



European Commission



Enterprise Directorate-General

# **FINAL REPORT OF THE EXPERT GROUP “EDUCATION FOR ENTREPRENEURSHIP”**

**Making progress in promoting entrepreneurial attitudes and skills  
through Primary and Secondary education**

## **Legal Notice**

This project has been conducted with experts in the field of education for entrepreneurship, nominated by the national authorities under the Multiannual Programme for Enterprise and Entrepreneurship (2001-2005) coordinated by the Enterprise Directorate-General of the European Commission.

Although the work has been carried out under the guidance of Commission officials, the views expressed in this document do not necessarily represent the opinion of the European Commission.

Reproduction is authorised, provided the source is acknowledged.

### **Further information:**

#### **European Commission**

Enterprise Directorate General

Unit B.1: Entrepreneurship (SC 27 3/4)

B-1049 Brussels, Belgium

Fax: +32-2-29.66 27 8

E-mail: [Entr-Business-Support@cec.eu.int](mailto:Entr-Business-Support@cec.eu.int), [Entr-entrepreneurship@cec.eu.int](mailto:Entr-entrepreneurship@cec.eu.int)

[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/index.htm)

### **Information on other projects:**

Information on other projects jointly carried out by the European Commission and by the national administrations that are addressing the issues of promoting entrepreneurship and improving business support measures can be found on the web, at the following address:

<http://europa.eu.int/comm/enterprise/entrepreneurship/index.htm>

*Completed in February 2004*

# Table of Contents:

<b>MEMBERS OF THE EXPERT GROUP</b> .....	4
<b>EXECUTIVE SUMMARY</b> .....	6
<b>1. INTRODUCTION AND BACKGROUND</b> .....	10
<b>2. OBJECTIVES AND METHODOLOGY</b> .....	14
<b>3. OVERVIEW OF CURRENT DEVELOPMENTS IN IDENTIFIED KEY AREAS</b> .....	17
<b>3.1. <i>The National Curriculum</i></b> .....	17
<b>3.2. <i>Starting from primary education</i></b> .....	19
<b>3.3. <i>International networks, and programmes based on “learning by doing”</i></b> .....	22
<b>3.4. <i>Training the teachers</i></b> .....	26
<b>3.5. <i>Creating a global framework</i></b> .....	27
<b>3.6. <i>Translating Policy commitment into concrete measures</i></b> .....	28
<b>3.7. <i>Collection of quantitative data</i></b> .....	33
<b>4. SOME EXAMPLES OF GLOBAL STRATEGIES OR POLICY MEASURES ADOPTED BY THE NATIONAL (OR REGIONAL) AUTHORITIES IN THIS AREA</b> .....	36
<b>5. INDICATORS AND POSSIBLE TARGETS</b> .....	46
<b>6. BUILDING A POLICY FOR ENTREPRENEURSHIP EDUCATION: A METHODOLOGY FOR THE FUTURE</b> .....	49
<b>6.1. <i>Establishing a self-sustained process: European instruments</i></b> .....	50
<b>6.2. <i>Policy commitment, and future perspectives at national level</i></b> .....	53
<b>6.3. <i>A possible methodology for the future</i></b> .....	55
<b>7. FINAL CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE ACTION IN THIS AREA</b> .....	59
<b>ANNEX - <i>The education systems in Europe</i></b> .....	64

## MEMBERS OF THE EXPERT GROUP

Country	Name	Organisation	E-mail
<b>Austria</b>	Mr. Hans Janik	Ministry for Economic Affairs and Labour	<a href="mailto:Hans.Janik@bmwa.gv.at">Hans.Janik@bmwa.gv.at</a>
	Ms. Hannelore Kempel	Ministry of Education, Science and Culture	<a href="mailto:Hannelore.Kempel@bmbwk.gv.at">Hannelore.Kempel@bmbwk.gv.at</a>
<b>Belgium</b>	Mr. Charles Hittélet	Institut wallon de Formation en Alternance et des indépendants et des PME (IFAPME)	<a href="mailto:charles.hittélet@ifapme.be">charles.hittélet@ifapme.be</a>
	Mr. Frédéric Denil		
<b>Bulgaria</b>	Ms. Antoaneta Voikova	Ministry of education and science	<a href="mailto:tvoikova@hotmail.com">tvoikova@hotmail.com</a>
<b>Czech Rep.</b>	Ms. Viola Horská	Institute for Pedagogical Research	<a href="mailto:horska@vuppraha.cz">horska@vuppraha.cz</a>
<b>Denmark</b>	Mr. Jan Hein Nielsen	Uphill ( <i>Process Consultant</i> )	<a href="mailto:jan@uphill.dk">jan@uphill.dk</a>
<b>Estonia</b>	Ms. Epp Vodja	Junior Achievement Fund	<a href="mailto:epp@ja.ee">epp@ja.ee</a>
<b>Finland</b>	Mr. Jussi Pihkala	Ministry of Education	<a href="mailto:jussi.pihkala@minedu.fi">jussi.pihkala@minedu.fi</a>
<b>France</b>	Dr. Alain Fayolle	INPG-ESISAR	<a href="mailto:Alain.Fayolle@esisar.inpg.fr">Alain.Fayolle@esisar.inpg.fr</a>
<b>Germany</b>	Ms. Marion Hüchtermann	Institut der deutschen Wirtschaft Köln	<a href="mailto:huechtermann@iwkoeln.de">huechtermann@iwkoeln.de</a>
<b>Greece</b>	Dr. Joseph Hassid	University of Piraeus	<a href="mailto:jhassid@unipi.gr">jhassid@unipi.gr</a>
<b>Hungary</b>	Mr. Ivàn Jävorszky	Junior Achievement Magyarország	<a href="mailto:Javorszky.Ivan@ejam.hu">Javorszky.Ivan@ejam.hu</a>
<b>Iceland</b>	Ms. Halla Tomasdottir	Reykjavik University School of Business	<a href="mailto:halla@ru.is">halla@ru.is</a>
<b>Ireland</b>	Ms Anna Gethings	AG Services	<a href="mailto:agethings@agservicesgroup.com">agethings@agservicesgroup.com</a>
<b>Italy</b>	Dr. Franco Sensi	Ministero per le Attività Economiche e Produttive ( <i>Consultant</i> ).	<a href="mailto:fsens@tin.it">fsens@tin.it</a>
<b>Latvia</b>	Ms. Veronika Bikse	University of Latvia	<a href="mailto:vbikse@lanet.lv">vbikse@lanet.lv</a>

<b>Lithuania</b>	Mr. Eugenijus Savicius	Lietuvos Junior Achievement	<a href="mailto:jalith@lja.lt">jalith@lja.lt</a>
<b>Luxembourg</b>	Mr. Gilbert Engel	Ministère de l'Education Nationale, de la Formation Professionnelle et du Sport	<a href="mailto:engel@men.lu">engel@men.lu</a>
<b>Netherlands</b>	Mr. Robin van IJperen	Ministry of Economic Affairs	<a href="mailto:R.vanijperen@minez.nl">R.vanijperen@minez.nl</a>
<b>Norway</b>	Ms. Elin M. Oftedal	Høgskolen i Bodø	<a href="mailto:elin.m.oftedal@hibo.no">elin.m.oftedal@hibo.no</a>
<b>Poland</b>	Mr. Marcin Kulikowski	Warsaw School of Economics	<a href="mailto:mkulik@sgh.waw.pl">mkulik@sgh.waw.pl</a>
<b>Portugal</b>	Dr. Jaime Prudente	IAPME-Direcção de Políticas para a Inovação Empresarial	<a href="mailto:jaimе.prudente@iapmei.pt">jaimе.prudente@iapmei.pt</a>
<b>Slovenia</b>	Ms. Vanja Hazl	Small Business Development Centre	<a href="mailto:Vanja.Hazl@pcmg.si">Vanja.Hazl@pcmg.si</a>
<b>Spain</b>	Dr. Ignacio Fernandez Toca	Subdirección General de Formación Profesional Ministerio de Educación, Cultura y Deporte	<a href="mailto:ignacio.fernandez@educ.mec.es">ignacio.fernandez@educ.mec.es</a>
<b>Sweden</b>	Mr. John Wallon Ms. Annika Järemo	NUTEK, Swedish Business Development Agency	<a href="mailto:annika.jaremo@nutek.se">annika.jaremo@nutek.se</a>
<b>Turkey</b>	Mr. Mahmut Oguz Kiliç	Istanbul IMES KOSGEB Business Development Center	<a href="mailto:okilinc@kosgeb.gov.tr">okilinc@kosgeb.gov.tr</a>
<b>United Kingdom</b>	Mr. Alastair Mathews	Department of Trade and Industry - DTI ( <i>Consultant</i> )	<a href="mailto:Alastair.Mathews@dti.gov.uk">Alastair.Mathews@dti.gov.uk</a>
<b>European Commission</b>	Mr. Simone Baldassarri	Enterprise Directorate-General	<a href="mailto:simone.baldassarri@cec.eu.int">simone.baldassarri@cec.eu.int</a>

## EXECUTIVE SUMMARY

This work follows the conclusions of the “**Best Procedure**” project on **education and training for entrepreneurship**<sup>1</sup>, launched in June 2001 in the framework of the Multiannual Programme for Enterprise and Entrepreneurship (2001-2005).

Europe needs to foster the entrepreneurial drive more effectively. It needs more new firms willing to embark on creative or innovative ventures and more entrepreneurs. It is recognised that **education** can greatly contribute to creating a more entrepreneurial culture, starting with young people and at school. Promoting entrepreneurial skills and attitudes provides benefits to society even beyond their application to new business ventures. In a broad sense, entrepreneurship should be considered as a **general attitude** that can be usefully applied in all working activities and in life. Therefore the objectives of education will include nurturing in young people those **personal qualities** that form the basis of entrepreneurship, such as creativity, spirit of initiative, responsibility, capacity of confronting risks, independence. This type of attitude can be promoted already in primary school teaching. The importance of fostering an entrepreneurial mindset among young people is also emphasised in the **Entrepreneurship Action Plan** recently adopted by the Commission<sup>2</sup>.

Based on the main findings of the previous “Best Procedure” project, the objective of this report is to identify **national or regional policies and strategies** that will make it possible to achieve concrete progress in promoting entrepreneurship education within **primary and secondary school**, as well as to propose instruments that would help monitoring such progress.

The analysis carried out has looked in particular at **key issues** such as:

- *The national curriculum;*
- *Starting from primary education;*
- *The role of international networks and NGOs promoting programmes based on "learning by doing";*
- *The provision of training to teachers;*
- *Creating a global framework, and translating commitment into concrete measures;*
- *Concrete examples of a national or regional strategy;*
- *Collection of quantitative data;*
- *Indicators and possible national targets;*
- *Establishing a permanent mechanism for monitoring progress.*

The enquiry shows that **there may be different ways of moving forward in this area**. Concrete **references** as to how this issue is being tackled by national and local authorities are given throughout this Report.

Entrepreneurship is now recognised as a basic competence, and could be explicitly included in the national curriculum, depending on the way the education system is structured. In most countries the national curriculum is reported as having **broad**

---

<sup>1</sup> Final Report of the Expert Group (November 2002):

[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/training\\_education/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/training_education/index.htm)

<sup>2</sup> Action Plan: *The European agenda for Entrepreneurship*, European Commission, COM (2004) 70 final, 11.02.2004.

**objectives** and therefore allows - at least theoretically – the development of activities to foster entrepreneurial attitudes in schools. However, even though possible, entrepreneurship is normally **neither required nor promoted**. In this respect, an important measure taken recently by several administrations has been to **revise the national curriculum** in order to have entrepreneurship included either as a subject or as a cross-curricular theme, although only in few cases has this measure addressed coherently all levels of education (from primary to higher secondary education, including initial vocational training).

Even integrating the teaching of entrepreneurship into the curriculum will not however be the solution if accompanying measures are not adopted. **Measures of incentive and support are needed, as schools and teachers have a large degree of autonomy**. It is important that directors and teachers are convinced about embarking in these activities, and that the school environment is favourable to entrepreneurship education. In this respect, comprehensive measures of active promotion have so far been implemented **only on a limited basis**.

**Support measures** put in place by national or local authorities in order to encourage schools to get involved in entrepreneurship related activities can take the form of financing pilot projects, promoting links between schools and enterprises, providing teaching material, supporting dedicated networks and NGOs, raising awareness or disseminating good practice. Particular attention needs to be dedicated to teachers, and to making specific training for them available.

In fact, one major problem is still represented by the **insufficient provision of training to the teachers** on how to bring the concept of entrepreneurship into the classroom. In addition, there is a lack of systematic plans to address the existing gap. This risks being a major obstacle to the increase in the application of programmes in the short term.

**Exchange and dissemination of good practice** can be an effective instrument, but is not being applied extensively: efforts need to be increased both at national and at European level. Disseminating good practice can be a realistic way of achieving progress, by promoting awareness and greater motivation among educational institutions and teachers. In particular, while the notion of entrepreneurship is to a certain extent accepted (at least in theory) when applied to secondary level education, this is not yet the case for **primary education**. Raising awareness initiatives are needed: it is necessary to explain why promoting an entrepreneurial attitude can be important even at that level of education, what it involves in practice (e.g. development of certain personal qualities) and to offer **concrete examples**.

Some **international networks and NGOs** are currently disseminating entrepreneurship education among young people across Europe, by means of partnerships with the business world and with a certain degree of support from the public sector. In a number of countries, **external organisations have taken the lead** in promoting the teaching of entrepreneurship within the education systems. Therefore, in addition to direct action to be taken by the relevant authorities, initiative coming from these organisations should be used. For instance, existing international programmes based on **student companies** or **practice firms** should be recognised and supported by the educational authorities (as it is the case in some countries), and be better embedded into the curricula, as they provide well experimented methodologies that can be adapted to the local context. These networks and programmes, which have also proven a good capacity of mobilising private partners

and supporters, represent a potential that is **not fully exploited** by the education systems. More generally, the important **role of the private sector** is recognised by this Report. Further and innovative ways of promoting public/private partnerships need to be devised, and successful experiences disseminated. Direct involvement of businesses and entrepreneurs in school activities and programmes at local level needs to be encouraged.

Interesting developments at a national level have recently taken the form of **creating regular links within the administration**, particularly between the Ministry of Economy or Industry, the Ministry of Education and other departments or agencies. In some cases, this has led to creating inter-service working groups dedicated to the promotion of entrepreneurship education. This can be seen as a pre-condition in view of adopting a global strategy, as entrepreneurship education should be considered as a horizontal issue.

In some instances - often as a follow-up of that first step - an **action plan** on entrepreneurship education (sometimes as a part of a broader strategy on entrepreneurship or innovation) has been launched by central governments. Adopting a coordinated strategy is crucial in this area, as entrepreneurship education needs to involve not only different sectors of the public administration, but also a number of other actors. There are some examples of this approach that could be disseminated to other countries where this process has not started yet, or is only at the very beginning. In fact, this type of **institutional co-operation** seems to be either still **missing** or **not yet thoroughly developed** in most countries.

**Regional and local authorities** are also called upon to play an essential role in promoting entrepreneurship education in the local community, by means of developing a strategy that will target schools, local businesses and all interested organisations, including adapting the curriculum (where this is a viable option for regional/local authorities) and supporting the development of programmes.

The report highlights some **promising signs of developing a coordinated and global effort**. However, most of these initiatives - launched by national or regional authorities - are still in a starting phase, and it is not possible at the moment to anticipate what will be their final outcome or impact. Although a number of countries report plans to introduce new measures, on a European scale ongoing and planned new initiatives **do not seem** at the moment **to be altogether sufficient for making entrepreneurship education widespread in the school system** and generally available to students.

In particular, the enquiry shows that, with some exceptions, **no major developments** are to be expected in the short term - at least on the initiative of national policy - as regards the following key aspects: activities in **primary education**; provision of specific **training to the teachers**; collection of **quantitative data**.

Collection of **qualitative** and **quantitative information** (such as on the number of schools involved in these activities, and of students participating) can be important in order to set up a permanent framework for monitoring progress, and to assess if some well defined and measurable objectives have been achieved. In the absence of comprehensive information, assessment would be based on qualitative indicators, and on quantitative indicators that relate to a limited number of well-known programmes. Defining some **national targets** - to be reached on a voluntary basis and in a European context - would be helpful in order to achieve progress.

Evidence is provided throughout this Report that many **good practice cases, examples of policy action** aiming to promote entrepreneurship education, or **promising initiatives** going in that direction, **can be found across Europe**, in all areas and in different countries. The greatest challenge lies in spreading these positive examples. National and local authorities, educational establishments and all other organisations and actors concerned may learn from each other's **best practice**, or draw inspiration from it.

**Although most of the necessary action has to be taken at a national, regional or even local level, the European Commission can give valuable support to national policies**, in its role of coordination and while respecting the principle of subsidiarity. In particular, the Commission is called to provide a European reference for all these initiatives, coordinate the efforts, suggest possible strategies and common goals to be achieved, facilitate the exchange of experience and good practice. Moreover, it can offer an institutional framework for monitoring progress.

