



MINI-COMPANIES IN SECONDARY EDUCATION

BEST PROCEDURE PROJECT: FINAL REPORT OF THE EXPERT GROUP





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BEST PROCEDURE PROJECT:
“MINI-COMPANIES IN SECONDARY EDUCATION”
FINAL REPORT OF THE EXPERT GROUP

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Further information:

European Commission

Directorate-General for Enterprise and Industry

Unit E.1: Entrepreneurship

Fax: +32-2-29.66 27 8

E-mail: Entr-entrepreneurship@cec.eu.int

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

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MEMBERS OF THE EXPERT GROUP

Country	Name	Organisation	Contact
Belgium	Ms. Sandrine De Crom	Administratie Economie (directoraat-general)	sandrine.decrom@ewbl.vlaanderen.be
	Prof. Bernard Surlemont	Fondation pour la Recherche et l'Enseignement de l'Esprit d'entreprendre	b.surlemont@freefondation.be
Czech Rep.	Mr. Miroslav Kadlec	National Institute of Technical and Vocational Education	kadlec@nuov.cz
	Mr. Lukas Hula	National Institute of Technical and Vocational Education	hula@nuov.cz
Denmark	Ms. Mette Lise Rogne	Ministry of Education	mette.lise.rogne@uvm.dk
Germany	Ms. Marion Hühtermann M.A.	Projekt Junior / Institut der Deutschen Wirtschaft Köln	huechtermann@iwkoeln.de
Estonia	Ms. Epp Vodja	Junior Achievement Fund	epp@ja.ee
Greece	Mr. Kostas Katsogiannos	Special Authority Unit for the Operational Programme in Education	katsogi@epeaek.gr
Spain	Ms. Rosario Sánchez Núñez-Arenas	Ministerio de Educación y Ciencia	rosario.sanchezn@educ.mec.es
France	Ms. Christiane Moravie	Ministère de la Jeunesse, de l'Education Nationale et de la Recherche	christiane.moravie@education.gouv.fr
	Mr. Jacques Mary	Ministère de l'économie, des finances et de l'industrie	jacques.mary@decas.finances.gouv.fr
Ireland	Ms. Fiona Kindlon	Second Level Support Service	fionakindlon@slss.ie
Italy	Ms. Miriam Cresta	Junior Achievement Italia	miriam.cresta@junioritalia.org
Latvia	Mrs. Antra Slava	Central Bank of Latvia (Latvijas Banka)	antra.slava@bank.lv
Lithuania	Mr. Eugenijus Savicius	Junior Achievement Lithuania	jalith@lja.lt
Luxembourg	Mr. Gilbert Engel	Ministère de l'Education Nationale, de la Formation Professionnelle et du Sport	engel@men.lu
Hungary	Ms. Dora Darazs	Hungarian Young Enterprise Foundation	darazsdora@eletpalya.hu

Netherlands	Mr. Henk Vink	Mini-Ondernemingen Nederland	vink@vno-ncw.nl
Austria	Ms. Andrea Gintenstorfer	Bundesministerium für Bildung, Wissenschaft und Kultur	andrea.gintenstorfer@bmbwk.gv.at
Poland	Mr. Marcin Kulikowski	Warsaw School of Economics	mkulik@sgh.waw.pl
Romania	Mr. Gabriel Toader	National Agency for SMEs and Co-operatives (NASMEC)	gabrieltoader@mimmc.ro
Slovakia	Ms. Nadežda Redlich – Michalská	Ministry of Education	nadja@education.gov.sk
Finland	Mr. Antti Markkanen	Ministry of Education	Antti.Markkanen@minedu.fi
Sweden	Ms Annika Järemo	NUTEK, Swedish Agency for Economic and Regional Growth	annika.jaremo@nutek.se
United Kingdom	Mr. Patrick Shipp	Enterprise and School-Business Links	patrick.shipp@dfes.gsi.gov.uk
Norway	Mr John Christian Christiansen	Norwegian Board of Education	jcc@ls.no

Other Members of the Expert Group:

EUROPEN	Ms. Suzana Temkov	EUROPEN e.V.	Temkov@europen.info
JA-YE Europe	Ms. Caroline Jenner	Junior Achievement-Young Enterprise Europe <i>asbl</i>	Caroline@ja-ye.org
JADE	Ms. Monika Oswald	JADE European Confederation of Junior Enterprises	monika.oswald@jadenet.org
	Ms. Dilek Ayhan	JADE European Confederation of Junior Enterprises	dilek.ayhan@gmail.com
European Commission	Mr. Simone Baldassarri	Directorate-General for Enterprise and Industry	simone.baldassarri@cec.eu.int

EXECUTIVE SUMMARY

In order to achieve the goals of the re-launched **Lisbon Strategy**, Europe must place the main emphasis on knowledge and innovation. Promoting a more **entrepreneurial culture** is an important part of this effort, starting with young people and from school education.

Entrepreneurship is a major driver of **innovation, competitiveness and growth**. The entrepreneurship competence is indispensable for the self-employed, but also relevant for employees within firms of any size. The **Lisbon** Council in 2000 already included entrepreneurship into the “new basic” skills, considered necessary for all in order to live and work in a knowledge-based society.

Previous joint projects between the Commission and experts appointed by national governments highlighted activities where **students run a mini-company** at school as an effective methodology for spreading entrepreneurial mindsets, as it is based on learning through direct experience of entrepreneurship.

The objective of **mini-companies run by students** is that of developing on a small scale a **real economic activity**, or of **simulating** in a realistic way the operations of real firms. Though operating in a protected environment and for a pedagogical purpose, frequently student companies produce and sell **real products or services**. Therefore, this study included both student companies selling their products for money and virtual, fictitious or practice firms, provided that the simulation is sufficiently realistic and that certain criteria are met.

A student company is defined as a pedagogical tool based on **practical experience** by means of running a complete enterprise project, and on **interaction** with the external environment

These activities allow students to acquire **basic business skills**, but also to develop **personal qualities** and **transversal skills** that have become increasingly important for all in order to live and work in the knowledge society. In fact, through participation in mini-companies students display their **creativity**, develop enthusiasm and **self-confidence**, learn how to **work in a team**, become more willing to take **responsibility** and to use their **initiative**.

Some main factors of effectiveness and success in implementing student company programmes were identified by the Expert Group. **Best practice** emphasises aspects such as team working and the freedom of students to develop their own ideas. Also, the development of links with the business world and the local community, and the availability of **mentors and advisers from businesses** are key elements of successful mini-company programmes.

Students participating in mini-company programmes are still a minority. During the 2003/04 school year, in most countries the rate of secondary school students involved was estimated to be below 1% of the total, and only in 5 countries above 2%. However, **at least 200 000 secondary school students every year take part in these programmes in EU 25 and Norway**. Information available on participation by **gender** shows a good balance between males and females. As regards the number of schools offering these programmes, in most countries **secondary schools involved** are **less than 15 %** of the total: this percentage should be increased.

The growing success of the student company methodology is due to:

- The strong **connection with businesses** and with the local community, and the involvement of the private sector;
- **Flexibility** and **adaptability** of these programmes to different types of education, and locally to different situations;
- **Enthusiasm** and **motivation** generated in students (even those who lack motivation in more traditional subjects);
- The potential, in terms of **creativity, initiative and innovation** that these activities are able to unlock in young people.

