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EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

Implementing the Community Lisbon Programme:

Fostering entrepreneurial mindsets through education and learning

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1. INTRODUCTION

In February 2005, the Commission proposed a new start for the Lisbon Strategy focusing the European Union's efforts on two principal tasks – delivering stronger, lasting growth and providing more and better jobs. The new **Partnership for Growth and Jobs** stresses the importance of promoting a more entrepreneurial culture and of creating a supportive environment for SMEs.

The capacity of an economy to successfully compete and grow depends on balancing the stock of enterprises through encouraging more start-ups and managing business transfer. Research suggests that there is a positive correlation between **entrepreneurship and economic growth**, particularly in high-income countries¹, although GDP growth is influenced by many other factors. Sustainable growth based on innovation and excellence requires an increasing number of start-ups, which are likely to provide more and better jobs. Countries exhibiting a greater increase in entrepreneurship rates tend to exhibit greater subsequent decreases in unemployment rates². Moreover, social systems are increasingly under pressure due to the shrinking labour force. If Europe wants to successfully maintain its social model, it needs more economic growth, **more new firms, more entrepreneurs willing to embark in innovative ventures, and more high-growth SMEs**.

Entrepreneurship can also contribute to social cohesion for less-developed regions and to putting unemployed or disadvantaged people into work. Moreover, it can contribute to unlocking the entrepreneurial potential of **women**, which has yet to be further exploited.

There is a need to create a more **favourable societal climate** for entrepreneurship, based on an integrated policy with a view to not only changing the mindset but also improving the skills of Europeans and removing obstacles to the start-up, transfer and growth of businesses. Previous Commission documents addressed the regulatory, fiscal and financial obstacles³. In February 2004, the Commission adopted an **Entrepreneurship Action Plan**⁴, which suggested horizontal measures to create a supportive framework for entrepreneurship policy. In November 2005 an integrated **policy** on SMEs was launched⁵.

While various factors influence entrepreneurship, cultural aspects need to be taken into account. Europeans are reluctant to take up opportunities for self-employment and entrepreneurial activities⁶. Research suggests that **cultural support** (e.g. through education programmes, promotional campaigns, etc.) is positively linked with the amount of entrepreneurial activity in the EU.⁷

Promoting entrepreneurship among young people is a key element of the **European Youth Pact** adopted by the European Council in March 2005.

¹ Global Entrepreneurship Monitor 2004.

² D. Audretsch, *Entrepreneurship: A survey of the literature*, October 2002.

³ See also: http://europa.eu.int/comm/enterprise/entrepreneurship/index_en.htm

⁴ The European Agenda for Entrepreneurship, European Commission, COM (2004) 70 final, 11.02.2004.

⁵ Modern SME Policy for Growth and Employment, COM (2005)551 final, 10.11.2005.

⁶ Flash Eurobarometer 160 'Entrepreneurship', June 2004.

⁷ Global Entrepreneurship Monitor 2004.

1.1. Entrepreneurship is a key competence for growth, employment and personal fulfilment.

Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity⁸.

Developing **generic attributes and skills** that are the foundations of entrepreneurship is complemented by imparting **more specific knowledge about business** according to the level of education. Emphasising the notion of “responsible entrepreneurship” will help to make an entrepreneurial career a more attractive proposition.

While not all youngsters who develop entrepreneurial competence will become entrepreneurs, some evidence shows that around 20% of participants in mini-company activities in secondary school go on to **create their own company after their studies**⁹. Education in entrepreneurship increases the chances of start-ups and self-employment and enhances individuals' economic reward and satisfaction. Moreover, any dynamic SME that wants to grow will benefit from young people with entrepreneurial mindsets and skills.

However, the benefits of entrepreneurship education are not limited to more start-ups, innovative ventures and new jobs created. **Entrepreneurship is a key competence for all**, helping young people to be more creative and self-confident in whatever they undertake and to act in a socially responsible way.

The **Education & Training 2010 Work Programme** included entrepreneurship in a reference framework of eight key competences for **lifelong learning**, necessary for personal fulfilment, social inclusion, active citizenship and employability. This forms the basis for a recent Commission proposal for a Recommendation of the European Parliament and the Council¹⁰.