Some possible **instruments** to be used at European level are highlighted (e.g. the "Education and Training 2010" process and the European Charter for Small Enterprises), and a set of integrated actions are proposed, involving different actors, that would make it possible to **achieve progress** in this area, and to **monitor** such progress (*Sections 6 and 7*).

Finally, the report includes 21 **recommendations** (*Section 7*), addressing different levels and actors, including: national, regional and local authorities; educational institutions; the business world and NGOs; the European Commission. They aim to propose a way of moving forward in promoting the enterprise spirit through education, in particular at primary and secondary level, especially through policy making and support from public authorities, but with an active participation from all interested parties.

Proposals include, among others:

- Enhance **cooperation** between different departments in the public administration that have a role to play in this field (e.g. Ministries of Industry and Education);
- Adopt a range of **support measures** targeting the schools and the teachers, thus promoting concretely the application of programmes;
- Support the activities of existing **networks** and **NGOs** promoting programmes based on practical experience, such as student companies or virtual firms;
- Increase participation of **business associations** and Chambers of Commerce in policy making and activities related to entrepreneurship and business education, and the involvement of businesses/entrepreneurs in specific programmes;
- Create an inter-department function or structure at national level that will give impulse to - and coordinate - the **gathering of information** on ongoing activities;
- Step up initiatives for the **dissemination of good practice**, both at national and European level;
- Set up mechanisms for implementing some of the proposed **indicators**, in order to allow assessing progress and eventually defining qualitative and quantitative **targets**.
- Create a permanent **framework for monitoring progress**, by using existing instruments at European level.

## 1. Introduction and background

### *Introduction*

Europe needs to foster the entrepreneurial drive more effectively. It needs more new firms willing to embark on creative or innovative ventures, and more entrepreneurs.

To make progress on the entrepreneurship agenda, the Commission published the **Green Paper ‘Entrepreneurship in Europe’**<sup>3</sup> to involve the largest possible audience of stakeholders in setting the future policy agenda. Based on extensive research data, analysis, surveys and policy experiences, the Green Paper raised questions regarding two fundamental issues for Europe: ‘*How to produce more entrepreneurs?*’ and ‘*How to get more firms to grow?*’ Responses received show that education is seen as an important means to create a more entrepreneurial mindset among young people. As a follow-up to the Green Paper, and on the basis of the public consultation, an **Entrepreneurship Action Plan**<sup>4</sup> has been adopted by the Commission.

Encouraging the **enterprise spirit** in young people is a pre-condition to achieving progress – at least in the longer term – in employment, growth, competitiveness and innovation. **Education** can contribute to creating a more entrepreneurial culture.

Promoting entrepreneurial skills and attitudes provides benefits to society even beyond their application to new business ventures. In a broad sense, entrepreneurship should be considered as a **general attitude** that can be usefully applied in all working activities and in everyday life. Everyone may at some stage need to become an entrepreneur, or to display entrepreneurial behaviour. The objectives of education will thus include nurturing in young people those personal qualities that form the basis of entrepreneurship, such as creativity, spirit of initiative, responsibility, capacity of confronting risks, independence. This type of attitude can be promoted already in primary school teaching, and will involve an active way of learning instead of simply absorbing knowledge. Education has a long-term perspective. Pupils and students in primary and secondary schools will be the active citizens – and some of them the entrepreneurs – of tomorrow. As a new approach to teaching and as a basic competence<sup>5</sup>, entrepreneurship should be introduced in the education systems already at an early stage. In fact, entrepreneurship can be seen - also depending on the level of education - as a cross-curricular and horizontal aspect or as a teaching methodology, besides being treated as a specific subject.

There is in most European countries – although in varying degrees – a **policy commitment** at the level of governments and ministries to promote learning about entrepreneurship. However, such commitment has not yet resulted in making it a

---

<sup>3</sup> Green Paper ‘*Entrepreneurship in Europe*’, European Commission, COM (2003) 27 final, 21.01.2003.

<sup>4</sup> Action Plan: *The European agenda for Entrepreneurship*, European Commission, COM (2004) 70 final, 11.02.2004.

<sup>5</sup> The Lisbon European Council has identified five areas of ‘new basic skills’ for the knowledge-based economy, one of which was entrepreneurship. In March 2001, the Stockholm European Council approved 13 *concrete future objectives of education and training systems*. In this context, the strategic objective “Opening up education and training systems to the wider world” includes an objective for “Developing the spirit of enterprise”.

common feature or a widespread subject in our education systems. This is a relatively new policy area in Europe: exchanging information and learning from each other's experiences is crucial at this stage. As explained in the following pages, **the European Commission** wants to provide an important contribution to this process, and **will continue to promote entrepreneurship education at all levels.**

### *Background of this work*

This work is based on the conclusions of the “**Best Procedure**” project on **education and training for entrepreneurship**, launched in June 2001 in the framework of the Multiannual Programme for Enterprise and Entrepreneurship (2001-2005).

The **Best Procedure** was set up (following a mandate from the Lisbon Council) to promote the exchange of best practice and also to provide synergies between existing processes going in that direction. The common feature of projects under the Best Procedure is the analysis of issues of interest for the Commission and national administrations, with a view to gaining a better understanding of the nature of such issues, of the efforts being deployed and the identification of best practice.

Ultimately, the whole process aims at encouraging policy change in the Member States and in the other participating countries, one of the essential features of this methodology being that projects are carried out jointly by the Commission and by the national administrations concerned.

The objective of the “Best Procedure” project on education and training for entrepreneurship was to identify initiatives across Europe that aim to promote the teaching of entrepreneurship at all levels of the formal education system, from primary school to university. The overall goal was to reach a better understanding of the nature and scope of existing measures and programmes.

A **Working Group** was set up, composed of **national experts** in this field designated by the governments of **all EU Member States and Norway**. The aims of this group were: to bring together the necessary expertise; to provide for information and data on entrepreneurship measures and programmes; and finally, to ensure cooperation and an active involvement in the project from the national administrations of the participating countries.

One task of the expert group has been to agree on a common **definition of “entrepreneurship teaching”**. There was a general recognition of the importance of including within this definition two different elements:

- a broader concept of **education for entrepreneurial attitudes and skills**, which involves developing certain personal qualities and is not directly focused at the creation of new businesses; and,
- a more specific concept of **training on how to create a business**.

Therefore according to the agreed definition<sup>6</sup>, **the objectives of teaching about entrepreneurship** – to be adapted to the different levels of education – will include:

---

<sup>6</sup> The full definition agreed by the experts can be found in the Expert Group Report of November 2002, available on the Internet at the address:  
[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/training\\_education/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/training_education/index.htm)

- Promoting the development of **personal qualities** that are relevant to entrepreneurship, such as creativity, spirit of initiative, risk-taking and responsibility;
- Offering **early knowledge** of and **contact** with the world of business, and some understanding of the role of entrepreneurs in the community;
- Raising students' **awareness of self-employment** as a career option (the message being that you can become not only an employee, but also an entrepreneur);
- Organising activities based on **learning by doing** — for example by means of students running mini-companies or virtual firms;
- Providing **specific training** on how to start a business (especially in vocational or technical schools and at university level).

**Entrepreneurship** education should not be confused with **general economic studies**. In fact, the teaching of entrepreneurship will aim either at stimulating from an early age those personal skills that form the basis of entrepreneurial behaviour, or at encouraging self-employment as a career option. Although there may be certain areas where the two concepts are partially overlapping – as it would be the case for example when providing primary school pupils with some basic knowledge of the functioning of economy and of the role of entrepreneurs, or when teaching management in higher education – entrepreneurship should be considered as an innovative and cross-curricular approach, as a teaching methodology or as subject in its own right, also depending on the level of education.

In **November 2002** a **Report from the Expert Group** was adopted, proposing a number of recommendations for further development.

The analysis developed within the “Best Procedure” project on education and training for entrepreneurship<sup>7</sup> concluded that:

"Although numerous activities are currently being developed at all levels of education, many of them are neither integrated into the curriculum nor part of a coherent framework. Initiatives are often isolated, taken by individual institutions, by partnerships or by local authorities. Frequently, they are driven by external actors and not by the education system itself. Entrepreneurship is more likely to be taught as a separate subject or seen as an extra-curricular activity".

"As a result of this, **most students do not have yet the possibility of taking part in entrepreneurship courses and programmes**".

A **follow-up** to the "Best Procedure" project was started immediately after the publication of that Report. The results of that activity are presented in this document.

The **November Report** identified a number of key areas for further action. In particular, the following broad recommendations set forward by the Expert Group were identified as a reference for the development of policy initiative in this area, and set the general framework for the implementation of this second part of the activity, i.e. for the analysis developed in this document:

---

<sup>7</sup> Final Report of the Expert Group (November 2002).

- Where necessary, the importance of entrepreneurship teaching should be acknowledged by the **national curriculum**, so that specific programmes have a legal basis and a justification, and may be developed within an adequate framework. This will greatly contribute to increasing the motivation of schools and teachers to take up this type of initiatives.
- More initiatives and programmes at the level of **primary education** – using a soft approach to entrepreneurship (see the agreed definition of entrepreneurship teaching) – need to be developed and made generally available in the schools.
- **International expertise and programmes** in the area of entrepreneurship education (...) should be further disseminated, as they can provide an excellent background for new initiatives to be taken both at a national or local level and/or by individual educational institutions.
- Schemes based on **learning by doing**, including the creation of **mini-companies** by the students, should be further promoted and be widely available **at all levels of education**.
- The provision of specific **training for teachers** needs to be greatly increased, as its current insufficiency creates a major obstacle to the implementation of entrepreneurship programmes and activities. If teachers are not adequately trained, motivated and provided with on-going support, little progress can be achieved in this area.
- A **framework** for entrepreneurship education needs to be put in place at national (or regional) level where specific initiatives can be developed, allowing for a long-term perspective, sustainability and eventually for a real impact. Existing measures should be integrated into a comprehensive strategy for the promotion of entrepreneurship. General availability of programmes and courses for students at all levels of education, regardless of the subject content of their studies, should be guaranteed.
- Although good practice should be adopted on a voluntary basis, **policy commitment needs to be translated into concrete action**. This may involve changing the national curriculum where the system is centralised, and/or providing assistance and incentives where schools are free to establish their own programmes. A range of **support measures** to encourage schools to get involved in education for entrepreneurship may include, among others: making funds available; providing advice and teaching material; promoting contacts with local businesses, etc.
- It is crucial for future policy action in this area that **precise, comprehensive and objective quantitative data** are developed. In their absence, it will be difficult in the coming years to monitor progress accomplished in Europe. The national administrations, the European Commission and all the organisations concerned are called upon to improve their efforts in this direction. In particular, an **Action Plan** for the collection of data should be established at national level by each country.

## 2. Objectives and methodology

On the basis of main findings, conclusions and recommendations presented in the **November 2002 Report**, the objective of the new phase of this project was to identify concrete policies that would make it possible to achieve progress in the promotion of entrepreneurship education, as well as to propose instruments that would help monitoring such progress.

This activity was open to **Acceding and Candidate Countries** to the EU. Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia and Turkey have decided to participate. Iceland has also joined. Thus the EU 15 Member States, 2 EFTA/EEA countries (Norway and Iceland) and 9 Acceding and Candidate Countries have taken part in this activity.

An **Expert Group** was established for implementing this follow-up project. While experts in the previous "Best Procedure" project have been confirmed in most cases, in order to ensure continuity with the first phase of this activity, the new participating countries have been asked to designate formally one expert (*the complete list of Experts is provided at pages 4-5*).

The mission of the experts was not simply that of providing expertise and gathering the necessary information. Experts have also played an active role in steering the debate on entrepreneurship education within their national administrations, and in linking different services in order to promote increased coordination of policy where needed.

**Recommendations** presented in the November 2002 Report identified a number of crucial issues for the development of entrepreneurship education in Europe. Most of those recommendations have been used as a reference in this work for monitoring recent developments at a national level, and in order to highlight necessary measures to be taken. It must be stressed that education and training policies are – in accordance with the Treaty – a competence of the Member States of the EU, and the European institutions have a role of policy coordination and stimulation. The open method of coordination defined by the Lisbon Council emphasises this role, which implies promoting the exchange of best practice and using instruments such as benchmarking and monitoring of progress.

Therefore, most of the necessary action has to be taken at a **national, regional or even local level**. **The European Commission** can provide valuable support to national policies in its role of coordination.

As regards the **methodology** used, key questions based on the above-mentioned recommendations have been put to the experts – and through them to the national administrations – through a first Questionnaire. Following the same principle, a second Questionnaire has addressed the development of concrete policies for the future. Providing the necessary feedback has in many cases required inter-service cooperation at a national level between different Ministries (in particular, Ministries of Economy/Industry and Education).

More in detail, the **objectives** that this project has tried to achieve are the following, and are broadly reflected in the structure of this Report:

- Provide an assessment of progress made so far, in line with recommendations proposed in the previous Report, and try to anticipate possible developments for the future;
- Propose examples of ongoing national (or regional) strategies or policy measures aimed at the development of entrepreneurship education;
- Identify further policy initiatives that are needed in this area;
- Propose indicators for possible national targets to be reached on a voluntary basis, and against which progress can be measured;
- Propose a methodology for monitoring progress at a European level, in particular by using existing instruments;
- Provide further and more focussed recommendations for action.

While the “Best Procedure” project on education and training for entrepreneurship has looked at all levels of the education system from primary school to university, the new phase of the project has specifically addressed the **primary** and **secondary levels**, including vocational schools. The reason, besides a general need to focus the effort and to ensure coherence and visibility of results, is that universities have a large degree of autonomy in choosing which programmes and courses they will offer, and they are developing a number of activities on their own initiative. It is especially at the lower levels of education that a more intensive and coordinated effort is needed, and that policy making can greatly influence current and future activities. The important role that primary and secondary schools can play in the early introduction and dissemination of entrepreneurial principles, attitudes and skills, and the specific objectives of this type of education, have been emphasised in the “Best Procedure” project on education and training for entrepreneurship.

Based on the main findings and conclusions of the previous initiative, and following the recommendations proposed by the Expert Group, this work has looked in particular at **issues** such as:

- The **national curriculum**;
- Starting from **primary education**;
- The role of **international networks and NGOs**, and of programmes based on “**learning by doing**” (for example by creating student-companies);
- The provision of **training to teachers**;
- A possible **framework** for entrepreneurship education;
- Translating policy commitment into **concrete measures**;
- Examples of a national (or regional) **strategy** and **policy measures**;
- The **collection of data** at national level;
- Proposing indicators for possible **national targets**, to be reached on a voluntary basis;
- A **methodology** for the future, including establishing a self-sustained and permanent mechanism for monitoring progress;

- Commitment, policy development, and **future perspectives** at national level.

This work seeks to **highlight policy measures and strategies that will allow to move forward in this area**, and to propose concrete actions to be developed at different levels and within a European framework.

The common goals and specific recommendations proposed by the Working Group of national experts, coordinated by the Commission and supported by the national authorities, will need to be achieved or implemented at all levels: national, regional and local, as well as European. For this purpose, the Commission will make use of existing instruments and processes that have been established in the context of the "open method of coordination", ensuring coordination of its different services.

Furthermore, starting from January 2004, a specific new initiative<sup>8</sup> is dedicated to the analysis of programmes based on the creation of **mini-companies** by the students, in particular at secondary level of education. Schemes based on students creating and running mini-companies during one school year have been proposed as a best practice by the "Best Procedure" project on Education and Training for Entrepreneurship. Moreover, other programmes based on practical experience and learning by doing have been highlighted involving participation in practice or virtual firms. The Commission - in collaboration with the national authorities and also with international networks promoting these programmes - will further explore different formats and models based on these methodologies, aiming, for instance, at highlighting concrete examples and factors of success; finding out how the public authorities are supporting the application of these programmes, and the contribution of the business world; raising public awareness, etc.

---

<sup>8</sup> New "Best Procedure" project on "Mini-companies in secondary education".

### 3. Overview of current developments in identified key areas

Policy conclusions and **recommendations** from the "**Best Procedure**" project concluded in November 2002 have focussed on a number of issues to be considered as crucial for making progress on entrepreneurship education in Europe. Some of the identified **key areas** are used in this Section as a basis for monitoring recent developments at national level, highlighting necessary steps to be taken, outlining future perspectives. They are the following:

- *The national curriculum*
- *Starting from primary education*
- *International networks, and programmes based on "learning by doing"*
- *Training for teachers*
- *Creating a global framework*
- *Translating policy commitment into concrete measures*
- *Collection of quantitative data*

Further information on specific **initiatives** and **programmes** aiming to promote the teaching of entrepreneurship in Europe can be found in the **November 2002 Report**<sup>9</sup>.

The analysis developed in this document concentrates on overall strategies, or measures to be implemented by the public authorities in cooperation with all the other actors concerned (schools, associations and NGOs, businesses, etc.).

An overview of recent initiatives taken in this field is also provided by the **national reports**<sup>10</sup> submitted by EU Member States, Norway, Acceding and Candidate Countries in the framework of the **European Charter for Small Enterprises**.