These programmes can be applied at **all levels of education** and in **every type of school**: in general secondary education as well as in vocational education. However, in almost all countries the large majority of students participate in these activities during their **upper secondary** education. Student company programmes are implemented both as part of the curriculum and during **normal school hours**, and as **after-school** and **out-of school** activities.

Frequently, activities in school are complemented with **extra-time** work and students devote some of their free time to organising their business operations (development of the product, contacts with providers and customers, sales, etc.). Actually, this methodology is very much based on the enthusiasm and good will of students and teachers.

Although basic **evaluation tools** such as gathering feedback from students and teachers are generally used, there is a need to further develop the capacity of schools and mini-company providers to review and **evaluate** programmes they engage in.

Not enough research has been developed so far in Europe on the impact that participation in mini-company programmes has had on the future career of students. However, the limited evidence available **supports the effectiveness** of these programmes in tangibly promoting the entrepreneurial spirit of young people. For instance, a survey made in Norway shows that around 20% of respondents between the age of 25 and 34 that took part in one of these programmes have established their own company. Also, these programmes seem to have a positive influence on **equal opportunities** between sexes.

There are only a few countries where student company programmes are officially recognised or recommended as an option within the **national curriculum**, and this tends to be the case more frequently in vocational education than in comprehensive secondary education.

It is generally felt that, in all countries, **schools enjoy a sufficient degree of autonomy and freedom** allowing them to implement mini-company programmes, either as a curricular or as an extra-curricular activity. Obstacles lie with the **reluctance of schools and teachers** to become involved when programmes are not backed up, recognized or recommended by the educational authorities. The inclusion of student company programmes as an **option in framework curricula** established at national or regional level has a positive effect on their dissemination and their success, for instance by raising the motivation of teachers.

These activities require from teachers not only special knowledge, but also a change in teaching methodologies. This requires specialised training. A certain amount of **extra time** and out-of-school **work** is often needed, in particular for mini-companies dealing with real products or services. Additional work of teachers beyond normal school hours is in many cases neither recognised nor rewarded, thus discouraging teachers from getting involved in these activities.

In most cases student company programmes are **driven and organised by external actors** (e.g. NGOs) rather than by the education system itself, although they may receive significant support from the public sector. For the above reason, and because sometimes they take place outside the school curriculum, these programmes generally suffer from **insufficient financial resources**.

Activities are based on **strong involvement of the private sector**, taking the form of funding or contributions in kind.

In most countries student company programmes receive a degree of **support from public authorities** (financial or other). Actually, in some countries **financial resources** for the organisation of these programmes come mainly from the public sector. However, the level of public support is often perceived as not sufficient for ensuring a continued and strong presence of student company methodologies in the education systems. Also, support is in many cases not systematic, but rather project-based, thus not encouraging long-term planning.

Other forms of support are: an official **recognition** or **endorsement** from the educational authorities; the inclusion as a recommended option in framework **curricula established** at national (or regional) level; regular **cooperation** with promoters (such as NGOs); active **promotion** to teachers and schools.

In a few countries, public authorities have established a structured **cooperation with NGOs** responsible for the organisation of student company programmes. Also, active **promotion** by public authorities to teachers and schools can play a very important role in the dissemination of these programmes. In some cases, the Department of Education sends invitation letters and information material to the heads of schools aiming to encourage their participation. However, activities of promotion are in most countries only occasional, or not enough intensive and systematic.

In some countries, the organisation of student company programmes faces major practical difficulties because of an unclear **legal and administrative framework** (for instance, as regards aspects such as the taxation of mini-companies or the possibility for students of dealing with real companies). In other cases, a specific **regulatory framework** for student companies has been established, or **agreements** between promoting organisations and financial authorities are in place.

While not disregarding the effectiveness of other pedagogical tools, it can be affirmed that **these programmes are an important option within any strategy for stimulating entrepreneurial attitudes and skills**, as they are based on learning through practice.

Also, these programmes can represent an important instrument within **regional development policies**. In fact, especially in less developed or more isolated regions, activities may have positive effects in increasing the number of school leavers to remain in the area by building direct links with the local community.

At the moment, the **main obstacles** to an increased application are: insufficient recognition, absence of a visible role within curricula, lack of motivation of teachers and of specific training for them, not enough promotion from the public authorities to schools, not enough financial resources to ensure long-term planning and sustainability.

The dissemination and take-up of student company activities should be increased, so as to **allow all potentially interested students to have access** to these programmes.

A set of **recommendations** is proposed - addressing all the actors concerned - on how to implement these methodologies most effectively, increase their presence in the education systems and their take-up by schools and students.

As concerns **public authorities**, these recommendations include:

- Developing an **overall strategy** for entrepreneurship education in schools. In this strategy, student company programmes should be highlighted as one important option within the established curricula.
- Setting up regular **cooperation** between different ministries, business associations, non-governmental organisations, educational institutions, municipalities, with the objective of further promoting activities based on the student company methodology.
- Cooperating in particular with those **organisations** (such as NGOs) that are widely disseminating these programmes, and involve them in national plans for entrepreneurship education.
- **Endorse**, and **actively promote** student company activities to schools, heads of school and teachers.
- Ensure that **legal and administrative barriers** to the setting up and implementation of mini-companies are removed;

Schools are invited to take up these programmes, as most of the skills to be acquired through participation in a student company have a **cross-curricular dimension**, including transversal and personal skills as well as basic business skills. Working within a student company fulfils many of the goals and targets set for other subjects, and as such has an added value in relation to all subjects.

Business associations and companies are encouraged to become involved in these programmes as part of their Corporate Social Responsibility strategy. Their support can be financial or in kind (including providing advisers and mentors for mini-companies). Benefits for companies would include the possibility of hiring motivated young people with direct experience of enterprise, and with a set of skills related to creativity, entrepreneurship and innovation.

Further promoting these programmes will be possible if **cooperation** is organized between different departments of the public administrations, local authorities, business associations, NGOs and schools.

1. Introduction

1.1. Background

It is recognised that entrepreneurship is a major driver of innovation, competitiveness and growth. Europe needs a more **entrepreneurial culture**. Following the conclusions of the Lisbon Council in 2000, which defined entrepreneurship as one of the new basic skills that should be provided through lifelong learning, the promotion of entrepreneurial attitudes and skills in our societies through education at all levels has been at the centre of the political agenda of the EU. The role of schools and universities in fostering an entrepreneurial mindset among young people, and in making the relevant skills available, has been emphasised for instance by the European Charter for Small Enterprises¹ and by the Communication on the Action Plan “The European agenda for Entrepreneurship”².

However, learning how to run a business is only one aspect of it. Entrepreneurship should be understood in its broader meaning. Entrepreneurial skills and attitudes provide benefits to society even beyond their application to business activity. They are also a vehicle for personal development. In fact, learning about entrepreneurship will include developing **personal qualities** such as **creativity, taking initiative, responsibility**, which will prove generally useful in life and in any working activity.