Traditionally, formal education in Europe has not been conducive to entrepreneurship and self-employment. However, as attitudes and cultural references take shape at an early age, **the education systems can greatly contribute to successfully addressing the entrepreneurial challenge within the EU**.

Therefore, while recognising that the entrepreneurship competence should be acquired throughout **lifelong learning**, this Communication focuses on education **from primary school to university**, including also secondary level **vocational** education (initial vocational training) and **technical institutions** of tertiary level.

⁸ Commission proposal for a Recommendation on Key Competences for Lifelong Learning COM(2005)548 final

⁹ Mini-companies in Secondary Education, Best Procedure Project: Final Report of the Expert Group, September 2005.

¹⁰ Commission proposal for a Recommendation on Key Competences for Lifelong Learning

Although numerous initiatives on entrepreneurship education are under way, they are not always part of a coherent framework. Based on evidence acquired under the Community MAP programme¹¹, **this Communication aims to support Member States in developing a more systematic strategy for entrepreneurship education.** Best practice can be found in Europe. The challenge lies in spreading further the existing positive examples.

2. ENTREPRENEURSHIP IN SCHOOL EDUCATION

2.1. Entrepreneurship in framework curricula for schools¹²

- **Including explicit objectives in curricula, together with guidelines for putting them into practice, provides a more solid basis for entrepreneurship education.**

Particularly in secondary education, there are subjects that can be used – at the initiative of schools and teachers – for entrepreneurship learning. Very often, however, such learning takes place through extra-curricular activities.

Some countries **revised, or are in the process of revising, the national curriculum** in order to recognise the entrepreneurial competence. While only in a few cases reforms addressed consistently different levels and types of education, there are positive examples worth highlighting¹³.

In **Poland**, “Basics of Enterprise” is a compulsory subject in all comprehensive secondary and vocational schools. Objectives include developing entrepreneurial attitudes and learning how to start a business.

Entrepreneurship and self-employment as objectives of learning are found more frequently in **vocational secondary education.**

In **Austria**, entrepreneurship is part of the curriculum of secondary level technical and vocational education, for example in the form of students running a fictitious firm.

Entrepreneurship competence is developed in **both formal and non-formal** settings (e.g. youth work and various forms of participation in society). Tools for the recognition and validation of entrepreneurship-related skills acquired in non-formal learning should be further developed.

¹¹ Council Decision (2000/819/EC) of 20 December 2000 on a multiannual programme for enterprise and entrepreneurship, and in particular for SMEs (2000/819/EC).

¹² Framework curricula for school education can be a national or a regional responsibility. Therefore, the ideas presented here should be adapted to countries’ contexts.

¹³ For instance, in Spain, Ireland, Poland, Finland and the UK, but also in Norway. MAP project Education for Entrepreneurship, Final Report March 2004, and 2005 Report on the Implementation of the European Charter for Small Enterprises.

2.2. Entrepreneurship in primary education (pupils below the age of 14)¹⁴

- **Awareness should be raised of the benefits of basic entrepreneurship learning to society at large and to learners themselves, even at the early stages of education.**

As for all competences leading to better management of one's own life, the foundations are laid in the early years of education. At primary level, nurturing qualities such as creativity and a spirit of initiative helps develop entrepreneurial attitudes. This is best done through active learning based on children's natural curiosity. In addition, learning about society should also include **early knowledge** of and **contact** with the world of work and business, and an understanding of the role of entrepreneurs in the community.

In a number of Member States, curricula already encourage schools to guide children towards taking initiative and responsibility. However, examples of more explicit entrepreneurship education are few. In general terms, **coherent initiatives or programmes led by education authorities are still rare in primary education**; activities are often led by **external actors**, such as non-profit organisations supported by the private sector. Nonetheless, there are a number of **good practices that should be disseminated** to public authorities, schools, teachers and parents.

In **Luxembourg**, the sixth-year (11/12 year-old pupils) French-language programme has a section devoted to starting up a business, based on the strip cartoon "*Boule and Bill set up a business*", and this is used in all primary schools. The cartoon is also used in the mathematics programme for introducing basic financial analysis.

Methods of promoting a more open mindset towards entrepreneurship include working on projects, role games, simple case studies and visits to local enterprises. These are activities that support a number of other subjects, and the motivation of those who learn best by doing. Especially at later stages of primary education, entrepreneurship-related programmes can successfully combine **creativity, innovation and a simple concept of business** (e.g. pupils selling products in school markets, etc.).