#### 3. 1. *The National Curriculum*

- *Where necessary, the importance of entrepreneurship teaching should be acknowledged by the **national curriculum**, so that specific programmes (...) may be developed within an adequate framework (...).*

Firstly, it should be pointed out that in some countries no national curriculum as such exists, as education policy has been devolved to regions or federal states (**Belgium, Germany**). Also, there is no prescribed curriculum for the **UK** as a whole.

Entrepreneurship programmes are in most cases developed as extra-curricular activities, both at primary and secondary level of education.

In those countries where entrepreneurship activities are predominantly - or exclusively - extra-curricular, it is commonly believed that this situation represents an obstacle to their dissemination and availability.

---

<sup>9</sup> Expert Group Report of November 2002:

[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/training\\_education/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/training_education/index.htm)

<sup>10</sup> All the 2003 Implementation Reports are available on the web:

[http://europa.eu.int/comm/enterprise/enterprise\\_policy/charter/reports.htm](http://europa.eu.int/comm/enterprise/enterprise_policy/charter/reports.htm)

At **primary level**, the explicit inclusion of entrepreneurship in the national curriculum is rare, even defining entrepreneurship in a broad sense (*see the definition at page 8 and in the November 2002 Report*). This is the case in **Finland, Luxembourg, Norway, Iceland** to a certain extent, and **Spain** (starting from 2004/2005). In some countries (e.g. **Austria, Denmark and Sweden**), the national curriculum provides for the development of soft skills that can be considered as a pre-requisite for the development of entrepreneurial qualities. More detailed information is provided in the *next Section on primary education*.

At **secondary level** there are subjects that can be used - on the initiative of schools and teachers - for the teaching of entrepreneurship. In fact, **in most countries the national curriculum has broad objectives** and therefore allows - at least theoretically - for the development of entrepreneurship activities. In this sense, almost all countries report that the national curriculum in its current format makes the teaching of entrepreneurship possible. However, this is not sufficient in itself. Even though possible, entrepreneurship is in most cases **neither required, nor promoted**. Obstacles lie with the lack of teaching material, insufficient motivation of the teachers, the absence of specific training. Since teachers have a certain freedom to decide what to focus on, promotion and support measures are necessary, for instance by involving the directors of the schools. Developing these programmes requires an extraordinary effort from teachers, sometimes even beyond their normal school activity, and is not sufficiently recognised.

Most national experts agree that the national curriculum, although it allows the development of entrepreneurship activities, does not provide sufficient motivation to teachers and schools in doing so (different opinions are expressed by **Austria, Bulgaria, Norway, Turkey** and the **UK**). Changing the national curriculum is consequently not seen in most countries as the main problem. Priority should be given to providing incentives, and specific training to teachers (*for concrete examples, see Sections 3.4, 3.6 and 5.*)

In a small number of countries, entrepreneurship is explicitly included in the national curriculum of comprehensive secondary level (examples: **Finland, Poland and Norway; Spain** from 2004/2005). In **Ireland**, entrepreneurship activities promoted by external organisations are embedded in the curriculum. Ireland shows a good example of integrating independent initiatives into the curriculum: there are different activities, but they are organised in a package where state programmes co-exist with initiatives led by the private sector or by partnerships. On a regional level, in **Germany** in the federal state of Brandenburg the curriculum recommends that students participate in a mini- company during the 9<sup>th</sup> or 10<sup>th</sup> year.

However, even where entrepreneurship as a concept or as a subject matter is integrated in the curriculum, **incentives** are still needed. In fact, normally these activities are not compulsory, and schools may decide to offer no activity at all. As the national curriculum only provides optional entrepreneurship education for students, it is not compulsory that teachers undertake the relevant training. Moreover, such training is not widely available. It is therefore left to the motivation of the individual teachers to become involved in these activities.

The explicit inclusion of entrepreneurship in the main curriculum is more likely to be found in vocational schools of secondary level (as in **Austria, Bulgaria, Finland, Hungary, Latvia, Lithuania, Poland, Spain, Turkey**).

In **Austria**, entrepreneurship has been introduced in the curriculum of vocational schools and colleges either as a compulsory or as an optional subject. In particular, Colleges of Business Administration - as part of secondary level education - place a special emphasis on entrepreneurship and business start-up. In **Spain**, the initial vocational training system has self-employment as an explicit objective, with the possibility to adapt the contents of programmes to the local environment.

In a few countries a revision of the national curriculum is currently under way, or there are plans going in this direction. In **Bulgaria** (which cooperates with **Austria** in the framework of a bilateral agreement), the curriculum of vocational non-economic schools includes entrepreneurship from the autumn of 2003. In the **Czech Republic**, a reform of the national curriculum for all school levels is going to be adopted by the Ministry of Education, Youth and Sports. Consequently, entrepreneurship education will be introduced into the curriculum, allowing schools to run specific activities and programmes. In **Denmark**, plans are under way to include entrepreneurship in the curriculum of secondary level vocational schools in 2004. In **Finland**, the new national core curricula to be adopted by 2006 include entrepreneurship as an integrated theme that will be implemented by the schools. The process will be completed in 2006 for basic (compulsory) schooling and in 2005 for upper secondary schools. In **Ireland**, the national authorities are reviewing the Junior and Senior Cycle curriculum in post primary schools (decisions as regards the provision and content of entrepreneurship education are not known at the moment). In **Lithuania**, changes are foreseen within the long-term strategy on economic education that is being developed by the Ministry of Education. In **Portugal**, there was recently a recommendation from the President, and this issue is being considered by the Ministry of Education. In **Spain**, the Organic Act 10/2002 on Quality of Education intends to promote entrepreneurship as a principle in comprehensive education at primary and secondary levels, and a consequent revision of the national curricula has been undertaken. Concrete application will depend however on the autonomous regions.

#### *Conclusions:*

There are some recent examples of **revising the national curriculum** in order to introduce entrepreneurship as a basic principle. However, the review has coherently re-designed curricula at all levels of the education system in only a few cases.

This measure has more commonly addressed initial vocational training of secondary level.

Revising the national curriculum can be a first, important step, but the extent to which this measure is required will vary from case to case. And this will not be sufficient in itself if no **support measures** are implemented. The national curriculum provides a basis, but entrepreneurship needs to be promoted. Awareness and recognition of entrepreneurship as a basic skill need to be spread within the educational authorities and the schools. This should involve school directors, and parents as well.

### **3.2. Starting from primary education**

- *More initiatives and programmes at the level of **primary education** – using a soft approach to entrepreneurship (...) - need to be developed and made generally available in the schools.*

In some countries the national curriculum is reported to encourage active forms of learning and to have as an objective the development of personal qualities in children, such as creativity and spirit of initiative, or to promote innovation (for example in **Austria, Denmark, Iceland, Norway and Sweden**).

Examples of more focused entrepreneurship education, by means of programmes providing an early understanding of the role of entrepreneurs in our society, or combining creativity, innovation and a simple concept of business (e.g. pupils selling products at school markets, work on projects or case studies, business games, etc.) are more rare. Apart from a small number of national programmes, and from local initiatives, these are sometimes developed on a national scale by external organisations and networks like *Junior Achievement - Young Enterprise*.

Entrepreneurship is explicitly included in the curriculum of primary education in a small number of countries (**Finland, Luxembourg, Norway and Spain** (starting from 2004/2005)). In **Finland**, a new core curriculum is being implemented that includes entrepreneurship as a horizontal aspect (the process will be completed in 2006). In **Latvia**, the mandatory subject of Social Science will be used from 2004 for introducing the concept of entrepreneurship.

In general, **widespread initiatives or programmes led by the educational authorities are still rare at this level of education.**

In **Luxembourg**, the compulsory 6th-year French-language programme has an entire unit devoted to starting up a business, based on the strip cartoon "*Boule et Bill créent une entreprise*", and this is applied by **all primary schools**. Exercises are developed by the students from the contents of the textbook (*more information is provided under Section 4.5*).

In **Iceland** there is great emphasis on **innovation** through the "Young inventors competition", which is embedded in the national curriculum with about one third of all primary schools participating. This initiative started in 1991, and the number of schools is increasing each year. Although the focus is primarily on the creativity and innovation aspect, a few schools have taken the opportunity to offer a more complete training on how to start and run a business in relation to it (*more information is provided under Section 4.8*).

In the **UK**, in **Scotland**, the Schools Enterprise Programme (a joint-venture partnership between the Scottish Executive and the business community) has the objective to offer **every primary school pupil** at least two enterprise experiences by the end of their primary education. The programme involves a range of classroom activities designed to fit within the curriculum (*more information is provided under Section 4.7*).

In **Slovenia**, entrepreneurship in primary schools takes place through the "Programme for development of entrepreneurial culture and creativity among young people", carried out by the Small Business Development Center and supported by different Ministries. In total, 123 primary schools (out of 450 in Slovenia) are involved in "**entrepreneurial circles**". Training for teachers and mentors is included.

In primary education, the presence of programmes promoted by **international networks and NGOs** (notably *Junior Achievement - Young Enterprise*) is significant

(see Section 3.3). In a number of countries (for example, **Estonia, Latvia and Lithuania**) these programmes are by far the most important entrepreneurship-related activity at the level of primary school, or even the only activity (**Czech Republic, Hungary**). This situation is particularly evident in Accessing and Candidate Countries of central and eastern Europe.

In general, at this level of education **main instruments** or methodologies in use are reported to be: working on projects, visits to enterprises (or entrepreneurs visiting the schools), learning by playing. Mini-companies can be also used in primary school.

National plans for increasing the presence of entrepreneurship in primary schools are scarce, and rely in many cases on the activities of *Junior Achievement - Young Enterprise* (particularly in Accession and Candidate Countries of central and eastern Europe). In a number of countries, *JA-YE* is in fact planning to expand significantly the participation of schools in these programmes (for instance in **Hungary, Latvia, Lithuania**). In **Greece**, where the effort to introduce entrepreneurship education does not include at the moment primary schools, there are plans for extending the application of *Junior Achievement* programmes to this level.

If we set aside activities driven by these international networks from the outside of the system, no significant strategies for future increase of the application of entrepreneurship related activities can be found in the countries surveyed, with some exceptions. The case of the **UK (Scotland)** has been already mentioned. In **Finland**, the new core curriculum will make it possible to increase activities in the schools. In **Norway**, *JA-YE* programmes are expected to expand in the next years based on financial support from different Ministries. In **Slovenia**, there is a plan to make “entrepreneurial circles” a part of the school system. Some future strategies or plans are currently under discussion also in **Austria, Ireland and Lithuania**.

Concrete plans to change the national curriculum for primary level and include entrepreneurship can currently be found in the **Czech Republic, Finland and Spain**.

In **Spain**, a Royal Decree of June 2003 establishing common courses in Primary Education (age 6-12) has been approved. The development of knowledge and skills linked to entrepreneurship has been included in Geography and History.

#### *Conclusions:*

More widespread understanding of the objectives of entrepreneurship education at this level is necessary, as well as of the importance of promoting creativity, innovation and a first contact with the world of business starting from an early age. The ongoing analysis shows that efforts devoted by public administrations in this direction are **not yet sufficient** in most cases, and that there is sometimes a **lack of awareness** or simply this specific sector **is not considered as a priority**.

To this purpose, existing **international programmes** could be more widely used and supported. In particular, *Junior Achievement* provides methodologies that have been long experimented and can be easily adapted to the local situation and used by the schools.

Long-term plans are needed that are coherent with the future objectives of education. It is important to **disseminate existing good practice** in order to show what can be accomplished at this level of education, and to further motivate public authorities, schools, teachers and also parents.

### **3.3. International networks, and programmes based on “learning by doing”**

- **International expertise and programmes in the area of entrepreneurship education (...)** should be further disseminated (...). Schemes based on **learning by doing**, including the creation of **mini-companies** by the students, should be further promoted and be widely available **at all levels of education**.

Some **international networks and NGOs** are currently disseminating entrepreneurship education among young people across Europe, by means of partnerships with the business world and with a certain degree of support from the public sector. At the level of primary and secondary education<sup>11</sup>, a number of national organisations are promoting – under the umbrella of networks such as *Junior Achievement-Young Enterprise (JA-YE)* and *EUROPEN* – programmes in schools based on an early approach to the world of business and on the concept of “learning by doing”, for example by means of case studies, mini-companies and practice firms.

In particular, almost all countries surveyed report that *Junior Achievement-Young Enterprise* programmes are applied at primary, secondary or tertiary level of education.

**Junior Achievement-Young Enterprise (JA-YE Europe)**<sup>12</sup> brings together non-profit organisations from 37 European countries. The aim of this network is to help diffuse an entrepreneurial attitude among young students. Among their activities, members of “*JA-YE Europe*” organise school programmes at national level based on “learning by doing”, by means of students creating and running mini-companies during one school year. These are real enterprises operating in a protected environment, producing and selling real products or services. Other *JA-YE* programmes have been developed for primary and for secondary education, however universities may also participate. European events are organised on a regular basis<sup>13</sup>.

A **Practice Firm** is a training method based on the simulation of entrepreneurial life in order to study the changing operations and the preconditions of running a successful enterprise. The students plan and set up the operational system of an enterprise and run it like a real firm. They have various roles as managing director, manager of sales, marketing, accounting etc. according to the organisation of the firm.

---

<sup>11</sup> Other networks, like **JADE** (The European Confederation of Junior Enterprises), promote entrepreneurship education at university level.

<sup>12</sup> The international networks “**Young Enterprise Europe**” and “**Junior Achievement**” merged in September 2002. It is probably helpful to clarify that while Junior Achievement programmes are especially designed for primary schools, and are generally based on an early understanding of the world of business, on case studies and learning by playing, Young Enterprise programmes are mostly applied in secondary schools (and in some cases at university level) and have as a main instrument the mini-company programme, whereby students set up and run a company during one school year.

<sup>13</sup> [www.ja-ye.org](http://www.ja-ye.org)

The roles change so that the students have the opportunity to work in different positions. Every practice firm has a real firm as a mentor company. The co-ordinating organisation for worldwide practice firm education is **EUROPEN**<sup>14</sup>.

In a number of countries (e.g. in the **Czech Republic, Estonia, Latvia, Lithuania, Hungary and Poland**) *Junior Achievement* programmes are by far the most important existing activity for the promotion of entrepreneurship at the level of **primary school**. This situation is particularly evident in the Acceding and Candidate Countries of central and eastern Europe, where in the absence of a tradition for economic studies and entrepreneurship international programmes like *Junior Achievement* have rapidly filled the gap.

In **Estonia**, for example, the *Junior Achievement programme*<sup>15</sup> K-6 is taught in approximately half of primary schools. Students learn by playing and their attitudes are shaped into more entrepreneurial ones. These lessons are popular among kids and raise their motivation to learn at school. Moreover, some elements of this programme have been moving slightly into the main curriculum, and are also taught in different programmes at primary school. This way most of the students get some entrepreneurial insight.

In **secondary education**, too, the contribution of programmes promoted by these networks (especially mini-companies) is significant in most European countries (**Belgium, Estonia, Norway, Sweden, UK**, to mention only a few).

It should be noted that, although these activities are in some cases supported by the educational authorities, they are driven not by the education system itself but by external actors (e.g. members of *JA-YE* and supporters from the business world). Besides running specific programmes in schools, these organisations may also act in some cases as drivers of change in the educational policies at national level. For instance, in **Estonia**, *Junior Achievement* and the Foundation for Vocational Reform are preparing a programme for entrepreneurship (including mini-companies) in vocational schools, with the objective of having it approved by the Ministry of Education and Science.

Also, programmes like *Junior Achievement - Young Enterprise* contribute in several countries to providing specific training to school teachers.

The methodology of practice firms is also well developed in a number of countries (such as **Austria, Bulgaria, Czech Republic and Finland**), and it is particularly widespread in vocational schools of secondary level.

In **Austria**, practice firms have been introduced in the state-prescribed curricula for vocational intermediate and higher secondary schools and colleges either as a compulsory (in Schools and Colleges of Business Administration) or as an optional subject. For more than 13 years, over 1200 training firms have been run in Austria as part of the various curricula and under the umbrella of the *Austrian Centre for Training Firms*. In these firms, entrepreneurial thinking and acting is seriously simulated.

---

<sup>14</sup> [www.europen.info](http://www.europen.info)

<sup>15</sup> This is an American programme that has been adapted to the local context. More information can be found on the Junior Achievement International website: [www.jaintl.org](http://www.jaintl.org)

As regards **mini-companies** and **practice** or **virtual firms**, the most important and widespread programmes are those promoted by international networks like *JA-YE*, *EUROPEN*, etc<sup>16</sup>. In some countries, (e.g. **Belgium**) only members of these organisations provide programmes based on student companies. Some national programmes also exist, but they are normally applied on a smaller scale. One exception is **Ireland**, where a number of state programmes use the methodology of mini-companies (examples are the Transition Year Programme and the LCA). In **Germany**, the *JUNIOR* programme was developed in cooperation with *Young Enterprise Europe*, while further programmes are applied in individual regions. In some countries, like **France** and **Spain**, specific programmes based on a similar concept are rather successful at regional level, such as "*Apprendre à Entreprendre*" in Nord Pas de Calais and "*Empresa Joven Europea*" in Asturias (*more information is provided under Section 4.6*).