In 2002, a **Report**³ coordinated by the Commission under the *Best Procedure* project “Education and Training for Entrepreneurship” **concluded that** although numerous entrepreneurship-related 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, and that as a result of this most students do not have yet the possibility of taking part in entrepreneurship courses and programmes.

In that context, a concrete **definition of entrepreneurship education** was proposed by national experts and put forward as a reference at European level. This definition relates to the different levels of education and clarifies which objectives would be typically pursued at each stage of the educational path. There was a wide consensus on the importance of including two complementary elements:

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

The *Best Procedure* project also highlighted activities based on **students running a mini-company** at school as a particularly effective methodology for fostering entrepreneurial mindsets.

On that basis, a follow-up project⁴ focused in particular on primary and secondary level education in order to identify **policy measures** and **strategies** that would make it possible to

¹ http://europa.eu.int/comm/enterprise/enterprise_policy/charter/index.htm

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

³ Best Procedure project on Education and Training for Entrepreneurship. Final Report of the Expert Group, November 2002.

⁴ Making progress in promoting entrepreneurial attitudes and skills through Primary and Secondary education. Final report of the Expert Group, March 2004.

achieve progress in this area. Conclusions suggest that programmes based on **student companies** should be recognised and supported by the educational authorities and be better embedded into the curricula.

Finally, an **Entrepreneurship Action Plan**⁵ was adopted in February 2004. The Action Plan suggests horizontal measures for the Commission and the Member States to create a supportive framework for entrepreneurship policy and focuses on five strategic policy areas, one of them being “Fuelling entrepreneurial mindsets”. The present Report has been prepared in the framework of Key Action n° 1 of that Action Plan.

In the teaching of entrepreneurship, theoretical studies need to be balanced by a strong component of “**learning by doing**”: the best way to learn about entrepreneurship is by doing something entrepreneurial in practice.

Schemes based on students creating and running **mini-companies** at school can be very effective in developing entrepreneurial attitudes and skills, in particular at the level of secondary school. The objective of **student companies** is that of developing on a small scale a real economic activity, or of replicating in a realistic way the operations of real firms. Though operating in a protected environment and for a pedagogical purpose, frequently student companies produce and sell real products or services. As a result of participation in these programmes students learn how to work in a team, improve their communication skills, develop enthusiasm and self-confidence, become more willing to take responsibility and use their initiative.

In a number of European countries, the contribution of these programmes to the promotion of the entrepreneurial spirit at school is already significant. However, these activities should be further integrated into the education systems and be made more widely available. Also, their final impact on students, and more generally on society, needs to be further assessed

1.2. Objectives and methodology

This European project was developed in the framework of the Entrepreneurship Action Plan, Key Action 1 “Fostering entrepreneurial mindsets through school education”, by using the “*Best procedure*”.

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.

The ultimate aim of the whole process is to encourage policy change in the Member States and in the other participating countries, and one of the essential features of this methodology is that projects are carried out jointly by the Commission and by the national administrations concerned.

This project builds on the conclusions of the *Best Procedure* project on Education and Training for Entrepreneurship and of its follow-up, further exploring a methodology that plays an important role in spreading the enterprise spirit among young people.

⁵ Action Plan: *The European agenda for Entrepreneurship*, European Commission, COM (2004) 70 final, 11.02.2004.

The main **objectives** of this activity were:

- To make an inventory of different methods and providers of these programmes;
- To offer concrete examples of student company programmes, and show how these can be successfully implemented;
- To identify success factors, and possible obstacles and difficulties;
- To highlight good practice in promoting these activities (i.e. support from national or local administrations);
- To gather information in order to estimate the rate of penetration of student companies in secondary education (e.g. number of schools and pupils participating);
- To propose a strategy and relevant policy measures for increasing the application of these programmes.

This activity made it possible to detect different programmes across Europe, and also to identify possible strengths and weaknesses. Raising the awareness of these methodologies should be another important effect of this Report. In this sense, among the primary beneficiaries of this project would be the schools and the Ministries (Economy/Industry and Education). The action should have a strong impact in supporting policy and decision-making at various levels affecting secondary schools.

This activity was open to EU Member States, Candidate Countries and EFTA/EEA countries. In addition to 21 EU Member States, also Romania, Turkey and Norway have decided to participate in this activity.

An **Expert Group** was created for the implementation of this project. National governments were asked to designate an expert. Representatives from some of the main international networks promoting these programmes have been also invited to participate (*the complete list of Experts appears at the beginning of this paper*).

The tasks of this group were: to bring together the necessary expertise; to provide information and data on existing programmes; and, lastly, to ensure cooperation and an active involvement in the project by the national administrations of the participating countries.

Experts were asked to provide both qualitative information (identification of different providers and programmes, examples of good practice, etc.) and quantitative data (e.g. number of schools using these programmes and number of students participating).

1.3. Definition of a student company

This survey has examined methodologies based on **practical experience** and **interaction**. This included both student companies selling real products or services and virtual or practice firms, provided that the simulation is sufficiently realistic and that certain criteria are met. Programmes limited to virtual applications (i.e. computer simulations) that are not supported and integrated by team-working and by interaction - within and outside the school environment - have therefore not been considered.

Hence, one of the first tasks of the expert group was to agree on a number of criteria that define whether a programme or methodology should be included in the scope of this investigation.

The adopted **definition** and related **criteria** are the following:

A student company is a pedagogical tool based on practical experience by means of running a complete enterprise project, and on interaction with the external environment (i.e. the business world or the local community).

Criteria to assess whether a programme satisfies the above definition:

- A.** Students develop a **real economic activity** by running their own company, although in a protected environment and for a pedagogical purpose: i.e. student companies producing and/or selling real products or services;

or:

- B.** In case of **simulation** of economic activity (virtual or training firms):

- 1) Students work in team, in an enterprise project, within the organisational structure of a fictitious company, reproducing the functions, processes and objectives of a real firm; they are responsible for all aspects of management of the simulated firm.

and⁶:

- 2) Interaction outside the school environment is ensured: students carry out their tasks in contact with real firms, or under the direct supervision of business people (acting as mentors, etc.), or liaising with the local community.

In this Report, the expressions “student company” and “mini-company” will be used as synonyms, meaning both companies producing and selling real products or services, and virtual or practice firms complying to the criteria described above.

⁶ Both conditions 1 and 2 need to be satisfied

2. Programmes

2.1. Basic features of student company programmes

The objective of a student company is to develop either a real economic activity on a small scale, or a realistic simulation of an economic activity. Therefore this survey includes both real and virtual mini-companies⁷, provided that certain criteria (as defined in § 1.3.) are met.

In the first case, mini-companies operate in a protected environment and for a pedagogical purpose, producing and selling **real products or services**. Students decide upon the product or service, choose their managers and raise capital. After preparing a business plan and finalising the marketing strategy, they produce or order the product made to their design. The company has to plan how to finance the purchases of raw materials and stock. Students will sell their products or services in the school or out of the school environment, and keep accounts. At the end of the year the company goes into liquidation and students present a report.

