activities) supports new business formation and innovation projects.</p>
<p>Tecnológico de Monterrey</p> <p>www.itesm.edu</p>	Mexico	<p>The institution was founded in 1943 thanks to the vision and commitment of Eugenio Garza Sada and a group of businessmen who established an association called Enseñanza e Investigacion Superior AC, which on 6 September of that year created the Tec de Monterrey, an institution of higher education that began with 350 students in an old house in downtown Monterrey, Nuevo Leon, Mexico.</p> <p>After six decades, it has evolved into a university system that integrates four institutions: Tec de Monterrey, Universidad Tec Milenio, Tec Virtual University and Tec Health. Entrepreneurship education-related programmes include technology parks, business incubators, business accelerators and the Institute for Sustainable Social Development.</p>
<p>Umsobomvu Youth Fund & Maths Centre for Professional Teachers</p>	South Africa	<p>The South African government established the Umsobomvu Youth Fund in 2001 to promote entrepreneurship, job creation and skills development for citizens aged 18 to 35. Umsobomvu had the foresight to include entrepreneurship in the forefront of its many offerings for youth. Umsobomvu finances many programmes, including a youth entrepreneurship initiative implemented by the South African Maths Centre for Professional Teachers, which in turn licenses materials and systems from the National Foundation for Teaching Entrepreneurship.</p>
<p>University of Cape Town (UCT)</p> <p>www.gsb.uct.ac.za</p>	South Africa	<p>The Entrepreneurship Education Initiative at UCT started in 2001 with the founding of the Centre for Innovation and Entrepreneurship (CIE); the centre is responsible for the South African Global Entrepreneurship Monitor effort. CIE serves three interrelated tasks: research into entrepreneurship and small business, development of course material and new business creation/development. The entrepreneurship efforts at UCT particularly developed around the task of educating both graduate students and school leavers, offering local and nationwide course programmes.</p>

Business

<p>Abraaj Capital</p> <p>www.abraaj.com</p>	United Arab Emirates (Global)
<p>Cisco</p> <p>www.cisco.com</p>	USA (Global)
<p>Deloitte Touche Tohmatsu Limited</p> <p>www.deloitte.com/deloitte21</p>	USA (Global)

EMC Corporation	USA (Global)
<i>www.emc.com</i>	
Hewlett-Packard Company	USA (Global)
<i>www.hp.com</i>	
Intel Corporation	USA (Global)
<i>www.intel.com</i>	
Lenovo	USA (Global)
<i>www.lenovo.com</i>	
ManpowerGroup	USA (Global)
<i>www.manpower.com</i>	
Microsoft	USA (Global)
<i>www.microsoft.com</i>	
The McGraw-Hill Companies	USA (Global)
<i>www.mcgraw-hill.com</i>	

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All reports developed by the World Economic Forum Entrepreneurship Education workstream are downloadable at the following links:

Educating the Next Wave of Entrepreneurs – Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century

See http://www3.weforum.org/docs/IP/AM11/EE_Full_Report_Final.pdf

Educating the Next Wave of Entrepreneurs – Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century – Executive Summary

See http://www3.weforum.org/docs/WEF_GEI_EducatingNextEntrepreneurs_ExecutiveSummary_2009.pdf

Global Education Initiative – European Roundtable on Entrepreneurship Education

See http://www3.weforum.org/docs/WEF_GEI_EuropeanRoundtable_Report_2010.pdf

Global Education Initiative – MENA Roundtable on Entrepreneurship Education 2010

See http://www3.weforum.org/docs/WEF_GEI_MENAEntrepreneurshipEducation_Report_2010.pdf

Global Education Initiative – LATAM Roundtable on Entrepreneurship Education 2011

See http://www3.weforum.org/docs/WEF_GEI_LAEntrepreneurshipEducation_Report_2011.pdf

For more information on the Global Education Initiative, see <http://www.weforum.org/issues/education/index.html#>.



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