Quantitative data are available on the participation of schools and students in these programmes. In **Sweden**, during the school year 2001/2002, 10% of all classes in upper secondary school participated in the *Young Enterprise* programme, with about 10,000 students managing 2500 mini-companies. In **Estonia**, about one half of all primary school have a *Junior Achievement* activity, and approximately 10% of higher secondary schools use mini-companies.

In some countries these programmes receive significant financial support from the public sector (for example, in **Austria**, **Germany**, **Norway**, **Sweden** and the **UK**). In **Norway**, public funding to *Young Enterprise Norway* is granted by the Ministry of Local Government and Regional Development, the Ministry of Trade and Industry and the Ministry of Education and Research. This support was increased in 2002, and *Young Enterprise* has developed new material and methods for all school levels. In **Germany**, the national Ministry of Economics and Labour supports financially certain programmes such as *JUNIOR*. Furthermore some regional Ministries of Education or Economy support special programmes in their federal states. In **Austria**, the government sponsors the running of training firms several hours a week during one year for all pupils in schools and colleges for business administration (where this is a compulsory subject) and in other institutions of secondary level (on an optional basis).

Support from the public sector can also take forms other than funding: for example in **Lithuania** it is recommended by the Ministry of Education for all vocational training schools to participate in the *Junior Achievement-Young Enterprise* mini-company programme.

In some countries activities based on student-companies are embedded in the education system. In **Ireland**, under the national curriculum, programmes like the *LCVP* and the *Transition Year* offer students the opportunity to experience entrepreneurship through the creation of mini-companies.

In the absence of a national structure or strategy for entrepreneurship education developed internally by the education system, supporting these programmes seems to be an effective method of spreading the enterprise spirit in schools. The format and

---

<sup>16</sup> JADE for tertiary level education.

methodology are already available, and there is no need to develop new programmes or teaching material. However teachers also need to be prepared, although organisations like *JA-YE* provide themselves some teacher training, and/or use tutors coming from the business world.

Building successful private-public partnerships is a crucial aspect of promoting entrepreneurship education. These programmes, which draw support from the business world in various forms, from funding to active participation of business people in the teaching, provide some possible models of cooperation.

In many countries, an increase is foreseen in the application of international programmes based on learning by doing and student-companies (e.g. in **Austria, Estonia, Greece, Iceland, Latvia, Lithuania, Norway**). This will happen normally on the initiative of national members of such networks, and only in a very limited number of cases thanks to greater support from the public sector (**Norway**).

A specific analysis of programmes based on mini-companies has been launched by the Commission, in cooperation with the national authorities, in January 2004.

#### *Conclusions:*

Some important and widespread programmes are promoted at European level by dedicated networks and NGOs. As these activities provide a well-established methodology for delivering entrepreneurship education in schools, **public support** could be increased and assume a more regular feature. Support may be given not only - and not necessarily - in the form of funding. There is also a need for improved recognition at national level. The curriculum should offer more opportunities to include these programmes coherently into schools' activities, and incentives and motivation should be provided also by means of training for teachers. Moreover, a more certain legal status is needed for student companies in some countries (e.g., **Bulgaria, Estonia, Hungary**). Examples of what can be achieved through cooperation between the public sector and these organisations should be disseminated.

In order to ensure continuous development, there is a need to further increase the number of **private partners and businesses** involved in these activities. This could be seen – and promoted – as an important aspect of corporate social responsibility, as young people represent the future of Europe.

In the end, schools should be able to decide between developing their own activities on entrepreneurship or using existing programmes such as those proposed by several networks and NGOs in Europe. Of course, these programmes offer a model that should be adapted to the local environment. It is important that schools have the possibility to choose among a wide range of different options.

Finally, although some evidence of results achieved by activities such as student-companies has been produced at a national level<sup>17</sup>, the **impact** of these programmes needs to be further evaluated.

---

<sup>17</sup> For instance, Young Enterprise Norway has recently run an evaluation of the results of the student-company programme in upper secondary schools, showing that 9,7% of participants (responding to the survey) have established their own company after finishing school.

### 3.4. Training the Teachers

- *The provision of specific **training for teachers** needs to be greatly increased (...)*

Information received confirms that in most countries there is **no strategy in place** at present aiming to promote teacher training on entrepreneurship. There are, however, sporadic initiatives, and some rare examples of a global approach, while it is not yet possible to assess some recent developments.

In **Austria** this type of training is reported to be available both as initial and in-service training, especially for teachers in vocational schools, where the offer has been increased. In **Belgium**, an important initiative has been taken by the UWE (Union Wallon des Entreprises). In **Denmark** a development programme in this area is under way building on partnerships between schools, teacher training colleges and companies, and will be tested in 2004/2005. In **Finland**, in-service training on entrepreneurship has been increased. Also, an optional module is being developed and will be available in all initial training. In **France**, in the framework of a recent agreement between the Secretary of State for SMEs and the Minister for National Education, there is a plan to support teachers through training and awareness-raising measures: these will include the introduction of modules on business creation in teacher-training programmes, and periods of immersion in businesses. In **Greece**, the Education for Entrepreneurship Programme to be implemented in Secondary Vocational Education institutions has a “training of trainers” component. In **Hungary**, a significant initiative has been taken within the PHARE programme. In **Ireland**, in-service training is available in the context of established programmes like the LCVP. In the **Netherlands**, central government subsidies are available for short training courses. In **Poland**, an initiative was taken back in 1998 by the Ministry of Education, with over 14,000 teachers trained in economics and entrepreneurship. In **Slovenia**, there is a catalogue of training programmes for teachers, supported by pedagogical material, ranging from developing entrepreneurial attitudes and skills to more specific business courses. In **Spain**, teacher training is especially developed within the initial vocational training system of secondary level. Also, a Guide has been recently published providing teachers with a methodology for teaching entrepreneurship to 15-to-16 year-old students in compulsory secondary education, and including thirty educational activities.

The most important and structured activity takes place probably in the **UK**, where in **Scotland** within the Schools Enterprise Programme for primary level (*see Sections 3.2 and 4.7*) the objective of the Scottish Executive is to have at least two teachers trained in enterprise activities in each school by 2004. Also, in **England** teacher training will be a component of the activities planned as a follow-up to the Davies Review (*see Sections 3.5, 3.6 and 4.10*).

In a number of countries, teacher training is developed by members of *Junior Achievement - Young Enterprise* as a part of their programmes.

#### *Conclusions:*

There is a growing awareness of the importance of providing specific training to teachers, and some action has been taken in a number of countries. However, initiatives going in this direction appear in most cases to be either **limited in scope or**

**not systematic.** Examples of a coordinated effort or of a global strategy are so far rare.

Moreover, and apart from few exceptions, **no major new developments are foreseen in this area**, at least in the short term. As the implementation of entrepreneurship activities in the schools relies significantly upon the initiative of teachers, this may well be an important obstacle in the near future. In fact, it is unlikely that much progress will be achieved without fully involving the teachers in the promotion of entrepreneurship, and providing them with specific training and pedagogical material. This is an issue that requires more attention and dedication from teacher training colleges, educational authorities, school directors and all other actors concerned.

### 3.5. *Creating a global framework*

- A **framework** for entrepreneurship education needs to be put in place at national (or regional) level where specific initiatives can be developed, allowing for a long-term perspective, sustainability and eventually for a real impact (...).

At present, there is in most cases **no global framework** at national level for the development of entrepreneurship education. In some countries – and depending on the level of education – the national curriculum allows for the implementation of entrepreneurship activities. However, policy measures going in the direction of providing a structure, sustainability and a long term perspective for entrepreneurship activities have so far been scarce, with some exceptions (*see also Section 3.6.*).

Nonetheless, in a number of countries some **progress** is reported or actions are going to be launched aiming to improve this situation.

In **Austria** the dual education system is an indicative framework, and the curricula of all vocational schools and colleges are drawn up by the Federal Ministry of Education, Science and Culture in cooperation with social partners and experts from business and universities. In **Belgium**, the Ministry of Economy and SMEs, through the plan "*4X4 pour Entreprendre*" has expressed its will to structure and coordinate a series of initiatives in the region of Wallonia. In **Denmark**, a national strategy aiming to embed entrepreneurship into a common framework is due to be finalised by the end of 2003. In **Germany** a commission has been created with experts from the Ministries of Economics and the Ministries of Education from each federal state, working to find ways to integrate an intensified economic education into the existing curricula. In **Finland**, entrepreneurship is included in the core national curricula that are being adopted for all levels of education. In **France** some associations or structures play this role and bring some coherence into the system, such as the "*Observatory of pedagogical teaching practices*" and the "*Académie de l'Entrepreneuriat*". In **Ireland**, the City and County Enterprise Boards (CEBs) were assigned responsibility for the development of an Enterprise Culture in Ireland, under the National Development Plan. In **Norway** the Ministry of Education and Research has developed (already in 1997) a strategy plan for entrepreneurship in education, which has been recently updated. In **Poland**, a national framework for entrepreneurship education was established in 2002, and entrepreneurship is now part of the curriculum of secondary schools. In **Slovenia**, the "Programme for Developing Entrepreneurship and Creativity in Young People" marks the beginning of systematic work. In the **UK**,

there will be a statutory requirement in England to include work related education and learning about enterprise within the curriculum for 14-16 year old pupils from September 2004. From 2005, all pupils in the Year 10 (15/16 years old) will have 5 days' experience of enterprise activity<sup>18</sup>. In Scotland, a response from the authorities to the report 'Determined to Succeed' should set out a framework for the future.

In some cases a review of the national curriculum is planned or is under way (**Bulgaria, Czech Republic, Denmark, Finland, Ireland, Lithuania, Spain**).

In a number of countries, especially in central and eastern Europe, the only existing framework for these activities is provided at the moment by **external organisations**, in particular *Junior Achievement - Young Enterprise*.

#### *Conclusions:*

Certain initiatives being taken by national and regional authorities are trying to bring some coherence in the promotion of entrepreneurship through education. Still, most of the actions taken in this field appear to be partial or isolated, not included in a broader strategy looking at the future of education.

There are some **promising signs of a global approach**, involving different departments in the public administration and other interested actors. However, most initiatives going in this direction are still in a starting phase, and it is not possible at the moment to anticipate what will be their final outcome or impact.

In general, **the effort is still limited and needs to be greatly increased**. Revising the curriculum is only a possible first step. In addition, measures of active support addressing schools and teachers are necessary. These **measures should be part of a broader strategy coming from a joint effort by different departments**, should be sustainable and have well defined objectives.

More information on recent developments and on planned new measures is given in *Sections 3.6. and 6.*

### **3.6. Translating policy commitment into concrete measures**

- *Although good practice should be adopted on a voluntary basis, **policy commitment needs to be translated into concrete action**. This may involve changing the national curriculum (...) and a range of **support measures** to encourage schools to get involved in education for entrepreneurship (...).*

Measures that could be adopted by a central (or regional) administration in order to promote the teaching of entrepreneurship may take different forms and include, among others:

- Revising the national curriculum;
- Providing schools with incentives (financial or other);

---

<sup>18</sup> The definition of an 'enterprise experience' used in the **UK** is broad. It covers activities that help to develop increased skills for employability and self-employment, and can take the form of working on a project or setting up a mini business. Therefore, the view of entrepreneurship at school is that this is a subset of the wider notion of an enterprise activity.

- Making teaching material available;
- Supporting NGOs and other organisations that promote these programmes;
- Favouring links between schools and the world of business;
- Awareness-raising activities and disseminating good practice;
- Training and motivating the teachers.

While in some cases the **national curriculum** has been - or is going to be - adapted in order to include entrepreneurship as a horizontal aspect or as a topic, there are few recent examples of such measures, at least in comprehensive education (**Czech Republic, Finland, Norway, Spain**). In some cases, the curriculum of vocational schools of secondary level has been recently reviewed, and includes entrepreneurship as a subject (**Austria, Bulgaria, Finland, Hungary, Lithuania, Turkey**).

However, changing the curriculum is not seen in most cases as the main problem, at least in primary and comprehensive secondary education. In fact the national curriculum provides general guidelines and is often broad enough to make the inclusion of entrepreneurship teaching possible. More important obstacles are the lack of teaching material, insufficient motivation of the teachers, the absence of specific training.

**Incentive measures** from central or regional governments can take the form of financing pilot projects in the schools (e.g. in the **Netherlands** and **UK**), supporting links between schools and enterprises (e.g. **Finland, Germany, Sweden, UK**), providing teaching material (e.g. **Austria, Finland, Netherlands, Spain**), or supporting international networks and organisations promoting entrepreneurship education (e.g. **Austria, Estonia, Germany, Latvia, Norway, Poland**). However, support to international networks and programmes is reported to take place in most cases on a limited, or on a project basis.

Disseminating good practice seems to be one preferred strategy (for instance in the **Czech Republic, Finland, France, Germany, Greece, Netherlands, UK**) as it does not require the use of large financial resources and builds on the autonomy of schools. However, structured initiatives going in this direction are still limited. Recent developments in **France** and in the **Netherlands** seem particularly promising in this respect.

Training teachers as a policy strategy is still rare. One positive example can be found in the **UK**, where in **Scotland**, as a part of the Schools Enterprise Programme supported by the Scottish government, primary schools teachers are offered specific in-service training. The objective is that every school should have at least two teachers trained in enterprise activities by 2004 (*see Section 3.4.*).

A short **overview** is provided here of some **policy measures** that have been adopted by national or regional authorities in various countries.

In **Austria**, within the 2002 curriculum reform for vocational schools and colleges, “education for entrepreneurship” was introduced as a new principle. In commercial schools special curricula for entrepreneurship education are currently being piloted and are expected to be incorporated into the regular school system from 2004/2005. Also, the Federal Ministry of Economy and Labour and the Federal Ministry of

Education, Science and Culture support the "Initiative for Teaching Entrepreneurship" project for primary and secondary schools, developed in partnership with the National Foundation for Teaching Entrepreneurship (New York, US). From autumn 2002 to summer 2004, teaching and learning materials are being produced, translated and adapted.

In **Belgium**, in order to promote better coherence between existing initiatives, the Ministry of Economy of Wallonia has launched the plan *4 x 4 pour Entreprendre*, which has one objective in stimulating the spirit of enterprise in young people. Similar initiatives are being developed by the Flemish Ministry of Economy, for instance aiming to integrate the concept of mini-companies into the curriculum.

In **Bulgaria**, the new curriculum for vocational (non-economic) secondary schools has - starting from the autumn of 2003 – entrepreneurship as a compulsory subject in the 13<sup>th</sup> grade.

In the **Czech Republic**, the National curriculum reform for all school levels is being prepared by the Ministry of Education, Youth and Sports. It is planned that entrepreneurship education will be introduced into the national curriculum.

In **Denmark** the government is currently developing a national strategy on entrepreneurship involving several different ministries. A policy document is due to be published by the end of 2003. Education for entrepreneurship will be included in a common framework for the promotion of entrepreneurship.

In **Estonia**, the public administration is partly funding the annual Student Company Trade Fair. Also, the Ministry of Economy and Communication has announced that it will support the process of working out a legal basis for student companies.

In **Finland**, the administration is engaged in creating conditions and providing pre-requisites for practical measures. Entrepreneurship has been included in the new core curricula for all levels of education, and provision of specific teachers' training has been increased. A national entrepreneurship project will be started in early 2004 with the aim of increasing regional cooperation between businesses, schools and teachers. The National Board of Education is launching an entrepreneurship web site for the use of schools that will include teaching material and is designed to promote cooperation and networks.

In **France**, the Observatory of teaching practices for entrepreneurship in secondary and higher education, intends to run an inventory of institutions that are involved in this type of teaching, to identify actions, collect data on programmes and courses, disseminate good practice.

In **Germany**, initiatives are being developed at a regional level. In several *Bundesländer* (Bremen, Berlin, Brandenburg) national agencies "school/economics" were built up by ministries, employers' federations and private firms to strengthen contacts between school and industry and to initiate and coordinate projects (such as mini-companies). In Brandenburg, the curriculum supports a "culture of entrepreneurship and independence" and recommends that students participate in a student company in the 9<sup>th</sup> or 10<sup>th</sup> year of education. The Bremen Ministry founded an expert group consisting of members from the federal Ministries of Education,

Ministries of Economy, the Unions, the Employers' federations and the Trade corporations in order to increase economic education at school.

In **Iceland**, innovation education is part of the national curriculum for primary level, and about a third of all schools participate to the programme "*Young inventors competition*".

In **Ireland**, programmes like the *Leaving Certificate Vocational Programme (LCVP)*, *Leaving Certificate Applied (LCA)* and *Transition Year* offer students the opportunity to experience entrepreneurship modules. Currently, the National Council for Curriculum Assessment (NCCA) is reviewing the Junior and Senior Cycle curriculum in post primary schools.