In the second case, mini-companies are **simulations** with the aim of replicating the operations and challenges of a real company. Here, the methodologies in use can be very different, as there are different approaches to organising a simulation. Activities can be based on informatics tools (e.g. “*Managing Firm*” programme in **Poland**) and be predominantly run on the computer, for instance in the case of business games. However, even when activities are centred on computer simulations, it should be seen as a necessary condition that students work in a team and that there is some interaction within and outside the school environment, with teachers, mentors, business people or the local community in general. In other words, a mere computer game should not be qualified as a mini-company. Another approach, closer to reality and therefore preferable - at least in general terms - is to set up a fictitious company whose operations will go far beyond a computer application, for instance by providing students with a physical space (the office) equipped with the necessary instruments from where they will run the operations of the company, including all those business and administrative activities that are typical of a real company. Like a real company, the fictitious enterprise is organised in departments (marketing, sales, accounts, logistics, etc.) and students take up all the management roles. Therefore, the main difference between a virtual enterprise and a real mini-company will be that no goods are produced and no actual currency is exchanged. Virtual firms may have a real company as a partner and as a model for their operations (e.g. practice firms in **Finland, Hungary, Austria** and **Poland**), and sometimes even perform real business activities using the products of the partner company (**Finland**).

Typically, the **duration** of these programmes is one school year (9-10 months), although there are examples of programmes lasting 4 to 5 months (e.g. in **Estonia** and **Lithuania**) and even a few weeks only (e.g. in **Hungary**).

While **one school year** seems to be the appropriate time for exploring the complex world of running a business, and for completing the cycle of an enterprise experience (from generating a business idea to putting it into practice, producing, selling and make profit), in some countries a shorter and more “intensive” version of mini-company programmes is available - for instance 8 to 12 weeks long (such as. the “*Get up and Go*” and “*Blast:Beat*” programmes in **Ireland**) - that can be more easily accommodated within the school year and even be run twice, thus reaching more students. Shorter programmes do also exist, for instance taking

⁷ As mentioned in the previous Section, in this Report the words “student company” and “mini-company” are used as synonyms, meaning both companies producing and selling real products or services, and virtual or practice firms complying with the established criteria.

place during one week or even one day only (e.g. “*EBP*” programme in the **UK**), but in the vast panorama of methodologies based on student companies they are a minority. Such a short duration certainly does not allow students to experience entrepreneurship in all its facets. However, even these activities can be helpful in giving students a first taste of running an enterprise project and in raising their awareness.

Most commonly, activities in school take place once or twice a week, for 1 to 2 hours per lesson (making a total number of hours per week normally ranging from 2 to 5). Activities in school can be complemented with **extra-time** or **out-of-school** work and students, in particular when running companies producing real goods or services, devote some of their free time to organising their business operations (development of the product, contacts with providers and customers, sales, etc.). Actually, this methodology is very much based on the enthusiasm and good will of students and teachers.

In some cases, the activity is developed completely outside school hours and on a voluntary basis. Students meet after the normal lessons, but even so they are assisted by a teacher or by a business advisor. Some programmes offer both an “in-school” and an “out-of-school” model (e.g. “*Mini-entreprise*” in **Belgium**).

It is proven that these programmes can be applied in **every type of school**: in comprehensive secondary education as well as in vocational training or in business and commercial schools. They can work as a free-time activity or as an established programme; it just depends on how the national education system is structured and ultimately on the school’s decision.

The role of **teachers** in these programmes is that of **facilitators**. They will not impose their ideas on students, but rather give them support and advice. Students should be free to develop their own ideas and be fully responsible for the operations of the mini-company. The teacher is therefore a tutor who intervenes only to a minimum degree in the decision-making process of the group. This type of methodology is about learning through direct experience: pupils are likely to make mistakes, and to see the consequences of their mistakes.

Some of the tasks typically performed by teachers in facilitating a student company include: assisting the pupils in defining the subject; guiding the group through the starting phase; acting as conciliators in the event of problems inside the group, etc.

Basic **training for teachers** is normally provided by organisations promoting these programmes, for instance through induction meetings, supplying of practical manuals, organisation of seminars and in-service courses, permanent advice. Structured in-service training for teachers is, of course, more easily available, and is provided by the educational authorities, when programmes are part of the established curriculum (as in **Ireland** and **Austria**).

The role played by **business volunteers** in these programmes can be very important, guiding the students through the start-up phase and linking regularly with the class (e.g. “*Junior Achievement Company Programme*” in **Ireland**, “*Impresa in Azione*” in **Italy**, “*Young Enterprise Company Programme*” in the **UK**). The “*Mini-Ondernemingen*” programme in the **Netherlands** seeks to ensure that every company has at least three advisors: a (former) businessman, an accountant and a teacher. School teachers normally do not have enough practical knowledge and experience of how to run a business activity. Therefore, while teachers will coordinate and facilitate the implementation of the programme, and help students in overcoming practical difficulties, business advisors can bring an added value in terms of passing on to students first-hand management experience from the real world. However, finding business volunteers can sometimes be difficult, especially in less developed or more isolated areas.

More generally, interaction and links with the **business world** or with the **local community** are a typical feature of these programmes. In some cases, local municipalities take advantage of services provided by student companies (e.g. “*Summerentrepreneur*” programme of Västernorrland in **Sweden**, “*Student Learning Company*” programme in **Latvia**).

2.2. Which skills are to be acquired through these programmes ?

Entrepreneurship education should be seen in its **broadest sense**. This includes developing those qualities needed to be an enterprising person. As a result of participation in mini-company programmes, students display their creativity, develop enthusiasm and self-confidence, learn how to work with others, become more willing to take responsibility and use their initiative. Acquiring these skills and attributes will contribute to preparing young people for their role as autonomous, participative and responsible members of society. Students who have participated in mini-company activities are more self-reliant, more proactive, more innovative and more likely to seek new products, new markets and new technologies.

A more detailed (although certainly not exhaustive) list of **attributes** and **skills** that students typically develop or acquire through participation in mini-companies is provided below. They are divided into **generic** or **personal attributes** and **skills** and **business skills**. All of them are relevant to **entrepreneurship**, and will help the students to be successful during the continuation of their studies and in their future professional life.

Personal attributes and skills:

- Creativity;
- Team working;
- Problem-solving skills;
- Taking calculated risks, and confronting risk;
- Communication skills;
- Assertiveness;
- Leadership;
- Critical thinking;
- Self-confidence;
- Taking initiative;
- Assuming responsibilities;
- Autonomy;
- Taking individual and group decisions;
- Time management, and keeping deadlines;
- Setting goals;
- Negotiating skills;
- Project management;
- Use of Information and Communication Technologies (ICTs);
- Public speaking and presentation skills;

- Analysing and planning own activities;
- Improving own learning and performance.

Business skills:

- Understanding how a business works, and how wealth is created;
- Entrepreneurial thinking and generation of business ideas;
- Basic economics;
- Experience of key business functions;
- Developing market research;
- Developing a business plan;
- Enterprise organisation and management;
- Human resources management;
- Financial literacy;
- Budgeting and allocating resources;
- Raising finance through shares, sponsors, loans;
- Calculating product cost and profit;
- Accounting;
- Marketing;
- Advertising a product/service;
- Putting on an exhibition, and taking part in a trade fair;
- Sales and purchasing techniques;
- Administrative procedures;
- Understanding health and safety issues;
- Drafting business correspondence, documentation and reports;
- Developing and managing business contacts, interacting with the local community;
- Running a business meeting.