The "**Young Inventors Competition**" is a programme run in primary and lower secondary schools in several countries¹⁵ that is aimed at children from 6 to 16 years of age. It aims to encourage students' creativity, to develop their ideas and enter them into a competition. Winners receive prizes for designs and inventions.

¹⁴ 'Primary education' refers to level 1 in UNESCO's ISCED 1977 classification. It should be borne in mind that the definition of primary and secondary education differs significantly between EU Member States.

¹⁵ For instance in Finland, the UK, Iceland and Norway.

2.3. Entrepreneurship in secondary education (from the age of 14)¹⁶

- **Secondary education should raise students' awareness of self-employment and entrepreneurship as options for their future career.**
- **Entrepreneurial mindsets and skills can best be promoted through learning by doing and experiencing entrepreneurship in practice, by means of practical projects and activities.**

In most European countries, **curricula** have broad objectives and include subjects that would allow learning about entrepreneurship (for instance, social and economic studies, geography, etc.). However, implementation often relies on the initiative of schools and teachers and the support of the local business community. **In a few Member States**, practical experience of entrepreneurship is embedded into the established courses.

In **Ireland**, under the established curriculum, programmes like the *Transition Year*, the *Leaving Certificate Vocational Programme* and the *Leaving Certificate Applied* offer students the opportunity to experience entrepreneurship.

Programmes can have a specific focus on learning about business in practice, for instance by means of students running mini-companies.

The objective of **mini-companies run by students at school** is that of developing a real economic activity on a small scale, or of simulating the way companies work in a realistic way. Students learn how to work in a team and develop self-confidence. It is estimated that more than 200 000 students every year participate in these programmes in the EU 25 and Norway¹⁷.

Within **vocational secondary education (initial vocational training)**, specific training on how to start a company can be particularly effective, as students are close to entering working life and self-employment may be a valuable option for them. However, with exceptions in some countries (e.g. where there is a well developed apprenticeship system), a real focus on entrepreneurship is missing in most cases, since the main task is seen as being to train skilled workers.

In the **German Vocational Training System** (the so-called « Dual System »), where training takes place both in school and in a firm, in the “Master Phase” young people are taught how to set up their own company. Such training aims not only at the acquisition of the necessary management competences, but also at fostering the entrepreneurial attitudes and skills of apprentices.

¹⁶ In ISCED, lower secondary education is level 2, while upper secondary level, which starts after compulsory education, is level 3.

¹⁷ Mini-companies in Secondary Education, Best Procedure Project: Final Report of the Expert Group, September 2005.

There is a perception¹⁸ that secondary school curricula **do not provide sufficient motivation to teachers and schools** to develop entrepreneurship education. It is therefore crucial to offer them **support and incentives**.

2.4. Measures to support schools and teachers

- **Schools should be given support and incentives to encourage take-up of entrepreneurship activities and programmes, as many concrete examples of how to do it exist already.**
- **Public authorities should take the initiative and promote education for entrepreneurship to schools, heads of schools and teachers.**
- **Supporting the efforts of dedicated organisations is an effective method of spreading the entrepreneurial spirit in schools and of encouraging partnerships with the business world.**

Entrepreneurship develops in an environment that encourages active forms of learning. To enable this, **support is needed** and should include providing initial and in-service training for teachers, giving them the time and resources to plan, run and evaluate activities, making teaching material available and clarifying responsibilities. The commitment of heads of schools and school boards is crucial, as is parental involvement.

There is a need for **public authorities**, especially those responsible for education, employment, industry and enterprise, to actively promote entrepreneurship education. An important first step at a national level is **establishing formal cooperation between different departments of the administration**, given the horizontal and interdisciplinary nature of entrepreneurship education. This cooperation can lead to launching a national **strategy or action plan**.

In **Finland**, an entrepreneurship steering group was set up in 2002 to develop and coordinate entrepreneurship at different levels of education, with members representing different ministries, organisations and educational administrations.

One major **obstacle** is that teachers lack motivation and **specific training**. The efforts that **teachers** devote to practice-based activities, sometimes even outside their normal working hours, should be recognised as an official school task. Despite increasing awareness on the part of public authorities, initiatives addressing teachers are in most cases not systematic.