In **Latvia**, after the introduction of the National Standards of Compulsory Education in 1998 and 2001, economics has become a compulsory subject in the curriculum that can be used for the teaching of entrepreneurship.

In the **Netherlands**, in the period 2000-2002 more than 100 entrepreneurship projects have been subsidised, at all education levels from primary school to university. The present strategy is now focused on how to disseminate these pilot projects to other schools in the country. In the first phase, good practices will be promoted in the vocational and higher education sectors. Other levels of education will follow.

In **Norway**, the focus has been on further revising the curriculum that, since the reforms in 1994 and 1997, has aimed to promote the teaching of entrepreneurship. Coordinated financial support from three different ministries to *Young Enterprise* activities is another example of a concrete measure. The project by the Ministry of Education and Research "*Entrepreneurship on the timetable*" has also developed material and strategies for student enterprises in primary and secondary school. The Government has recently adopted an action plan for Innovation, education for entrepreneurship being one of the priority areas.

In **Poland**, a national framework for entrepreneurship education was established by the Ministry of Education in 2002. On that basis, the national curriculum of secondary level includes now entrepreneurship courses (2 hours per week in comprehensive and technical schools, 1 hour per week in initial vocational schools). The Ministry of Education has also defined regulations for integrating existing initiatives of non-governmental organizations into the system of public education and is supporting entrepreneurship through cooperation with various organisations active in this field.

In **Slovenia**, since the year 2000 different Ministries are jointly supporting a "*Programme for developing entrepreneurial culture and creativity among young people*", with around 4500 young people involved each year at all levels of education.

In **Spain**, the Organic Act 10/2002 on Quality in Education has the objective of promoting entrepreneurial skills and self-employment in comprehensive non-university education. On that basis, a revision of the national curriculum for the primary and secondary levels has been undertaken, whose concrete application will rely upon the 17 autonomous communities.

In **Sweden**, the National Agency of Education has an assignment from the government to develop an action plan for the promotion of contacts between primary schools and the community. The Swedish Business Development Agency, NUTEK, is currently running a programme on entrepreneurship addressing young people and links between schools and business. Furthermore the Government has recently given NUTEK a mission to develop an extended national programme for entrepreneurship.

In **Turkey**, entrepreneurship is included in the national curriculum for vocational and technical schools of secondary level; this type of teaching is provided as a compulsory or as an optional subject.

In the **UK**, in **England** the Government has accepted the recommendations of the Davies Review on "Enterprise and Economy in Education", and the White Paper on 14-19 age Education, published in January 2003, makes an explicit commitment that all pupils aged 14-16 will in the future learn about work and enterprise through a range of suitable experiences through and across the curriculum. This will be introduced through pilot projects during 2003-2005, and will be implemented in every secondary school by 2005/2006. Public funding is allocated in addition to Education Business Links Organisations, and to Enterprise Advisers that will assist teachers and schools in introducing enterprise education. In **Scotland** the Schools Enterprise Programme is a joint-venture partnership between the Scottish government and the business community. The three-year programme will offer every primary school pupil at least two enterprise experiences by the end of their primary education. The recent review of enterprise in education 'Determined to Succeed' is currently being considered by the authorities.

In some countries (like **Greece** and **Portugal**), current efforts seem to be mostly concentrating on the tertiary level of education (universities) and on more focused training on how to start a business. In these countries, general awareness still needs to be increased of the importance of entrepreneurship teaching in lower levels of education.

In **Italy**, after the end of the mini-company programme "IG students" (closed down in July 2002), which was supported by the government and had a wide application all over the country, there is at the moment no national strategy or programme focussing specifically on entrepreneurship education, while there are initiatives taking place at a local level. However, action has been taken by national authorities targeting technical and vocational schools of secondary level in *Objective 1* areas, by means of supporting the application of virtual firms and promoting links between schools and businesses.

In a number of countries new initiatives are being planned. Further detail on future perspectives is given in *Section 6*.

However, on a European scale ongoing and planned new initiatives **do not seem to be altogether sufficient for making entrepreneurship education widespread in the school system and generally available to students.**

### *Conclusions:*

The enquiry shows that - although policy measures aiming to promote entrepreneurship education have been so far adopted only on a limited basis - **there may be different ways of moving forward in this area.**

Entrepreneurship should be included in the curriculum where relevant, depending on the way the education system is structured and on the specific situation in each country. In fact, an important initiative taken by several administrations has been to **revise the national curriculum**, although only in few cases all levels of education have been addressed coherently.

In any case, **support measures are needed as schools and teachers have a large degree of autonomy.** It is important that the school as a whole is committed to entrepreneurship education. In this respect, measures of active promotion have been taken so far only on a limited basis.

**Exchange and dissemination of good practice** is a useful tool, but is not being applied extensively. Efforts need to be increased, both at national and at European level. Disseminating good practice can be a realistic way of achieving progress, by promoting awareness and greater motivation among educational institutions and teachers.

One important obstacle is still represented by the lack of teacher training: any comprehensive strategy aiming to implement entrepreneurship education should take this aspect into account. At present, measures taken for the development of **teaching material** and for **training the teachers** appear to be sporadic and still insufficient.

Besides action to be taken directly by the relevant authorities, **initiative from international networks and NGOs** should be used as well. Programmes like *Junior Achievement*, mini-companies, practice firms and others should be recognised and supported by the public administrations, and be better integrated into the curricula, as they provide well established methodologies that can be adopted by the schools. These programmes have also proven a good capacity of mobilising private partners and supporters. **Private-public partnerships** are crucial to the development of entrepreneurship education: this aspect needs to be further promoted, and financial resources should be identified to be matched by private funds, so that public initiative can act as a catalyst for private participation in education.

### **3.7. Collection of quantitative data**

- *It is crucial for future policy action in this area that **precise, comprehensive and objective quantitative data** are developed (...).*

The situation as regards improving the collection of quantitative data on entrepreneurship education at all levels (such as the number of schools involved in entrepreneurship activities, the number of students participating, etc.) is much the same in all countries surveyed: **there are at the moment no concrete plans for moving forward in this direction.**

Currently, data are available only as regards specific initiatives and some well-known programmes. For instance, members of international organisations like *Junior Achievement-Young Enterprise* and *EUROPEN (Practice Firms)* normally have

quantitative information about their own programmes. Also, data on the application of a certain number of activities developed at national or at local level can be obtained. However, aggregate figures for entrepreneurship education as a whole are missing. Quantitative data measuring the application of some specific programmes could in some cases be taken as useful indicators (*see Section 5*), but they will not of course provide a global view.

Quantitative information would have to be collected in order to start a permanent process, and to measure progress at a national and at a European level. The relevance of gathering quantitative data is questioned by **Austria**, as it is argued that quantitative figures – if not supported by qualitative information - could be misleading, and will not disclose the success of measures implemented.

In general, difficulties in collecting data at a national level may be due to:

- the need to allocate specific human and financial resources to this task;
- a lacking or unclear definition of entrepreneurship education;
- a reality where initiatives are often developed independently by the schools and by actors external to the education system, which makes it difficult for central administrations to gather comprehensive information.

Other major obstacles may be related to the following: the issue depends on different agencies and ministries; insufficient coordination between services in the national administrations; a decentralised system; the will to minimise the burden on schools.

Almost all countries report that they currently have **no plans** for extensive collection of data, with some partial exceptions.

In **Finland**, a data collection will be started soon thanks to a common effort from educational institutions, the National Board of Education, the Ministry of Education and Statistics Finland. More data should thus be available by 2005-2006.

In **France**, the recently established Observatory of teaching practices for entrepreneurship in secondary and higher education aims to identify actions and to collect data on programmes and courses. It is not yet known how far this instrument will make it possible in the future to obtain comprehensive quantitative data. As of today, around 40 actions at secondary level and 145 actions at tertiary level have been identified. More complete data will be available within 2 or 3 years.

In **Greece**, the Ministry of Education intends to tackle the problem and is considering specific proposals aiming at producing indicators that will be consistent with those of other member countries.

In **Norway**, in the framework of the action plan for Innovation, a working group has been set up that will - among other issues - discuss a permanent strategy for collecting data on entrepreneurship education.

In **Poland**, the Ministry of Education started this year a collection of data on entrepreneurship education in secondary schools, among others, as a part of the plan of the government “Entrepreneurship – Development – Employment II” for the years 2002-2004. This will embrace 5% of all schools at comprehensive secondary level and 10% of initial vocational training schools. The aim is to collect qualitative and quantitative information, in particular about courses recommended by the Ministry of Education. The exercise should be completed in April 2004.

In **Turkey**, KOSGEB (the SME Development Agency) was given in 2003 the task of starting a collection of data at national level, as a first step of a new action plan. First results should be available at the end of 2004.

In the **UK**, in **England**, as a result of the implementation of the Davies recommendations, it is expected that by 2006 much more information on the extent of enterprise education in schools should be available. In **Scotland**, the only national programme, Schools Enterprise, collates information from those schools that have registered enterprise activities. The Executive aims to increase these activities across Scotland in both primary and secondary schools, and data collection will form a part of the roll out of the programme. Comprehensive statistics should be available by the end of 2006. Methods of evaluating future activities will be considered as part of the response to the report 'Determined to Succeed'.

*Conclusions:*

A number of countries report that some efforts will be made in this direction and that more data might be available in the coming years, but either have no concrete plans at the moment or envisage partial initiatives with a rather limited scope.

In general, and apart from limited developments mentioned above, **no major activities of data collection are expected in the short term**, nor it is likely that in the next two or three years comprehensive data will become available.

This situation implies that in the shorter term – for the purpose of **measuring progress** – qualitative indicators will mainly need to be used, for example assessing whether some essential pre-requisites for the development of entrepreneurship education have been established or not, as well as partial quantitative indicators, i.e. assessing the application of a limited number of well identified (or identifiable) programmes rather than the whole of entrepreneurship related activities taking place in schools.

This subject is further developed in *Sections 5 and 6.3*.

#### **4 Some examples of global strategies or policy measures adopted by the national (or regional) authorities in this area**

A number of examples of good practice concerning specific programmes or teaching methodologies were highlighted during the previous phase of this project, and can be found in the Report of November 2002.

The objective of this document is to focus on policy action. Therefore, some examples are proposed here of coherent strategies and measures developed by governments as an indication of how the relevant authorities are tackling this issue, and as a possible source of inspiration for policy-making in other countries as well. In fact, exchange of experience and best practice is crucial in this phase of development of entrepreneurship education in Europe.

These cases intend to show how the promotion of this type of learning can be systematically addressed in one country or region, the focus being on national or regional policies, and not on action taking place at the level of a single school or at a very local level.

A few examples of a coherent strategy, implemented either at a national or at a regional level, were also included in the November 2002 Report and are not described again in this document. In particular:

- In **Spain**, the initial vocational training system has self-employment as an explicit objective. Programmes are jointly established by the Ministry of Education and by the Autonomous Regions, with the possibility to adapt contents to the local environment.
- In **Sweden**, the '*PRIO 1*' project, run by the County Administration of Västerbotten supports more than 100 local projects running in the 15 municipalities of the region.

More detailed information about these initiatives can be found in the previous Report<sup>19</sup>.

##### **1. Issue:**

Disseminating the information and promoting the exchange of good practice are typical examples of tasks that can be effectively performed at the level of central government.

##### **Example:**

###### **- *Observatory of teaching practices for entrepreneurship (France)***

An observatory of teaching practices for entrepreneurship in secondary and higher education has been created by the French government. The Observatory will focus on existing practices aiming at raising students' awareness and at providing specific

---

<sup>19</sup> Expert Group Report of November 2002, pages 47 and 48.  
[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/training\\_education/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/training_education/index.htm)

training on entrepreneurship, and intends to inventory educational institutions that are involved in these activities. The main objectives are to identify actions, collect data on programmes and courses, disseminate practices and information on entrepreneurship teaching in order to facilitate the exchange of experiences and also make their evaluation possible.

The Observatory works under the supervision of a steering committee composed of three Ministries and several agencies and associations.

The focal point of the Observatory's work is a national database, which in time will include all levels of the education and training system: primary, secondary, higher and continuing education.

In April 2002 an Internet site was created<sup>20</sup> providing free access to the database and to a number of resources concerning training in entrepreneurship (list of research on training in entrepreneurship, bibliographical references, reports of experiences and teaching material).

At the time of writing, around 40 actions have been identified at secondary level and 145 at tertiary level. More complete data will be available within 2 or 3 years.

*This is an interesting, both systematic and coordinated approach to ensuring promotion, monitoring and evaluation of entrepreneurship education in one country.*

## **2. Issue:**

Central governments can facilitate the development of entrepreneurship education by offering incentives to schools.

### **Example:**

#### ***- Special Commission on 'Entrepreneurship and Education' (the Netherlands)***

The creation of a special Commission on 'Entrepreneurship and Education' (from primary to university level) aims to promote pilot projects and to collect good examples that can be easily adopted by other educational institutions. Financial support is provided by the Ministry of Economic Affairs for the development of learning methods and materials, and for other activities (such as seminars, teachers' training, etc.). The idea is that central government should not impose, but facilitate.

In the period 2000-2002 more than 100 entrepreneurship projects have been subsidised, at all education levels (from primary school to university). The subsidies have now been stopped, as continuation would only lead to other 'similar' projects. The actual strategy is focused on how to spread these pilot projects to other schools in the country. New in this approach is that the national authorities will work together with the project-leaders, as they are the ones who know best about work in practice and organisation needed, how to reach concrete integration in the curricula, how to get the commitment of several parties (including businesses), etc. All this will be summarised in practical guides for the schools. Finally, a promotional activity will be implemented, so that these projects they can be disseminated as ready and "tailor made" modules or programmes.

---

<sup>20</sup> [www.entrepreneuriat.net](http://www.entrepreneuriat.net)

In the first phase, good practice will be promoted in the vocational and higher education sectors. Depending on the results achieved, the same exercise will take place for primary and secondary education during 2004.

*This measure provides support and stimulus for entrepreneurship education, but does not impose a particular model.*

### **3. Issue:**

A central administration can act coherently in order to create framework conditions and pre-requisites for the application of practical measures.

#### **Example:**

##### ***Creating a framework for practical measures (Finland)***

In Finland, Entrepreneurship has been included in the new core curricula for primary, secondary and vocational education, and provision of specific teachers' training has been increased.

In 2002 the Ministry of Education set up an entrepreneurship steering group (up to 2005) that will develop and coordinate entrepreneurship at different levels of education. It has 17 members representing different ministries, organisations and educational administrations and will concentrate on three themes: strengthening regional networks, producing entrepreneurship materials and enhancing information about entrepreneurship, especially by means of continuing education and training and contacts with business and industry.

A national entrepreneurship project will be started in early 2004 with the aim of increasing regional cooperation between businesses, schools and teachers. The National Board of Education is launching an entrepreneurship web site for the use of schools that will include teaching material on entrepreneurship and is designed to promote regional cooperation and networks.

*A set of different actions promoted by the national authorities, all contributing to create a favourable environment to the teaching of entrepreneurship.*

### **4. Issue:**

The central government can adopt a global strategy for implementing entrepreneurship in education at all levels.

#### **Example:**

##### ***- National strategy and action plan for innovation (Norway)***

The government's goal in Norway is to implement entrepreneurship in education at all levels. This became the foundation for the strategy plan developed by the Ministry of Education and Research in 1997, which currently guides education for entrepreneurship at primary, secondary and tertiary level.

This policy is accomplished as a common vigorous pull between the education sector, the remaining public sector and the business and industry sector. Major commitments include, among others:

- Pupils' enterprises (in primary and lower secondary school);

- Young enterprises (in higher secondary level);
- Partnership agreements between schools and businesses;
- Courses in working life knowledge and entrepreneurship;
- One-year courses in entrepreneurship for undergraduate students.

Young Enterprise Norway started in 1997 offering students from upper secondary school the opportunity to participate in the Company Programme. Since then, it has developed an active organisation with a central administration and local administrations in each county. Public funding to Young Enterprise Norway is granted by the Ministry of Local Government and Regional Development, the Ministry of Trade and Industry and the Ministry of Education and Research. This support was increased in 2002, and Young Enterprise Norway has developed new material and methods for all school levels.

In 1998 the Ministry of Education and Research initiated a project called “Entrepreneurship on the timetable”. This project has developed material and strategies for student enterprises, as well as courses in “Working Life” with a focus on networking with the local business environment. This initiative will be spread further by the Ministry, the objective being to further distribute this concept to other schools and counties.

Promotion of entrepreneurial skills at all levels of education is given special emphasis by the new Government. In 2002 an Innovation Action Plan was launched that will cover entrepreneurship education, among other themes. A working group in this specific area has been established including representatives from three different ministries. This work should lead by 2004 to a more co-ordinated and comprehensive policy.

*The national strategy ensures a consistent approach and offers a wide range of opportunities. It builds on close cooperation among the different departments, and represents a major commitment to entrepreneurship education and innovation.*

## **5. Issue:**

The mainstream curriculum can be used as a vehicle for introducing enterprise education as a mandatory element of skills learning in primary education.