2.3. Inventory of programmes

An inventory of student company programmes in secondary school was carried out as part of this project, based on information gathered at national level and on the adopted definition of mini-company (§ 1.3). In this context, **82 programmes have been identified across Europe** (in 24 countries participating to this study).

The inventory shows that more than half of the these programmes (52) are promoted by organisations that are members of some **European network**, notably *Junior Achievement – Young Enterprise Europe* (26 programmes) and *EUROPEN* (17 programmes).

Although members of the above networks share the same objectives and have basic elements of methodology in common, **differences in the implementation** are found at national level

(for instance, as regards the duration of the programme, the types of schools where it is applied, whether it is run as an “in-school” or an “out-of-school” activity, etc.).

The inventory reveals a certain balance between programmes based on **companies selling real products (49)** and those based on **fictitious or virtual firms (33)**.

The **full list** of student company programmes in secondary education identified as part of this project is shown in **Annex**. This should not be seen as an exhaustive list of all existing programmes in Europe based on learning entrepreneurship through practice, as it includes only activities complying with a set of criteria defined by the expert group for student company methodologies (*see § 1.3.*). Moreover, it was not always possible to gather information about all relevant activities in each country, especially as regards programmes operating at a very local level or just in some specific schools.

2.4. Factors of success and best practice indicators

The increasing success that the student company methodology is having in Europe is due to a number of characteristics that can be considered typical of these activities, and which represent their main **strengths**. These include:

- The strong **connection with businesses** and with the local community, and the involvement of the private sector;
- **Flexibility** and **adaptability** of these programmes to different types of education, and locally to different situations;
- **Enthusiasm** and **motivation** generated in students (even those who lack motivation in more traditional subjects);
- The potential, in terms of **creativity, initiative and innovation** that these activities are able to unlock in young people.

More specifically on the question of how this methodology can be best applied in concrete terms, the Expert Group was asked to identify a set of **key features** to be considered as main factors of effectiveness and of success in implementing student company programmes. These are proposed as indicators for **best practice** in the assessment of programmes based on this methodology.

Actually, many of the programmes identified in Europe by this survey proved to satisfy most if not all of those requisites, which are listed in the table below.

This list does not include elements related to **external framework conditions**, i.e. to the environment in which programmes operate (such as support from public authorities, inclusion in the official curriculum, etc.). These elements will be taken into account later on in this Report, when addressing public policies that are supportive to entrepreneurship education and student company programmes.

Criteria for identifying best practice in running student company programmes:

- 1) The programme places emphasis on **team-working** skills and cooperation between students; an appropriate induction to group work is given to students prior to the actual implementation of the programme;

- 2) Volunteers and **teachers** involved are **qualified** for organising student company programmes, or they are given specific **training** on this subject;
- 3) **Support** and **advice** to teachers and students are available throughout the duration of the programme;
- 4) **Students** are assisted by a facilitator (teacher, tutor, mentor), but have **freedom** to develop their own ideas and are fully **responsible** for the operation of the mini-company;
- 5) Specific **teaching material** on how to facilitate and how to run student companies has been produced and is available (manuals, guide, etc.);
- 6) The programme is **flexible**, applicable in a wide variety of contexts and easy to integrate into school activities, both within the classroom or as an extra-curricular activity
- 7) Mentors and advisers from the **business world** participate in the implementation of the programme;
- 8) **Events** external to the school, such as trade fairs, are organised;
- 9) The programme is supported by the **local community**;
- 10) Tools for the **evaluation** of the programme are regularly used;
- 11) **Networking** between teachers is ensured for mutual assistance and learning, as well as the development of national and international contacts between teachers, students and other actors involved.

3. Some examples of good practice

As previously mentioned (§ 2.4.), many programmes identified through this survey proved to satisfy all or the majority of criteria set by the Expert Group for identifying best practice in implementing student company activities.

This Section gives a few examples. Although these are based on certain common principles, they reveal a diversity of methods and solutions as regards teaching entrepreneurship through project-based work. They are proposed here not as the best in Europe (a full list of best examples would be much longer), but as a meaningful selection of good practice cases.

3.1. «La Mini-entreprise en classe» (Belgium)

This is a structured project which takes **five hours of the weekly schedule** and is managed by **a team of teachers**: at least two teachers are present at all times during the course. The average number of participants is 12, and the maximum 23. They are pupils aged from 16 to 19 in general, technical and vocational education. Teachers are supported by staff of the asbl (*non-profit organisation*) "*Les Jeunes Entreprises*", who provide supporting documents and guides, organize seminars, etc.

The activity takes place in class **within the established curriculum**, but is also continued outside the school as a voluntary activity on the part of the pupils. In any case, production requires that pupils work overtime. By the same token, sales activities are mainly organized at evenings or during the weekend. The fact that, in this "**in-class**" **model**, the teacher incorporates the methodology into his/her courses makes it possible to examine certain matters in more detail than in an out-of-class and completely voluntary activity.

Each mini-company is supported by one or two **advisers** coming from the business world, who agree to put their experience at the young people's disposal. Relations with suppliers and customers provide an opportunity to interact with the real business world out of the school.

For an effective evaluation, the tools of the asbl "*Les Jeunes Entreprises*" are used. In addition, teachers prepare data documents and sheets to allow the participation of pupils to be more fully assessed. A **final exam** takes place at the end of the year. If the mini-company activity is judged positively by both the team of teachers and the external advisers, the students are presented with a **certificate** of "successful development of the project" by the school. In addition, if the students fulfil a number of conditions set by the asbl "*Les Jeunes Entreprises*", a "young entrepreneur" certificate is issued.

Contact:

asbl "Les Jeunes Entreprises"
www.lesjeunesentreprises.be

3.2. Practice Firm in Merikoski Vocational school (Finland)

Practice firms are used in secondary vocational education at national level in Finland. The company itself is fictitious, but some practice firm students have engaged in real business activities using the partner company's products. *FINPEC* (Finnish Practice Enterprises Centre) is the organisation promoting practice firms in Finland.

The length of practice firm training varies approximately from three months to 1 year. An interesting application is to **replace the curricular course by a business planning activity**,

thus prolonging the duration of practice firm activity (in some form) to 3 years. The pedagogical objective is for students to become familiar with business planning, be able to work in different tasks in the firm, understand the business as a whole and learn a set of soft skills. Practice firms interact actively with other practice firms and with the outside world, especially with the partner company at the beginning of the practice firm period.

The **Merikoski Vocational school** has replaced standard courses within the curricular framework by a **practice firm's business plan**. That business plan guides students during the whole duration of their studies (3 years). Where before the established curriculum provided guidance on what was to be studied, now the business planning activity orientates the different blocks of the study programme. The first two years are dedicated to planning and preparation, and improving the work done. The third year is for the actual practice firm activity.

The business plan is developed in co-operation with the **partner company** and financier, which creates significant added value for students. Representatives from partner companies sit on the board of the practice firm to guide its operation and provide incentives to the operation.