In terms of policy, there may be different ways of moving forward. Support measures adopted by governments take the form of **encouraging partnerships between schools and enterprises, supporting dedicated organisations** delivering concrete programmes, **financing pilot projects** in the schools, and **disseminating good practice**. Although systematic promotion is still limited, there are **good examples in Europe worth highlighting**.

¹⁸ MAP project Education for Entrepreneurship, Final Report, March 2004.

In the **Netherlands**, the government funded pilot projects in schools. Support included the development of teaching materials, the organisation of seminars and training for teachers. The goal is now to encourage take-up of these projects by other schools by presenting good practices to school management, teachers and students.

Private actors (business associations, companies, entrepreneurs, business consultants, etc.) are becoming more involved in education, both by sponsoring specific initiatives and by participating directly in teaching (e.g. as mentors). This involvement should be seen by firms as a long-term investment, and as an important aspect of their **corporate social responsibility**. Private-public **partnerships** are crucial to the development of entrepreneurship education. The establishment of **school-business-community links** is a key element of successful programmes. This process needs to be encouraged further.

Numerous **organisations**¹⁹ are currently disseminating entrepreneurship education across Europe by means of **partnerships with the business world**, with a certain degree of public support. They promote programmes based on learning in practice, for instance by means of students running mini-companies. In the absence of, or in addition to, a methodology developed internally by the education system, their contribution to entrepreneurship education is significant in most European countries. These organisations also provide training for teachers, and may act as drivers of change in national educational policies.

In **Norway**, Young Enterprise Norway is a partner for the Government in implementing the Strategy for Entrepreneurship Education. In 2004, 14% of all students leaving upper secondary school had participated in the Student Company Programme.

3. ENTREPRENEURSHIP IN HIGHER EDUCATION

- **Universities and technical institutes should integrate entrepreneurship as an important part of the curriculum, spread across different subjects, and require or encourage students to take entrepreneurship courses.**
- **Combining entrepreneurial mindsets and competence with excellence in scientific and technical studies should enable students and researchers to better commercialize their ideas and new technologies developed.**

In university studies, entrepreneurship education provides specific training on **how to start and run a business**, and encourages and **supports business ideas** from students. Tertiary education is normally highly decentralised, but there are some examples of a national strategy for promoting entrepreneurship in higher education, normally as a result of cooperation between the administration and universities.

In the **UK**, the aim of the Science Enterprise Challenge is to establish within universities a network of centres funded by the government and specialised in matching entrepreneurship studies with science and technology.

¹⁹ For instance, members of the networks Junior Achievement-Young Enterprise Europe, EUROPEN and JADE.

There are few **Chairs in Entrepreneurship** in Europe²⁰, which lags behind the US by a factor of four²¹. Moreover, entrepreneurship teaching concentrates mostly on students following **economics and business courses**; the teaching available to those studying other subjects is limited. Entrepreneurship remains primarily elective and tends to be offered as a stand-alone subject. Universities should integrate entrepreneurship **in different subjects of their study programmes, as it may add value to all degree courses**. Also, in order to tackle the shortage of specialised professors, **entrepreneurship should be more broadly recognised as a specialisation field for doctoral programmes**.

Case studies and other interactive teaching methods are under-utilised²², as is the involvement of business people in the learning process. To encourage entrepreneurial behaviour, a **supportive environment** is needed. **Higher education establishments committed to entrepreneurship** provide or facilitate access to risk capital, management capacity building and networking. **Business plan competitions** are an effective way to expose students to investors. The presence of **incubators** and **science parks** also clearly signals universities' commitment, through the practical supply of services.

Within **business studies** at undergraduate and graduate level (including MBAs), courses should have a greater focus on aspects such as setting up a business, managing the growth phase of an SME and ensuring continuous innovation.

Special attention should be paid to systematically integrating entrepreneurship training in **scientific and technical studies and within technical institutions** (e.g. polytechnics), in order to better enable spin-offs and innovative start-ups, and as a means to help researchers to acquire entrepreneurial skills. Business schools and technical/scientific faculties should collaborate more, for instance by creating interdisciplinary teams of students and doctoral candidates. There needs to be more focus on developing the skills and competencies necessary for fully exploiting **innovation and knowledge transfer** activities in combination with the **commercialisation of new technologies**²³.