### **Example:**

#### **- Cartoon "Boule et Bill créent une entreprise" in primary education (Luxembourg)**

In Luxembourg, at primary level, the compulsory 6th-year French-language programme has an entire unit devoted to starting up in business. The unit is based on a strip cartoon, “Boule et Bill créent une entreprise”. This makes the nature of a company accessible to children, using appropriate vocabulary and texts. The cartoon tells how some well-known personalities found their way into business. The adventure helps to explain the role of business in society and introduces some economic vocabulary. Exercises are developed by the students from the contents of the textbook.

The unit is part of the curriculum and is compulsory for all primary schools. The aim is thus that every pupil passing through the Luxembourg primary school system should take this subject.

This programme has also been adopted by schools in the French region of Nord-Pas de Calais.

*The methodology seems well adapted to the needs and interests of the age group. At this age learning through visual symbols can be very effective. In addition this methodology bear resemblance to a world that the child knows already – the world of cartoons and comics. This is an easy way to introduce students to entrepreneurship.*

## **6. Issue:**

A regional Government can act coherently in order to promote entrepreneurship education by funding and supporting the development of programmes at local level, and by adapting the curriculum of schools accordingly.

### **Example:**

#### **- Entrepreneurship education in Asturias (Spain)**

The government of the Principality of Asturias, (pop. 1 100 000) is playing an active role in the promotion of entrepreneurship education. Valnalón, a government company owned by the Department of Work and Industry, works with the Department of Education and Skills designing and implementing entrepreneurship programmes at different levels of education. Terms of collaboration are stated in an Agreement of cooperation. All programmes are entirely funded by the Government of Asturias, which earmarks €500 000 per year for entrepreneurship promotion. Thanks to support from the regional government, Valnalón<sup>21</sup> has designed and developed different programmes for all levels of the education system.

**- Primary education:** *Una empresa en mi escuela (EME)* addresses pupils aged 5-12 years. Main goals are to develop entrepreneurial skills; to establish links between schools and businesses; to promote a cross-curricular approach. From school year 2003/2004, 323 primary schools (8 % of the total in the Region) will participate.

**- Lower secondary education:** *Empresa Joven Europea (EJE)* is aimed at students aged 14-16 years. Throughout a full academic course, students start-up and manage an import-export company. Students will communicate with partner schools abroad, place and dispatch orders and sell imported goods in their local market. The project has been included in the secondary education **curriculum of the region**. As a result, EJE is taught as an optional subject from the 2003/2004 course, when 171 secondary schools in Asturias (20% of the total) will participate.

**- Upper Secondary and vocational training:** *Taller de Empresarios* takes place in “*Bachillerato*” (upper secondary general education) for 17-18 year-olds and in “*Ciclos formativos*” (upper secondary vocational education) for those aged 16-25. Main goals are to instil in the students a flair for entrepreneurship, and to make them consider self-employment as an option. The programme covers all schools in Asturias (both Grammar and Technical schools). In fact, from 2003/2004 it is expected that 100 establishments, i.e. **100%** of secondary schools of this type will participate.

---

<sup>21</sup> [www.valnalon.com](http://www.valnalon.com)

*This is an example of a coherent approach at a regional level, using different instruments and addressing all sectors of education by means of a partnership with an institution specialised in designing training programmes.*

## **7. Issue:**

The authorities can ensure that concrete progress will be accomplished by setting an ambitious quantitative target, to be reached by means of appropriate financial resources, participation of private partners, motivation of schools and teachers.

### **Example:**

#### ***- Schools Enterprise Programme (UK , Scotland)***

In Scotland, the Schools Enterprise Programme is a joint-venture partnership between the local government (Scottish Executive) and the business community. This three-year programme will offer every primary school pupil (currently 2 300 primary schools with 425 000 pupils) at least two enterprise experiences<sup>22</sup> by the end of their primary education. It involves a range of classroom activities designed to fit within the curriculum and help develop skills for the workplace along with supporting an entrepreneurial attitude among young people. Key to its success will be benchmarking of existing good practice through a series of showcase events across Scotland.

The programme is being delivered by a team of around 30 local co-ordinators who will offer direct support to classroom teachers. Seventeen local development plans have been prepared as a template for the programme's development. Quality teaching materials have already been developed to support enterprise education and further materials will be published as the programme is rolled out. A small team will offer national leadership and the initiative includes a research programme into the curriculum and economic benefit of enterprise education.

The Schools Enterprise Programme is half funded and fully supported by the Scottish Executive. Private partners are donating funds.

The target for 2004, when the Schools Enterprise Programme is due to finish, is to have every school actively involved with the programme, with at least two teachers trained in enterprise activity.

*A wide initiative with a big impact on the population of students, and well defined objectives.*

## **8. Issue:**

The authorities can create an appropriate framework by introducing the concepts of creativity and innovation in the curriculum of primary school, while promoting the application of a specific programme on a national scale.

### **Example:**

#### ***- "Young inventors competition" in primary education (Iceland)***

---

<sup>22</sup> For a definition of "enterprise experience" in the UK, see footnote n. 14 at page 24.

In Iceland there is great emphasis on innovation through the "*Young inventors competition*"<sup>23</sup>, which is embedded in the national curriculum with about a third of all primary schools participating. This initiative started in 1991 and the number of schools is increasing each year.

This programme was originally developed from the Swedish "Finn-up" competition. The major aims are to encourage students' creativity; to develop their ideas, and enter them into a competition. The winners receive prizes for designs and inventions.

About 60 of 190 primary schools currently participate in this innovation competition and offer courses connected with it. Almost 2500 ideas were submitted to the competition in 2002.

Although the focus is primarily on the creativity and innovation aspect, a few schools have taken the opportunity to offer a more complete training on how to start and run a business.

*An interesting example of how an established programme can stimulate creativity and innovation in primary school children, through playful and fun activities that are particularly suited to the level of education.*

## **9. Issue:**

The educational authorities can promote entrepreneurship by combining two approaches: including relevant programmes into the national curriculum, and relying on independent initiatives that are embedded in a coherent framework.

### **Example:**

#### ***- Integrating entrepreneurship activities in the curriculum of secondary level (Ireland)***

In secondary school, three programmes are developed at a national level under the auspices of the Department of Education:

- The Transition Year Programme (TYP) is a one-year programme designed to ease transition from the Junior Cycle to a Senior Cycle. It sets out to prepare students for the world of work in a pre-vocational environment, including the development of entrepreneurial skills. The TYP is undertaken by approximately 35% of senior cycle students.
- The Leaving Certificate Vocational Programme (LCVP) has a strong vocational dimension and provides students with the opportunity to realise their potential for self-directed learning, innovation and enterprise. It is targeted at 16-18 year olds, and applied in about 500 schools, with 35 000 students participating.
- The Leaving Certificate Applied (LCA) includes mandatory modules on enterprise that set entrepreneurship in a vocational context. It is targeted at 16-18 year olds, with 6% of senior students participating.

These three state programmes all provide for action learning approaches. Establishing and managing mini businesses, or organising events such as a trade fair, is part of the experience. In addition, many students investigate local small, medium and large

---

<sup>23</sup> [www.innoed.is](http://www.innoed.is)

enterprises. Overall, some 43 000 second-level students engage in work experience each year as part of these programmes.

Activities based on “learning by doing”, for instance by means of students running mini-companies, are embedded in the state-prescribed programmes. Moreover, other non statutory programmes exist in Ireland – developed by a number of different actors – that may receive support from the public sector and be integrated into the existing structure.

*There are different programmes, each with stated and coherent outcomes. These programmes interact and co-exist with new initiatives led by the private sector or by partnerships.*

## **10. Issue:**

The national authorities can give a thrust to the whole system by setting an ambitious target, and by dedicating resources and providing incentives that will make it possible to achieve it.

## **Example:**

### ***- Enterprise experience for 14-19 age students (UK, England)***

The Davies Review of Enterprise and the Economy in Education, which reported to the Chancellor of the Exchequer and to the Ministers of Education and Trade and Industry, recommended in February 2002 that all young people have the opportunity to experience enterprise activity<sup>24</sup> at some time during their school career, with funding sufficient to support an average of five days per pupil. The Government has accepted the recommendations and the policy document published in January 2003 on the future of 14-19 age education, which makes an explicit commitment that all pupils at 14-16 will in the future learn about work and enterprise as a range of suitable experiences through and across the curriculum.

Following the publication of the paper on “14-19: Opportunity and Excellence”, there will be a statutory requirement for work-related learning for 14-16 years old pupils from September 2004, within which ‘enterprise capability will be a clearly articulated outcome of work-related learning.’

The thrust of policy at the moment is to provide funding to secondary schools over the period 2003-2006 to enable the realisation of the entitlement recommended in the Davies Review. This commitment will lead to pilot projects being run during 2003-2005, with full implementation foreseen by 2005/2006. Throughout 2003-2005 a number of schools will be designated as Enterprise Pathfinder Pilots, experience from which will be fed into subsequent years leading to funding being made available to all schools in 2005/2006. Guidance, support materials, access to business support and teacher training will also be covered by this initiative. By 2006, every student aged 14-15 should receive 5 days of enterprise experience.

*An example of government using funding to stimulate and support enterprise education and learning from the experience of innovative school pilots, working in collaboration with business.*

---

<sup>24</sup> For a definition of “enterprise experience” in the UK, see footnote n. 14 at page 24.

## 11. Issue:

Within initial vocational training at secondary level, specific training on how to start and run a business can be particularly effective. Public authorities can promote entrepreneurship education by introducing this concept into the curricula of vocational schools and colleges, and by sponsoring and supporting concrete activities.

### Example:

#### *Entrepreneurship teaching in vocational schools and colleges (Austria)*

The Ministry of Education, Science and Culture is supporting entrepreneurship education by introducing this concept into the national curricula. The ambition is to have this teaching included in all vocational schools and colleges of secondary level.

In Austria initial vocational education and training takes place either in the Dual System (apprenticeship-training) or in vocational schools and colleges. The Dual System provides 3 to 4 years of professional training, where the apprentice is trained in an enterprise and in a part-time vocational school. Entrepreneurship education is part of the curricula of middle and higher vocational training schools<sup>25</sup>, for example in the form of students running a training (fictitious) firm. Those who have successfully completed studies in vocational schools are not required to take the entrepreneur examination, which is a legal requirement in order to exercise a regulated profession on a self-employed basis, since the relevant knowledge is proven by school education.

The types of school that in Austria offer the greatest share of entrepreneurship education are Schools and Colleges of Business Administration, where this subject is part of the curriculum. In these establishments, entrepreneurship is both a didactic principle and a subject in its own right. Related activities are offered such as training firms and work on projects. Special modules have been tested in courses of “Business Start-up and Management” and “Entrepreneurship and Management”. From 2004/2005 the government will introduce these modules into the curricula of all Colleges of Business Administration in Austria.

Activities based on students running a training firm are already part of the various curricula. The government sponsors the running of training firms several hours a week during one year for all pupils in schools and colleges for business administration (where this is a compulsory subject) and in other institutions of secondary level (on an optional basis). Approximately 10,000 students per year participate. The necessary training for teachers is fully financed by the State. In the schools special management centres are established, with offices similar to those of modern companies. The Austrian Centre of Training firms (ACT) regularly undertakes measures for improving the quality of these programmes, in co-operation with the Ministry for Education. The ACT is funded by the Ministry of Education and provides services to schools free of charge.

*A set of measures aimed at developing entrepreneurship teaching within vocational and commercial schools, by adapting the national curriculum and promoting the implementation of specific programmes.*

---

<sup>25</sup> i.e. technical/commercial secondary schools, higher secondary schools for commercial professions and for tourism, higher secondary schools for agriculture and forestry, higher and lower secondary colleges for business administration, higher secondary schools for fashion and clothing technology.

## **12. Issue:**

The public authorities, at national and at local level, can play an important role in promoting links and contacts between schools and businesses.

### **Example:**

#### ***- Education Business Links (UK )***

There is a national mechanism in England (which came into existence in April 2001) to promote education–business links. This responsibility is held by the Learning and Skills Council, the body which funds all post-compulsory education and training, and which includes a consortium of Education Business Link Organisations in each of its 47 local areas. Each consortium has to produce a development plan of its proposed activities linking schools and colleges to businesses. Many of the development plans contain ‘Promoting Enterprise’ within their proposed range of activities.

Consortia are expected to include a range of organisations engaged in enterprise education. This often refers to the local activities of Young Enterprise UK, which sponsors groups of school and college students (aged 15-19) to develop and run a company for a year, in or out of school time, as well as other programmes in both primary and secondary schools; but also encompasses other organisations such as Businessdynamics, Project Trident and the National Foundation for Teaching Entrepreneurship (NFTE).

Another organisation which features in most consortia is the Education Business Partnership. These are autonomous local organisations with different origins, which organise work experience, student placements and teacher placements in business, and promote individual links between local schools and businesses.

*This system provides a national framework for promoting partnerships and ensures that all areas (urban, rural, etc. ) are covered.*

## 5. Indicators and possible targets

The Open Method of Coordination, defined in the conclusions of the Lisbon European Council as a means of spreading best practice and achieving greater convergence towards the main EU goals, is implemented through the use of tools such as indicators and benchmarks, as well as the exchange of experiences, peer reviews and the dissemination of good practice

**Voluntary national targets** in enterprise policy can help Member States concentrate their attention on key issues and measure progress. In this context, the opportunity of using qualitative and quantitative national targets on a voluntary basis in a number of areas related to the European Charter for Small Enterprises (one of them being education and training for entrepreneurship), has been emphasised by the national Ministers at EU level on several occasions<sup>26</sup>.

Indicators developed in the previous phase of this project (*see the November 2002 Report*) could serve the purpose of measuring in a comprehensive manner existing entrepreneurship related activities. However, due to the scarce development of data collection at national level, indicators to be used as a basis for setting possible national targets will need to be less ambitious and more realistic. The current situation as regards the availability of data makes it possible to use **qualitative indicators**, as well as **partial quantitative indicators** that measure the application of **individual, well known programmes or methodologies** rather than all ongoing entrepreneurship activities.

All national experts agree that national targets to be established should be **different for each country**, as the education systems as well as national priorities are different. The proposed approach is therefore that each country should be free to shape its targets as most appropriate, the Commission just providing possible models on the basis of a limited number of common indicators.

The Expert Group has identified some realistic indicators that could be used immediately as a basis for setting national targets to be reached on a voluntary basis. The application of these indicators would not depend on a full development of data collection, which is not to be expected in the short term at least on a European scale.

A **short list** of indicators of a qualitative and quantitative nature is accordingly proposed in this document. Selected qualitative indicators monitor whether certain essential pre-requisites have been established or not. They are easy to assess, and do not need to be measured. Quantitative indicators are focused and realistic, based on well identified programmes or methodologies.

In general, it was argued that targets should be based on appropriate and realistic indicators, following three main criteria. They should be:

- 1) meaningful;
- 2) easy to measure, and
- 3) measured or assessed on a regular basis.

---

<sup>26</sup> Conclusions of the Council "Competitiveness" of 3 March and of the Spring European Council of 20-21 March.

The process will start by using data already available or that could easily become available. This approach would provide a good basis for the national authorities to take commitments. It is suggested that each country chooses a limited number of key areas (two or three, perhaps) based on the proposed indicators and fix targets related to them.

The following list of indicators is a proposal coming from a technical body – a group of national experts appointed by the governments and coordinated by the Commission – and is intended as a stimulus to establishing a methodology for monitoring progress achieved at a national level, in a European framework. It will be up to the national authorities to decide on getting involved in this process.

The European Commission would provide a framework for these activities to take place, for instance in the context of the annual Report on the Implementation of the **European Charter for Small Enterprises**, which involves country reports and bilateral meetings between representatives from the Commission and the national administrations, with the objective of monitoring how Member States, Accession/Candidate Countries and Norway are making progress in the different areas of the Charter (*see also Section 6*).

*- Some possible indicators:*

**A. “Qualitative” Indicators:**

- 1) By .... (*YEAR*) a high level coordination group for entrepreneurship education will be in place, including representatives from different Ministries (Economy or Industry, Education, etc.) and agencies;
- 2) By .... (*YEAR*) an agreed (i.e. by the relevant Ministry or authority) definition for entrepreneurship education will exist, for use at a national level;
- 3) By .... (*YEAR*) an Action Plan for promoting the teaching of entrepreneurship will be adopted by the government, or by the relevant Ministry(-ies);
- 4) By .... (*YEAR*) the national curriculum will make it possible for primary schools to offer entrepreneurship education - in its broad sense<sup>27</sup> (as part of the curriculum);
- 5) By .... (*YEAR*) the national curriculum will make it possible for comprehensive secondary schools to offer entrepreneurship education (as part of the curriculum);
- 6) By .... (*YEAR*) promoting the enterprise spirit or entrepreneurship will be explicitly recognised as an objective in the national curriculum for primary education<sup>28</sup> (either as an horizontal aspect, or as a specific subject);
- 7) By .... (*YEAR*) promoting the enterprise spirit or entrepreneurship will be explicitly recognised as an objective in the national curriculum for comprehensive secondary education (either as an horizontal aspect, or as a specific subject);

---

<sup>27</sup> See definition of entrepreneurship teaching – in particular for primary level education – provided in the November 2002 Report , and summarised in Section 1 of this document.