In this example, practice firm students have actually taken part in the business of a partner company by selling its products. This has created added value for students. Students have also performed some test marketing for the partner company at international practice firm fairs. These experiences have proved to be very effective for the students' learning and adaptation process.

Contact:

Finnish Practice Enterprises Centre (FINPEC)

www.finpec.fi

3.3. The “Get Up and Go” Mini-Company Programme (Ireland)

'Over the years, the 'Get up and Go' programme has become the **most widely used** student company programme in schools, offering mini-companies as part of the Transition Year Programme. The Transition Year is a curricular programme offered by nearly 70% of secondary schools, designed to ease the transition from the Junior Cycle to the Senior Cycle. It sets out to prepare students for the world of work in a pre-vocational environment, and includes the development of entrepreneurial skills.

The “Get Up and Go” Mini-Company Programme is therefore a **curricular activity**, which may run as a 10-week module, but best practice would be a full year. It is recommended that **the entire Transition Year class** should constitute the “company”, with managerial positions being competed for by interview. Alternatively, smaller groups within the class may also form distinct companies, but the replication of “real life” experience is often best achieved through the large group.

The teaching manual developed as part of the 'Get up and Go' programme is divided into **ten sections**. Each section deals with particular aspects of the mini-company programme:

- 1) Introduction to mini-companies including benefits of the mini-company, methodologies used and decisions on products
- 2) Selection and organisation of mini-company team.
- 3) Communication
- 4) Mini-company Registration

- 5) Marketing
- 6) Legislation
- 7) Business Plan
- 8) Finance
- 9) Closing down and winding up the mini-company
- 10) Trade fair/showcase

Through participation in the “Get Up and Go” Mini-Company Programme, students have opportunities to develop enterprise skills in a non-threatening environment in the classroom; opportunities to display and celebrate such skills are also provided by trade fairs, competitions and project work. Students are intrinsically motivated through ownership of and engagement with their own developed ideas. Students are empowered, as they feel they have control over their learning, and the teacher becomes a facilitator rather than a deliverer.

Contact:

Transition Year Support
 Second Level Support Service
<http://ty.slss.ie>

3.4. JUNIOR - "Junge Unternehmer initiieren - organisieren - realisieren" (Germany)

Students in 9th grade or higher from all types of secondary schools take part in the JUNIOR student company programme. The mini-company is divided into **several departments**. Each student fills a specific position and function. Every firm is responsible for marketing, procurement, accounting and finance. Junior-Student-Companies products are innovative, in line with the market, and are market price-oriented. After one school year the Mini-Company is liquidated and the dividend is paid back to the shareholder.

Events like trade fairs, national and regional contests are incorporated into the programme. At national and international fairs, JUNIOR-companies get a chance to present themselves, their products and services and, at the same time, get in touch with other student companies.

Student companies are **counselled throughout the year** by the JUNIOR-office. The JUNIOR-Office, a business segment of the *Institut der deutschen Wirtschaft Köln (Cologne Institute for economic research)*, enables student-companies to get in touch with other companies, real businesses and associations.

In addition to the counselling, every student and supervisor receives information material about how to run a company. Workshops, booklets and material on the Internet are available on special topics, such as marketing and accountancy, through which the students receive further input for a successful business management. Mentors and auditors from the business world are also involved in the programme, and provide students with information and advice. Students who successfully complete the programme receive a certificate that is well-known in the business community.

Partners of JUNIOR at a national level are *KfW Mittelstandsbank, Gothaer Versicherungen, Handelsblatt*, the Federal Ministry of Economics and Labour and the Employers' Federations as well as Chambers of Commerce. In the *Länder* of the Federal Republic JUNIOR is supported by a wide range of companies, banks, ministries and associations.

Contact:

3.5. "Une entreprise dans votre lycée", Académie de Rennes (France)

All secondary education institutions of the Academy of Rennes can participate in this programme, including public and private schools (*lycées*) in comprehensive, technical and professional education.

A **competition** takes place each year in May with ten teams of students (12 students per team on average) from the institutions of the Academy of Rennes, before a jury composed of professionals. Each team in the competition presents the company that it has created in school, by reproducing and developing the conditions of start-up and operation of a real company.

Training of teachers is ensured by the *Rectorat* and by the Chamber of Commerce and Industry. **Quality Partnerships** are built with **local companies** in order to give young people their support in form of sponsorship, advice and collaboration.

From a product or service idea, students are associated in creating their own company. They lodge their file with a committee made up of representatives of the partners of this action. After the administrative and legal setting up of a **fictitious company**, the project promoters share responsibilities and tasks within a precise flow-chart: market research and competition, registering of the company name with the *INPI*, creation of a logo, technical development, negotiations with the suppliers or subcontractors, marketing, and sales, etc.

During the closing day, which involves all the participants, each company has to present a review through a company stand and an oral presentation before a jury made up of representatives of partners and of heads of company. The three best companies are awarded a prize by the regional council.

This programme enables a team of young people to come together around a project. It implements teaching methods which contribute to the development of pupils' autonomy and to their opening-up to the economic environment. Examples show that, in a number of cases, young people have finally **put into practice** their project of enterprise creation, while in other cases particularly innovative and reliable projects have been developed by local partner enterprises.

Contact:

Académie de Rennes
ce.daet@ac-rennes.fr

3.6. Integrated approach to entrepreneurial education in a Business Polytechnic (Hungary)

A secondary school in Hungary (Business Polytechnic) has built an interesting **integrated system** for entrepreneurial education.

1. Students (**age 16**) participate in the Young Enterprise student company programme in their second class. (**Learning by doing**). In the programme, achievers set up and run their own company throughout one academic year. They elect a board of directors from amongst their peers, raise share capital, and market and finance a product or service of their own choice. They deal with real money, produce real products, and take part in trade fairs. At the end of the year they liquidate the company and present a report and accounts.
2. The next step takes place through **theoretical business studies**. (**age 17-18**)
3. Students participate in a Practice Firm (**age 19**) to acquire special **vocational knowledge**. The training method involves a room of a suitable size and up-to-date technical equipment as well as a fictitious enterprise. The training provided supplements and deepens theoretical knowledge, providing opportunities for the most practical learning and simulation of the world of commerce and business activities. Activities are directly or indirectly related to the operation of an actual enterprise. The office has established a relationship with the enterprise on which the fictitious one is modelled and the model office is copying its operations, using its business documents etc.
4. Finally, the school has an incubator-house and programme, giving students the possibility to **develop their own real business**.

Contact:

Business Polytechnic

www.poli.hu

3.7. Junior Achievement Student Company Programme (Estonia)

The student company programme is offered by *Junior Achievement Estonia*. Participants are higher secondary school students, mostly age 16-18, but also from lower secondary school (age 13-15). The programme is developed for not more than one school year, and normally runs for five months. Students work under the supervision of a consultant or (more often) a teacher who has received training in facilitating student companies.

A student company may involve the whole class of students (rarely) or smaller groups (3-7 persons). Students decide upon the product or service, choose their managers and sell shares to raise capital. They produce or order the product made to their design. They sell the product and keep accounts. During the school year, students participate in local and national student company trade fairs. At the end of the period they present a report to JA Estonia.