European universities need to clearly identify the strategic part that innovation and knowledge transfer plays within the overall institution's missions.

Academic spin-offs are increasingly seen as important means of enhancing local economic development. However, in order to accomplish their new roles, scientists as well as universities must build **business and managerial competencies**.

There are some **internal barriers**, for instance a career system strongly based on academic merit that still does not make an entrepreneurial path a credible option. Problems also seem to pertain to labour mobility in and out of academia, and to the ability to flexibly and strategically recruit personnel within universities²⁴. Inter-sectoral mobility of researchers at all stages of their careers (including at the level of doctoral training) should become a normal

²⁰ Best Procedure project on Education and Training for Entrepreneurship, November 2002.

²¹ Survey on entrepreneurship education in Europe by EFER and EFMD, September 2004. J. A. Katz, Survey of Endowed Positions in Entrepreneurship and Related Fields in the United States, October 2003.

²² Survey on entrepreneurship education in Europe.

²³ See also: More Research and Innovation – Investing for Growth and Employment: A Common Approach. COM (2005)488 final.

²⁴ Nordic Innovation Centre, *Entrepreneurial learning & academic spin-offs*, Göteborg, January 2005.

component of a researcher career path²⁵ Such mobility should also help to develop the necessary skills and competences for enhancing the entrepreneurship culture and attitude within universities.

Finally, it is vital to create a critical mass of entrepreneurship teachers, and to step up cross-border collaboration. While innovative teaching approaches to entrepreneurship training within universities are being tested throughout Europe, **sharing of these practices** should be increased.

4. THE WAY AHEAD

The following **recommendations** for concrete action are based on evidence and good practice found in Europe. Most of the action needs to be taken at national or local level. The proposals aim to help formulate more systematic approaches to entrepreneurship education and **to enhance the role of education in creating a more entrepreneurial culture in European societies**.

4.1. A coherent framework

- National and regional authorities should establish **cooperation between different departments**, leading to developing a strategy with clear objectives and covering all stages of education in the context of the Lisbon national programmes.
- **Curricula for schools at all levels** should explicitly include entrepreneurship as an objective of education, accompanied by implementation guidelines.

4.2. Support for schools and teachers

- Schools should be given **practical support and incentives** to encourage take-up of entrepreneurship activities and programmes, through a range of different instruments.
- Special attention should be given to **training teachers**, through initial and in-service training as well as practical experience, and to raising the awareness of heads of schools and school boards.

4.3. Participation by external actors and businesses

- **Cooperation between educational establishments and the local community, especially businesses**, should be encouraged. Involvement in formal and non-formal education should be seen by firms as an investment and as an aspect of their **corporate social responsibility**.
- The use of student **mini-companies** at school should be further promoted. In that context, the activity of organisations promoting these programmes, such as NGOs, should be recognised, and their initiatives more systematically supported.

²⁵ European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (C52005) 576 final, 22 March 2005.

4.4. Fostering entrepreneurship in higher education

- Higher education institutions should **integrate entrepreneurship** across different subjects and courses, notably within scientific and technical studies.
- **Public authorities' support** is especially needed to provide high-level training for teachers and to develop networks that can share good practice.
- **Teacher mobility** between university and the business world should be encouraged, together with the involvement of **business people** in teaching.

The Commission will continue to support Member States' actions on more comprehensive policies, through coordination activities and specific projects. It will disseminate good practice and raise the visibility of entrepreneurship education through a wide range of actions, including the follow-up to the Recommendation on key competences. From 2006, work on entrepreneurship in higher education will be intensified. From 2007 the proposed new Community Integrated Programme on Lifelong Learning will support innovative projects with a European dimension, aiming to foster entrepreneurial attitudes and skills and to promote links between educational establishments and enterprises. The European Social Fund will continue to support initiatives at European, national and local level.

Public authorities in the Member States are invited to take the necessary action and to speed up the pace of reforms, according to the specific needs of each country. This Communication will serve as a **reference** for reviewing progress in policy development, notably through the Lisbon Reports that the Member States will submit under the Integrated Guidelines for Growth and Jobs (*Guideline No 15*).