<sup>28</sup> See the above Note.

- 8) By .... (YEAR) entrepreneurship and/or self-employment will be explicitly recognised as objectives of the national curricula for vocational, technical and commercial schools of secondary level (initial vocational training);
- 9) By .... (YEAR) public support will be available for entrepreneurship programmes and activities promoted by well-known international networks and NGOs (for instance, based on mini-companies or practice firms), and/or an agreement will be in place between the national administration and these organisations in order to facilitate the application of programmes;
- 10) By .... (YEAR) a global action plan or programme will be in place for making in-service training on entrepreneurship widely available to teachers;
- 11) By .... (YEAR) a permanent function or structure (at the national level) will be created for monitoring existing initiatives and gathering information and data on entrepreneurship education.

#### **B. “Quantitative” Indicators:**

- 1) By .... (YEAR) X% of all primary schools will offer at least one programme combining creativity, innovation and a simple concept of business (*e.g. by means of working on projects and case studies, pupils selling products at school markets, mini-companies, business games, etc.*);
- 2) By .... (YEAR) X % of all primary schools will offer a *Junior Achievement - Young Enterprise* programme (*or other programme based on a similar methodology*);
- 3) By .... (YEAR) X % of all comprehensive secondary schools will offer programmes based on mini-companies and virtual or practice firms;
- 4) By .... (YEAR) X% of all secondary level students will have at least one experience during their studies in a mini-company, a practice firm, a virtual firm or a business game;
- 5) By .... (YEAR) X % of all vocational/technical/commercial schools of secondary level (initial vocational training) will offer courses teaching the students how to become self-employed or how to start their own company;
- 6) By .... (YEAR) X (number) teachers will participate every year in entrepreneurship modules offered by higher education establishments for teacher training (initial training);
- 7) By .... (YEAR) X (number) teachers will participate every year in further vocational training on entrepreneurship (in-service training).

## **6. Building a policy for entrepreneurship education: a methodology for the future**

The overall objective of projects under the “Best Procedure” is that they aim at encouraging policy change in the EU Member States and in the other participating countries, one of the essential features of this methodology being that the activity is carried out jointly by the Commission and by the national administrations concerned.

There is some evidence that the “Best Procedure” project on education and training for entrepreneurship concluded in November 2002 and this follow-up initiative are already having an influence on developments taking place at a national level.

In **Austria**, a team of experts from two Ministries (Economy and Education) is following this work, and it is expected that new measures will be taken on the basis of this project's final report. In **Estonia**, it is reported that this European initiative has already achieved important results in raising the attention and the level of commitment to entrepreneurship education within the national administration. In **Finland**, the November 2002 Report is being used as a framework for the steering group set up by the Ministry of Education. The relevance of work undertaken at European level in the context of the Government's Entrepreneurship Programme has been emphasised. In **Germany**, there is a plan to address the Conference of the Ministers of Education of the 16 Bundesländer, in order to suggest further action. In the **Netherlands**, the aim is to promote the definition of entrepreneurship education agreed by the European expert group within national discussions and fora on this subject. In **Norway**, the November 2002 Report is considered as a reference document by the national working group on entrepreneurship education, established as a part of the Action plan for innovation. In **Sweden**, in the context of this European project an informal working group has been created at national level to discuss entrepreneurship education, with representatives from different Ministries and agencies.

It is reported in many cases that the definition for "entrepreneurship teaching" provided by the November 2002 Report is being or could be used as a reference at a national level, and that proposed indicators are considered as well.

In general, a number of regular links have been initiated or further developed between different services in the national administrations (and in particular between the Ministries of Economy or Industry, and Education) also as a consequence of activities carried out under this project.

More important effects on policy development at a national - but also regional - level should be expected in the longer term, and following the conclusions of this work.

## ***6.1. Establishing a self-sustained process: some instruments at European level***

### *- The concrete objectives for education and training systems in Europe*

One of the specific goals of the Lisbon European Council was to determine the future objectives of education systems for the next ten years. The Lisbon European Council also identified five areas of '**new basic skills**' for the knowledge-based economy, one of which was entrepreneurship.

In March 2001, the Stockholm European Council approved 3 strategic objectives divided into **13 concrete future objectives of education and training systems**<sup>29</sup>. In this context, the strategic objective "Opening up education and training systems to the wider world" includes an objective for "Developing the spirit of enterprise".

In this framework, the Commission's Directorate-General for Education and Culture has established ten working groups, composed of representatives of Member States, Candidate and Accession countries, EFTA/EEA countries and stakeholders' groups.

The working group on Basic skills, foreign language teaching and entrepreneurship addresses, among two other objectives, the one of entrepreneurship. The group has identified 8 domains of key competences<sup>30</sup> needed in the knowledge-based society and defined the knowledge, skills and attitudes for each of these domains<sup>31</sup>.

As regards **entrepreneurship**, the working group has based its work on the November 2002 Report on education and training for entrepreneurship<sup>32</sup>. At compulsory education level entrepreneurship is usually taught as a cross-curricular theme and the group, as well as for the other important cross-curricular themes, has agreed on recommendations to the Ministers of Education<sup>33</sup>. These recommendations will form part of the Commission's interim report<sup>34</sup> to the Spring Council 2004 on progress in the work towards the objectives of the education and training systems in Europe.

As entrepreneurship is one of the identified domains of key competences, the following stages of the work will be carried out by the Directorate-General for Education and Culture in co-operation with the Directorate-General Enterprise. For promoting entrepreneurship teaching at schools, it would be useful to learn more about successful implementation of cross-curricular themes, about co-operation

---

<sup>29</sup> Detailed work programme on the follow-up of the objectives of education and training systems in Europe. COM (2001)501 final, see: [http://www.europa.eu.int/comm/education/doc/official/keydoc/keydoc\\_en.html](http://www.europa.eu.int/comm/education/doc/official/keydoc/keydoc_en.html)

<sup>30</sup> The working group prefers the term "key competence" which refers to a combination of skills, knowledge, aptitudes and attitudes, whereas "basic skills" were considered narrower.

<sup>31</sup> The Key Competences in a knowledge-based economy: a first step towards selection, definition and description. The European Commission, 27 March 2002.

<sup>32</sup> "Best Procedure" Project on Education and Training for Entrepreneurship. November 2002.

<sup>33</sup> The report on the activities of the working group have been published in November 2003.

<sup>34</sup> Communication from the Commission "Education & Training 2010". COM(2003) 685 final, see: [http://europa.eu.int/comm/education/policies/2010/et\\_2010\\_en.html](http://europa.eu.int/comm/education/policies/2010/et_2010_en.html)

between ministries and about promoting the background skills of entrepreneurial spirit. For the measurement of progress, developing indicators would also be an area for close co-operation. At the moment, however, the concrete forms of co-operation between the two Directorates-General are to be defined in order to ensure convergence and the best use of expertise.

A permanent mechanism for **monitoring progress** at European level could be co-ordinated by Directorate-General Education and Culture in the context of the ongoing process on the Future Objectives of the Education Systems. Both DGs should be involved in the initial establishment of this mechanism. Results would be shared and used by all relevant participants. This should facilitate the easy transfer amongst participating countries of all relevant experiences and best practices.

Integration of entrepreneurship in this process, and coordination from the DG Education and Culture, will ensure that key messages reach the national Ministries and Departments of Education at the highest levels, and that the necessary commitment is taken by the Ministers of Education at EU level.

#### *- The European Charter for Small Enterprises*

The European Charter for Small Enterprises<sup>35</sup> was approved by EU leaders at the Feira European Council on 19-20 June 2000. The Charter calls upon Member States and the Commission to take action to support and encourage small enterprises in ten key areas. One of them is education and training for entrepreneurship. In fact, the first guideline in the Charter states that “*Europe will nurture entrepreneurial spirit and new skills from an earlier age. General knowledge about business and entrepreneurship needs to be taught at all school levels (...)*”.

On 23 April 2002, Ministers and Secretaries of State of the 13 Candidate Countries signed in Slovenia the “Maribor Declaration”, in which they support the Charter recommendations and at the Thessaloniki Summit in June 2003, the countries in the Western Balkans endorsed the Charter. 34 countries<sup>36</sup> now participate in the Charter process.

The Charter is a key instrument for promoting entrepreneurship and competitiveness in Europe, and has become a cornerstone of small business policy both at EU and at national level. Every year, an **implementation report**<sup>37</sup> is prepared by the Commission in view of the Spring European Council. In this context, bilateral meetings are organised between representatives of the European Commission and the national administrations, with the objective of monitoring how the participating countries are making progress in the different areas. In addition, written national reports are submitted to the Commission. Priority is given each year to a restricted number of Charter areas for deeper investigation, but all ten areas are still covered.

---

<sup>35</sup> [http://europa.eu.int/comm/enterprise/enterprise\\_policy/charter/index.htm](http://europa.eu.int/comm/enterprise/enterprise_policy/charter/index.htm)

<sup>36</sup> 15 current Member States, 10 accession countries, 3 candidate countries, 5 countries in the Western Balkans, Norway.

<sup>37</sup> For 2004, separate reports are being published on the Acceding and Candidate Countries and on the countries in the Western Balkans.

Results of the "Best Procedure" projects coordinated by the Commission, like "Education and training for entrepreneurship", will need in the future to be even further integrated into this process.

In order to ensure continuity to the current work on entrepreneurship education, and consistency with its conclusions, future bilateral meetings and reporting taking place in the context of the implementation of the Charter should be based on the results of this project, in particular on its conclusions and recommendations. Also, specific indicators proposed in this document could be used for setting national targets: the Charter process could be the right framework for monitoring progress in reaching those targets. Some of the basic qualitative targets proposed (e.g. on cooperation between different departments in the public administration) could be adopted as a meaningful indicator of progress made by all countries in this area, at least at the level of policy. In fact, such indicators aim to assess whether essential pre-requisites for the promotion of entrepreneurship education at national level have been established or not.

National members of the Expert Group on "Education for Entrepreneurship" should be aware of the next bilateral meetings when they take place and be actively involved in their preparation, although how this can happen will depend on the national authorities.

At European level it will be important to **record and evaluate developments** in this field once a year, and to undertake a more detailed assessment on a 2-3 years time frame (i.e. when the area of "education and training for entrepreneurship" is given priority within the Charter Implementation Report). This will encourage national administrations and other players to focus on selected key issues, and also to carry out the necessary research.

- *Green paper on Entrepreneurship and Action Plan*

The European Commission presented in January 2003 the Green Paper 'Entrepreneurship in Europe'<sup>38</sup> with a view to stimulating the debate on the future policy agenda for entrepreneurship amongst the widest possible audience of stakeholders.

Contributions were received from public authorities at national, regional and local level, business organisations, business support providers, individuals as well as universities and academia<sup>39</sup>. A summary report presents the main trends in responses, and has been a key input for the preparation of an Entrepreneurship Action Plan.

The **Entrepreneurship Action Plan**<sup>40</sup> was adopted by the Commission in February 2004, and will be discussed by the Council under the Irish Presidency<sup>41</sup>.

For the Commission, the Action Plan implies the continuation of a number of ongoing initiatives, in areas such as education. In fact, the document focuses on five strategic

---

<sup>38</sup> COM (2003) 27 final, European Commission, 21.01.2003.

<sup>39</sup> Responses are available on the Europa website:  
[http://europa.eu.int/comm/enterprise/entrepreneurship/green\\_paper/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/green_paper/index.htm)

<sup>40</sup> Action Plan: *The European agenda for Entrepreneurship*, European Commission, COM (2004) 70 final, 11.02.2004.

<sup>41</sup> Competitiveness Council on 11 March and European Council on 25/26 March 2004

policy areas, one of them being “Fuelling entrepreneurial mindsets among young people” The Action Plan relies on a reinforced application of the open method of co-ordination for entrepreneurship. The Commission should follow the Member States’ progress, notably by using existing instruments such as the Implementation Report of the **European Charter for Small Enterprises**, which could be adapted for this purpose and would provide a permanent monitoring mechanism.

To ensure real progress in becoming entrepreneurial societies, the Action Plan suggests horizontal measures for the Commission and the Member States to create a supportive framework for entrepreneurship policy. Such measures could include regular progress reports, mechanisms allowing a horizontal approach to entrepreneurship policy and methods to integrate results from European exchange projects. The follow-up of the Action Plan will be therefore integrated into the Charter reporting process as described above.

## ***6.2. Policy commitment, and future perspectives at national level***

In addition to policy initiatives already mentioned earlier in this document (*Section 3*), some of the most recent developments at national level are briefly presented below, as an indication of where national policies in this area are moving and of future perspectives.

In **Austria**, a well-established cooperation is in place between the Ministries of Economy and Education, as well as with social partners. Further developments may follow the conclusion of this work.

In the **Czech Republic**, the Ministry of Industry and Trade has taken the initiative in order to further involve the Ministry of Education, Youth and Sports in the process of promoting entrepreneurship education.

In **France**, in March 2003 the Secretary of State for SMEs and the Minister for National Education signed a protocol agreement, the aims being to improve the knowledge of teachers, pupils and students about enterprises and to develop the entrepreneurial spirit among young people, through a set of different measures.

In **Germany**, the Federal Ministers of Education meet regularly in the Conference of the Ministers of Education. There is a plan – also involving other Ministries - to address this Conference in order to suggest further action. Also, a commission with experts from the Ministries of Economy and the Ministries of Education from each federal state has been formed to find ways to connect an intensified economic education with the existing curricula. This commission has now formulated non-compulsory recommendations for the curriculum. Entrepreneurship is emphasised as an option for job orientation, and mini-companies are recommended as a suitable method to provide key competences and an economic understanding.

In **Estonia**, the Ministry of Economic Affairs is committed to raising the level of entrepreneurship education. For this purpose, it has initiated a working group from different ministries. The Foundation for the Reform of Vocational Education, an agency of the Ministry of Education, has started a project for bringing entrepreneurship into the vocational education and training (VET) system. Five pilot

schools were chosen for the programme and after the end of the pilot project it is planned to promote entrepreneurship education in the VET system as a whole.

In **Finland**, according to the programme of the new government, entrepreneurship will be promoted in different fields of education. In August 2002 the Ministry of Education set up an entrepreneurship steering group, which will develop and coordinate entrepreneurship at different levels of education. It has 17 members representing different ministries, organisations and educational administrations and will concentrate on three themes: strengthening regional networks, producing entrepreneurship materials and enhancing information about entrepreneurship, especially by means of continuing education and training and contacts with business and industry.

In **Iceland**, the new government has planned action in this field starting from 2004.

In **Ireland**, the Department of Enterprise, Trade and Employment has displayed a strong level of commitment. The next step will be to discuss together with the Department of Education & Science the requirements of developing the necessary framework.

In **Italy**, the link with the world of employment is the basis of the reform of the education and training system, although entrepreneurship and self-employment are not explicitly mentioned as objectives.

In **Latvia**, the Ministry of Economy has recently started to develop a Programme for Innovation, one of the areas included being entrepreneurship education.

In **Lithuania**, developments are expected within the long-term strategy on economic education of the Ministry of Education. This should also involve other Ministries. An action plan was adopted in autumn 2003.

In **Norway**, the ongoing action plan for innovation involving five governmental departments/ministries is a major commitment.

In **Poland**, entrepreneurship is currently one of the priority areas of the Ministry of Education.

In **Portugal**, the Ministries of Economy and Education are currently working on devising ways of promoting entrepreneurship education.

In **Slovenia**, there is a plan to introduce entrepreneurship education as a key competence in the vocational training system.

In **Spain**, the revised curriculum for primary and secondary level, including the teaching of entrepreneurship, will be implemented from the school year 2004/2005.

In **Sweden**, a strategy to strengthen the innovation climate will be presented in spring 2004. Co-operation between business, educational establishments and society must be further developed, and the promotion of entrepreneurship will be one of the central issues in this work.

In the **UK**, the development and publication of *Enterprising Education* demonstrates that there is already a commitment in Northern Ireland to promoting greater integration of entrepreneurship and education. In England, the recommendations of the Davies Review have been accepted by the Government, and a plan is in place to implement five days of enterprise education for all pupils aged 15 in secondary schools by 2006. In Scotland, the authorities are committed to a change in the delivery

of enterprise education through their response (March 2003) to the Report *Determined to Succeed*, published in 2002.

#### *Conclusions:*

Most recent developments at a national level have often taken the form of **creating regular links within the administration**, notably between the Ministry of Economy or Industry, the Ministry of Education and other departments or agencies.

In a number of cases, this has led to creating inter-service working groups dedicated to the promotion of entrepreneurship education.

This should be seen as a pre-condition in view of adopting a global strategy, as entrepreneurship education is a horizontal aspect touching the competences of at least two different departments of the national (or regional) administration.