Schools and teachers are prepared by Junior Achievement Estonia. The first step is initial training of teachers in the methodology of teaching and facilitating student companies. After that, advanced training is regularly offered. Also, permanent advice is given to schools and teachers using the student company programme by specialists of *Junior Achievement Estonia*. In training sessions, the specific competence of business people and universities is used. Learning materials have been developed by *Junior Achievement Estonia* to be used by students and by teachers.

A great source of business volunteers is **alumni** who have graduated from the programme and come back to support teachers. A **new programme** has been started to teach them how to become junior advisors for younger ones at schools. Through this programme a dual benefit effect is expected: for student companies, who get fresh experience and excitement from their peers and also for older students, who get their first teaching experience.

Contact:

Junior Achievement Estonia.

www.ja.ee

3.8. *Empresa Joven Europea – EJE (Spain)*

The government of the Principality of Asturias is playing an active role in the promotion of entrepreneurship education. Valnalón, a government company owned by the Department of Labour and Industry, works with the Department of Education and Skills designing and implementing entrepreneurship programmes at different levels of education.

The programme *Empresa Joven Europea (EJE)* 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. This official recognition led to a steady increase in the number of schools and students involved, not only in Asturias but also in other regions of Spain.

Empresa Joven Europea is aimed at students aged 12-16 years. Throughout a full academic course, students start up and manage **import-export companies** involved in real trade activities with student companies abroad. Students will communicate via video-conference and e-mail with partner companies abroad, place and dispatch orders and sell imported goods at the local trade fair. Eventually, profits are distributed among the partners of the company and a portion of profits goes to an NGO or any other community project.

Besides fostering the entrepreneurial skills of pupils, the programme considers **new technologies** as an integral part of the teaching-learning process. Also, positive attitudes are promoted toward **foreign language** learning as an instrument of communication between partner mini-companies located in different countries.

Valnalón publishes **teaching resources** with regional government funding. In order to favour dissemination, student and teacher books are completely free for students and teachers in Asturias schools. Teaching materials deal with theoretical and practical aspects. All activities were designed by a workgroup consisting of secondary school teachers, educators, and business education experts.

A consistent **dissemination strategy** was devised and has borne fruit in the form of a widespread network of schools all over Spain, with secondary schools in Andalucía, Asturias, Balearic Islands, Canary Islands, Madrid, Navarra, Basque Country and Valencia participating in the programme. There is cooperation with schools in Mexico, the United States, Canada, the UK, Sweden, Norway, Poland and Slovakia.

Contact:

Valnalón Ciudad Tecnológica

www.valnalon.com

3.9. *Project: Summerentrepreneur in the county of Västernorrland (Sweden)*

This programme is applied at a **regional level** in the county of Västernorrland. Since 2002, it has been running in the towns of Örnsköldsvik, Sollefteå and Kramfors.

The duration is 8 weeks, **during the summer holidays**, and it is aimed at young people from 17 to 19 years old.

The aim is to let young people gain the knowledge and experience of running a company and to learn entrepreneurship during their summer holiday, thus creating their own **summer job** instead of having a job given to them by the municipality. In fact, in Sweden it is a common practice for municipalities to offer young people a summer job in their area of responsibility (for example, gardening, etc.).

The project starts with a two-week introduction course, combining theory and practice. During these two weeks participants get a subsidy from the municipality. (55-65 Swedish crowns per day). Then they run their own company for **six weeks**.

The summer-entrepreneurs get a special F-tax (a sort of tax permit to run a company) from the beginning of June until the end of August. At the end of August the entrepreneurs liquidate the company and submit their own income tax return to the tax authority.

Interaction with businesses or with the local community is ensured thanks to the participation of advisers or counsellors from industry, the municipality or other organisations.

Contact:

Open for business in the county of Västernorrland
www.ofb.nu

3.10. Young Enterprise Company Programme (UK)

The YE Company programme is developed through a **long established UK-wide network** organisational structure. This structure has an excellent track record of **engaging business in partnership with the public sector to provide the resources** of funding, facilities, people and materials to deliver their tried and tested programmes. The YE Company Programme materials are refreshed on a 3-year cyclical basis and make appropriate use of CD and website technology whilst remaining grounded in good printed materials.

The programme has proven itself to be **replicable** and capable of being scaled up on a national level, whilst retaining the personal commitment of **local** people to deliver to students.

The Young Enterprise Company Programme (aimed at students aged 15 to 19) gives thousands of students each year the opportunity to prepare for working life through the experience of running their own company, supported by **volunteer advisers from business**, over the course of one academic year. The volunteer advisers from business are essential to the smooth and successful running of the programme, as it is they who guide the students through the business process.

Students elect a Board of Directors from amongst their peers, raise share capital, and market and finance a product or service of their own choice. After producing a business plan and finalising the marketing strategy, the company has to plan how to finance the purchases of raw materials and stock. The production of a prototype should reveal any practical difficulties and give some idea of the number of finished items that can be produced in a given time. The Operations Department will make plans for the production and assembly of the component parts of the product.

During the year the YE Area Board organises at least one Trade Fair and there are also larger regional, national and European trade fairs. All these activities allow achievers to meet other achievers from different companies and, in the case of trade fairs, to sell their products. At the

end of the year the company goes into liquidation and students present a report and accounts to their shareholders. Students gain experience of the real world, taking responsibility and being accountable to their shareholders for the running of the business.

Contact:

Young Enterprise UK

www.young-enterprise.org.uk

4. The current application of programmes: dissemination, main obstacles, evaluation

4.1. Student companies at the different levels of education

It is in **secondary level** education (and particularly upper secondary) that student company programmes are more widespread, and that they can be more effective. Experience shows that a real or fictitious company can be successfully run by a team of secondary school students, who are intellectually and socially ready to bear responsibility for working autonomously on a complete enterprise project. It is at this stage that young people will need to complete the acquisition of personal and non-specialised skills, such as team working, communication and project work, which they will need in their future professional life. Also, during secondary school students will start thinking about their future career; therefore, exposure to entrepreneurship can have the highest impact. Finally, in secondary education young people are still allowed to experiment and find their way (including through making mistakes) without too much pressure.

Nonetheless, student company programmes are also applied successfully in primary education and at university.

In **primary school**, the activities and tasks to be performed are simpler, and programmes have a shorter duration (for instance 2-3 months, or just the time needed to develop a specific project). The methodology will be more oriented towards learning by playing, through experimentation and games. Emphasis will be rather on attitudes (team working, initiative, etc.) than on business skills. Activities already existing inside the school will be often used (like organising a bazaar, raising money for a school trip, etc.), or the student company may be organised around a certain event (like selling products at a Christmas Fair). Basic economic literacy will be provided, for instance through stories, games and simple activities. Children will become more aware of how the world outside the classroom is organised. Visits to local businesses form part of these activities. Meetings with business representatives will be also included in student company methodologies at this level.

Yggdrasil (reconstructing the Viking age) - The Grinder school entrepreneurial project

In Norway, the *Grinder* school in Grue is a primary school in an inland community. There was a settlement there during the late Iron Age, which is the early Viking age in Norway.