In some instances - often as a follow-up of that first step - an **action plan** on entrepreneurship education (sometimes as a part of a broader strategy on entrepreneurship or innovation) has been launched by central governments. Adopting a coordinated strategy is crucial in this area, as entrepreneurship education needs to involve not only different sectors of the public administration, but also a number of other actors: schools, teachers, private partners and businesses, etc. Mobilising all the relevant actors will be possible only by means of a global plan. There are some promising examples of this approach (for instance in **Finland, Norway** and the **UK**), that could be disseminated to other countries where this process has not started yet, or is only at the very beginning.

The following step will be of course taking **concrete measures**, from changing the national curriculum to providing incentives and facilitating the adoption of programmes. In general, measures of support to schools and teachers are still insufficient, and at the national level this is in most cases recognised.

Existing **international networks and programmes**, especially well-established programmes such as Junior Achievement, Young Enterprise, Practice Firms and others represent a big potential, which should be further exploited by the educational authorities. In some countries (especially Acceding/Candidate Countries of central and eastern Europe), these programmes represent the most important, or even the only existing initiative on a wide scale. In a number of cases, the educational authorities are helping the development of such programmes by providing support. The importance of these programmes should be further acknowledged. Some figures may explain how these activities can contribute to bringing entrepreneurship education into the schools. In the **UK**, students run each year 3 500 mini-companies within Young Enterprise. In **Estonia**, about one half of all primary schools have a Junior Achievement programme.

### **6.3. A possible methodology for the future**

National authorities should set up a well structured **cooperation between different Ministries** and departments (in particular Economy/Industry and Education), where this is not yet in place.

Although the initiative may be taken by the Ministry of Economy/Industry, it is essential that the Ministry of Education is fully involved - since the matter is primarily

concerned with the national education systems - in order to successfully launch any strategy or activity.

All relevant Departments may need to organise a preliminary meeting between themselves to discuss how best to proceed and discuss the requirements of developing the necessary framework/infrastructure. This would lead to establishing permanent inter-service groups that would review existing measures and programmes, identify needs and avenues for possible development, set objectives and targets, contribute to creating a policy framework, launch specific measures and actions.

These activities should take advantage of the European framework provided by the “Best Procedure” project coordinated by the Commission and by its follow-up. This will make it possible to draw inspiration from strategies and measures adopted by other countries, and using some unified criteria, for example as regards the definition of entrepreneurship teaching and framework indicators for the collection of data.

Revising the curriculum will be necessary in some cases, but not sufficient. **Incentives** to introducing the concept of entrepreneurship into the educational offer will be needed. These will take the form of financing pilot projects in the schools, promoting links between schools and enterprises, providing teaching material, supporting dedicated organisations and programmes, raising awareness and disseminating good practice. Particular attention will be given to motivating the teachers, and to make specific training for them available. It is important that the school as a whole is committed to entrepreneurship education.

**Awareness raising** activities and dissemination of examples and good practice will be especially needed in primary level education, as the meaning and importance of developing entrepreneurial qualities in the broader sense, starting from an early age, are not yet perceived in most cases in either the public administration or the schools. Dissemination of existing examples of good practice in Europe – combining, for instance, creativity, innovation and a simple concept of business - will show what can be accomplished at this level of education, and will contribute to motivate public authorities, schools, teachers and parents.

Existing **NGOs** already promoting entrepreneurship programmes in schools all over Europe will be involved by the educational authorities, and their potential will be fully exploited. Their contribution to promoting the spirit of enterprise among young people will be recognised. Support measures could be envisaged in order to facilitate the application of these programmes, which will be better embedded in the curricula.

In particular, the application of programmes based on students running **mini-companies** and **practice** or **virtual firms** will be further promoted, also by means of increased support and recognition from the public sector.

The Commission will provide a **European reference** for all these initiatives, coordinate the efforts, suggest possible strategies and common goals to be achieved, facilitate the exchange of experience and good practice. It will offer an institutional mechanism for monitoring progress at national and at European level, by using and further developing existing instruments.

For instance, a yearly review of measures will take place in the context of the Report on the implementation of the **European Charter for Small Enterprises**. Bilateral meetings are organised every year between representatives of the European Commission and the national administrations, with the objective of monitoring how

the participating countries are making progress in the various areas of the Charter. In addition, written national reports are submitted to the Commission. This permanent monitoring exercise should make use of the outcome of this work. Bilateral meetings and reporting will take advantage of the analysis and conclusions presented in this document.

Although the Commission can identify and propose common objectives, specific goals and **targets** in this area should be set at national level, as the education systems are different and there are different needs and priorities in each country.

In this perspective, national administrations are encouraged to select some of the indicators proposed in this document for measuring progress, and to set up a limited number of targets related to them, to be reached on a voluntary basis. These targets would be a useful reference for the evaluation of progress. Although proposed indicators may not be completely satisfactory, as they have been defined taking into account the limited amount of quantitative data available, these can be revised at a later stage when the situation evolves. Progress in achieving targets could be monitored for instance within the reporting for the European Charter for Small Enterprises. In this sense, some of the **qualitative indicators** and/or **specific recommendations** proposed by this Report could be generally applied for monitoring progress in all countries, as they simply check whether certain pre-requisites have been created or not.

As part of a parallel process taking place at a European level, the main conclusions of this document will be taken into account within ongoing activities coordinated by the Directorate-General for Education and Culture in the context of the **Future Objectives of the Education Systems** ("Education & Training 2010"), and will therefore reach the national Ministries of Education. Closer links and well structured cooperation on this theme between the different departments and Ministries (e.g. Economy/Industry and Education) will ensure that the two European initiatives converge at a national level, and that reactions are coherent.

At European level, this process should be also linked to the existing evaluation of the National Action Plans for Employment (Employment Strategy). It will be up to the Commission to explore possible synergies and to coordinate the activity of its different services.

In the meantime, **collection of data** in this field should be further developed (*see subsection below*).

If the overall process and specific initiatives outlined above are in place, the advantages in the medium and long term could be significant.

The **Entrepreneurship Action Plan** (following the Green Paper) re-affirms the importance of promoting the teaching of entrepreneurship at all levels, and continues setting this issue in a European context. The Action Plan asks for further commitment on the promotion of entrepreneurship, and proposes a set of measures focusing particularly in five strategic key areas, one of them being "Fostering entrepreneurial mindsets among young people".

If necessary, **a new specific initiative** on education for entrepreneurship could be launched by the Commission in **three years** from now, in order to assess progress made at a national and European level following the conclusion of this work.

More specific **recommendations** on action to be taken at all levels are included under *Section 7*.

- *Collection of data*

Participating countries should increase their effort in gathering **qualitative** information on existing activities and programmes, and in disseminating experience and good practice. Collection of **quantitative** data also needs to be gradually developed. This should be done following the methodology that is most appropriate to each national education system, and without placing too much burden upon schools.

In order to start this process, a number of steps should be followed:

- Meeting of all interested parties - including representatives from the Departments of Economy/Industry, Education and other relevant bodies.
- Determine a framework for the collection of quantitative data. This would include the following:
  - Which data are to be collected;
  - How frequently they will be collected;
  - Develop the necessary infrastructure for the collection of data;
  - Determine and provide the required level of funding/resources to collect data;
  - Designate responsibility for the collection and analysis of such data.

At the end of this process, a permanent function or structure (observatory, commission, etc.) should be created at national level that will be responsible for coordinating the gathering of data (qualitative and quantitative) on entrepreneurship activities in schools. In the longer term, these national bodies or offices could be linked and be part of a **European Observatory** whose role would be that of ensuring coherence in the collection and interpretation of data, and of integrating all the available information into a European framework.

In the short term, before more comprehensive data collection is developed, monitoring of progress should be based on using essential qualitative indicators, and partial quantitative indicators measuring the application of some well identified or identifiable programmes (*see Section 5*).

## 7. Final conclusions and recommendations for future action in this area

### *Some key conclusions:*

- Translation of policy commitment into concrete action starts from a well structured **cooperation between different departments** of the national administration (notably, Ministries of Economy or Industry, and Education), which seems to be either still **lacking** or **not yet thoroughly developed** in most countries.
- The first step of a global and coherent policy is usually the creation of a high level inter-ministerial committee or working group on entrepreneurship education. The second step will be launching a specific **strategy** or **action plan**.
- While the concept of entrepreneurship education is to a certain extent generally accepted (at least in theory) when applied to secondary school, this is not yet the case for **primary school**<sup>42</sup>. **Awareness-raising** campaigns and activities are needed: it is necessary to explain what entrepreneurship teaching means at that level of education, and to offer **concrete examples**.
- In a number of countries (especially in Acceding and Candidate Countries of central and eastern Europe), **external organisations**, sponsored by private partners and in some cases supported by public authorities, **have taken the lead** in promoting the teaching of entrepreneurship within the education systems.
- In most countries the **national curriculum** has broad objectives and **allows** - at least theoretically - the development of entrepreneurship activities. However, these are normally **neither required nor promoted**.
- Therefore **revising the national curriculum**, although it can be a necessary measure, will not be sufficient in itself, if this is not accompanied by **measures of support** and by an **active promotion** of entrepreneurship, on the initiative of national and regional authorities or with their participation, so that schools and teachers are concretely motivated and convinced about embarking in these activities.
- On a European scale, the application of concrete **measures of support** and **promotion** of entrepreneurship targeting the education systems (as well as other relevant actors) appears to be still rather **limited**, although various initiatives are in place in a number of countries.
- The enquiry shows that there may be **different ways of moving forward** in this area. One common initiative has been to **revise the curriculum** (but only in few

---

<sup>42</sup> It should be mentioned again, as regards primary level education, that the definition of entrepreneurship agreed by the expert group and used in this Report is broad, and includes for instance the development of personal qualities like creativity, initiative, etc. See the definition of entrepreneurship teaching – in particular for primary level education – provided in the November 2002 Report, and summarised in Section 1 of this document.

cases addressing all levels of education). **Disseminating good practice** is a preferred strategy, but has not been applied extensively so far. Measures of **incentive** have been developed in some countries. Development of **teaching material** and **training for the teachers** are insufficient.

- Existing **international and European networks and programmes** whose mission is to promote entrepreneurship education - normally by means of partnerships with the business world - represent a potential that is **not fully exploited** by the education systems. These programmes offer well experimented models that can be easily adapted to the local environment.
- With some exceptions, **no major developments** are to be expected in the short term – at least on the initiative of national policies – as regards the following key aspects: entrepreneurship activities in **primary education**; provision of specific **training for teachers**; collection of **quantitative data**.
- The **insufficient provision of specific training to teachers** on how to bring the concept of entrepreneurship into the classroom - and the current **lack of systematic plans** to address this gap - risk being a major obstacle to greater application of these programmes and activities.
- Comprehensive quantitative data on entrepreneurship education will not be available in the short term. Therefore, for the purpose of monitoring progress, it will be necessary to use **qualitative indicators**, as well as **quantitative indicators** that are related to a limited number of **specific** and **well-known programmes or methodologies**.
- Setting **concrete targets** - to be reached on a voluntary basis and in a European context - will be helpful in order to **achieve progress**. However, the same quantitative targets should not be applied to all countries, given that the structure of their education systems is different, as well as their current situation and priorities. Each country should set its own, **individual** targets on entrepreneurship education, and monitor achievements as a part of a European process.
- Finally, many **good examples** of policy action aiming to promote entrepreneurship education, or promising initiatives going in that direction, **can be found across Europe**, in all areas and in different countries, and are presented throughout this report. The greatest challenge lies in spreading these positive examples. National and local authorities, educational establishments and all other organisations and actors concerned may **learn from each other's best practice**, or draw some inspiration from it.

***Recommendations for further action:***

***The national authorities (or regional authorities, where relevant):***

- 1) Enhance **cooperation** between different departments in the public administration that need to be involved in promoting entrepreneurship education, for example between the Ministry of Economy or Industry and the Ministry of Education. This cooperation should lead to creating dedicated inter-service working groups.

- 2) Adopt a **definition for entrepreneurship** education, to be used as a reference for activities to be developed at a national level and for data collection. This definition should be compatible with the one adopted by experts at European level<sup>43</sup>.
- 3) On the basis of established inter-department cooperation, launch a **national strategy** or **action plan** on entrepreneurship education, thus ensuring not only the necessary thrust but also a coherent and global approach to an issue which is horizontal.
- 4) Create an inter-department function or structure (observatory, committee, etc.) that will be responsible to give impulse to - and coordinate - the **gathering of information** at national level. The aim should be to gradually develop the collection of quantitative data on entrepreneurship programmes and activities, to step up the gathering of information on pedagogical tools and methodologies, to disseminate good practice.
- 5) Accompany the inclusion of entrepreneurship in the national curriculum with **support measures** targeting the schools and the teachers, thus promoting concretely the application of programmes. These will include, among others, funding pilot projects in the schools, training and motivating the teachers, making teaching material available, encouraging links between schools and enterprises, supporting organisations that promote entrepreneurship programmes, raising awareness, disseminating good practice.
- 6) Particular attention will be dedicated to set up concrete schemes and initiatives that will allow increasing the provision of specific **training to the teachers** on entrepreneurship, including opportunities to gain practical experience through direct relations with businesses.
- 7) Devise new and innovative ways of promoting **public/private partnerships**, and disseminate successful experiences; identify resources that could be matched by private funds, so that public initiative can act as a catalyst of private participation in education.
- 8) Increase the application of programmes based on practical experience, e.g. by means of students running mini-companies or virtual firms. One way of achieving this objective will be to support - through funding or with other means - the activity of **European/international networks** and **NGOs** already promoting these programmes across Europe.
- 9) Implement some of the proposed indicators (*Section 5*) and define a limited number of qualitative and quantitative **targets** - to be reached on a voluntary basis - in order to facilitate the achievement of concrete and measurable goals.
- 10) **Regional and local authorities** are called to play an essential role in promoting entrepreneurship education in the local community, by developing a coherent

---

<sup>43</sup> Section 1 of this document. The full definition agreed by the experts can be found in the Expert Group Report of November 2002:  
[http://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/training\\_education/index.htm](http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/training_education/index.htm)

strategy that will target schools, local businesses and all relevant organisations, including adapting the curriculum (where this is a viable option for regional/local authorities) and supporting the development of programmes.

***The national (or regional) authorities and the European Commission:***

- 11) **Raise the awareness** of public administrations and schools of the importance of nurturing entrepreneurial qualities already from **primary education**. Dissemination of examples of good practice will show what can be accomplished at this level of education, and will contribute to motivate public authorities, schools, teachers and also parents.
- 12) **Raise the awareness within the education departments** in the administrations at all levels of the importance of entrepreneurship as a new basic competence, not just as a means to create more businesses - thus contributing to economic growth and to job creation - but also as a way to stimulate the development of personal qualities that will help fulfil the potential of the individual. Particular attention should be dedicated to the need to train teachers; knowledge of teaching methodologies using student companies or virtual firms should be also spread.
- 13) Step up activities of **dissemination of good practice**, both at a national and at a European level, and the **exchange of information** between public administrations of Member States, EFTA/EEA Countries, Accession and Candidate Countries.

***The educational institutions / schools***

- 14) **Schools at all levels**, starting from their headmasters and directors, are encouraged to recognise the importance of spreading the enterprise spirit among young people, including nurturing personal qualities such as creativity and spirit of initiative; to become committed to this new approach in teaching; to support the teachers in implementing it; and to create a focal point to coordinate these activities. By doing this, schools will raise the profile of their educational offer, providing new basic competences that are most needed in our society, and will offer a better and more complete career orientation to young people.
- 15) **Higher education establishments** providing teacher training are called to increase the offer of optional modules on entrepreneurship for future teachers.

***The business world, and NGOs:***

- 16) **Private parties** (business associations, companies, entrepreneurs, business consultants, etc.) are encouraged to become more involved in education programmes, both by sponsoring and funding specific initiatives, and by participating directly in the teaching (e.g. as tutors or mentors). This involvement should be seen by firms as a long-term investment, and as an aspect of corporate social responsibility.
- 17) International and national **networks** and **NGOs** should continue their efforts to promote the teaching of entrepreneurship in the education systems. In particular, they are called to: increase the number of schools and students participating in

their programmes; mobilise private partners and sponsors; look for recognition and support from educational authorities; disseminate information on their activities and good practice; invest more in the evaluation of programmes.

- 18) Business associations and Chambers of Commerce are encouraged to take the initiative and act as **policy makers** in entrepreneurship and business education, being partners of governments in developing policy at national and local levels.

*The European Commission:*

- 19) Provide a **European framework** for initiatives to be taken in this area; coordinate the efforts and suggest possible strategies and goals to be achieved; facilitate the exchange of experience and good practice.
- 20) Offer a self-sustained and permanent **mechanism for monitoring progress** at national and at European level, by means of using and further developing existing instruments and based on national input and data.
- 21) Intensify the efforts in order to **improve synergies** between different European instruments and programmes (including the use of EU funds and grants), and also between different services as regards the promotion of an entrepreneurial culture (notably, Directorates-General “Enterprise”, “Education and Culture”, “Employment and Social Affairs”, “Regional Policy”, and “Research”).