Pupils in 5th and 6th grades have reconstructed a Viking-age farm within the school grounds. In these houses the pupils recreate Viking life in the community and dress in Viking clothes, cook meals based on food types from the Viking era. Part of the project is also to demonstrate the carding of wool and other activities that have to do with everyday life and culture in Viking times.

The entrepreneurial aspect is fund-raising from local and national institutions and the involvement and coordination of all the actors. This pedagogical concept sees the participation of the whole school. Additionally it involves local entrepreneurs, the community, parents, local and national museum experts.

At **university level**, the methodologies used have a stronger focus on business planning and generating business ideas. More theoretical knowledge needs to be provided at this stage, and companies will be guided towards innovation and knowledge-based activities. The student company activity has less a pedagogical purpose and is more aimed at finding real working opportunities for students, i.e. moving to the real business environment. Students at this level

will be capable of directing the learning process entirely by themselves, with full autonomy and responsibility. They will have more freedom in arranging meetings with business advisors. The programme will be less structured, and there will be limited hands-on guidance. This also means that the operational environment is less protected, and that the business risk increases. Student company programmes at this level of education need to be even closer to real life, and may often end up with starting a real company. Incubators may also accompany students to put their business idea into practice.

Junior Enterprises at university – JADE (European Confederation of Junior Enterprises)

Junior Enterprises are non-profit associations entirely managed by students, integrating knowledge from universities with practical business experience by running consulting projects for companies in various sectors.

Students acquire soft skills like entrepreneurial spirit, team-working, creativity, presentation skills, project management. Members of Junior Enterprises perform an extensive range of services (business and technical studies, etc.) for different kinds of companies in all sectors.

Possible bridges and links

Bridges could be created to make it easier for students to pass from programmes applied in secondary schools to programmes at university level.

Running a mini-enterprise in secondary school can be a very effective introduction to entrepreneurship programmes in higher education, where setting up a small business – during or after the studies - is clearly one of the objectives. These programmes require students to learn how to draft a real business plan, and those who have gone through a company programme during their school time are certainly better equipped for this task. Also, contacts made with businesses during secondary school may be useful for students at tertiary level when engaging in research and completing their projects.

With a “signed certificate of successful completion” from a recognized enterprise education provider at secondary level, students could apply for a more advanced level of enterprise programming at universities provided that those higher institutions recognize the certificates. Alternatively, an examination could be used in order to test students’ grasp of the fundamentals of running an enterprise, which students could then present to their post-secondary institution.

In **Latvia**, students having experienced the whole cycle of a student company (from registration to liquidation) receive a *Junior Achievement Latvia* certificate, and an agreement has been signed with some universities to take this certificate into account in the enrolment of students.

In **Austria**, the Practice Firm programme is applied in two Economic universities, and business cooperation is encouraged between practice firms operated by students at secondary and at university level. These universities also offer basic training for future practice firm teachers, in cooperation with further training institutes for teachers.

At European level, two major networks promoting student company programmes in secondary and in tertiary education, *JA-YE Europe* and *JADE* (coordinating *Junior Enterprises* in higher education), have recently established a cooperation agreement.

4.2. Obstacles and risk factors

One of the objectives of this survey was to identify main problems, obstacles, weaknesses and risk factors encountered by programmes based on this methodology. This, in order to indicate actions and directions that all the relevant actors, including public administrations, external promoters (like NGOs), schools, businesses and business associations, could usefully take in order to improve the efficacy of such programmes, to expand their presence in the education systems and increase student participation.

An overview of most of the existing student company programmes in Europe, and the judgment of experts in this area, have made it possible to highlight some of the main obstacles to a further expansion of these concepts. They are listed below.

a) The **tight framework** in which some schools operate (not enough flexibility)

In some cases, and to varying degrees, schools do not have the necessary independence and autonomy (pedagogical, administrative, financial, etc.) to engage in extra-curricular activities and/or to link with the local community and with private actors such as businesses. The school is confined in its own space and is not allowed to have an interface with the economy. Schools should be empowered to create a learning environment that supports the acquisition of cross-curricular competences such as entrepreneurship. They should have the appropriate resources in terms of time, financial resources and flexibility to coordinate activities aimed at developing pupils' competences. They should be encouraged to also organise courses outside the framework of formal education provisions, since this would improve their capacity for taking new initiatives. If an educational programme is not set as an official part of the syllabus, schools are afraid of applying it. Moreover, mini-company programmes give students a great deal of independence. It is then very difficult to supervise them using conventional teaching tools, to give conventional marks, etc. The introduction of these programmes requires a liberal way of thinking and an entrepreneurial attitude on the part of the school and the teachers.

b) **Funding**

Very often, these programmes are promoted by NGOs and by other organisations external to the education system, and take place outside the official school curriculum. This means that additional financial resources are needed. For instance, these programmes may not be able to pay teachers for the extra work they devote to mini-companies, or for travel costs to participate in national or international trade fairs, etc.

c) The **extra workload** for students and teachers

These programmes are very demanding for students and teachers alike. Running a mini-company is a time-consuming process. Therefore, achieving a good level of motivation at the beginning of the programme is very important in determining how the students will succeed and learn through the programme. However, it may be difficult for the students to combine work in the company with success in the other subjects that are part of the curriculum. As regards teachers, due to curriculum overload many of them do not have sufficient time for the teaching of enterprise and the setting up and running of mini-companies. Engaging in out-of-school activities provides many opportunities and benefits for students, but it also brings with it the problems of supervision and insurance for such activities. Teachers have to participate in the evening events for coaching, and because of security in the school.

d) Lack of appreciation – and reward - for **extra commitment** by teachers;

As mentioned above, running mini-company programmes often requires an extraordinary effort from teachers that goes beyond normal teaching hours. Teachers normally have a heavy workload, and many lessons. If this extra commitment is not recognized and rewarded, this may lead to a lack of motivation to get involved in such activities. In this sense, having student company programmes included in the school curriculum can be of great importance.

e) Programmes require **new teaching methods** from teachers;

Running these programmes requires teachers to change their traditional pedagogical approach. While at the beginning the teacher will provide basic knowledge and explain key business terms to the students, his role will then move more towards that of a facilitator, adviser and silent observer. The teacher will pass responsibility for decision-making to the students, as it is by taking responsibility for their own learning that young people grow in the qualities and skills of entrepreneurship. Therefore, teachers need to be carefully selected and trained. Induction training should focus on how to run a mini-company, on pedagogical methodologies based on team work and project work, and include knowledge of objectives and skills to be achieved by the students from engaging in these activities.

f) Finding external **advisers/volunteers** ;

The development of links with the world of business, and the availability of mentors and advisers from local businesses, is a key element of successful mini-company programmes in schools. While the role of the teacher will be that of assisting and facilitating through the various stages of the programme, students need advisers from real companies who will provide an added value of experience and will help them to learn more about business and entrepreneurship. It can sometimes be very difficult to find enough advisers from businesses, as entrepreneurs and business people are obviously extremely busy. Especially in isolated areas, schools may not have access to as great a variety of business mentors as they would like. Success of these programmes depends very much on the good will and availability of business people and local firms who agree to volunteer.

g) Lack of **acceptance** by other teachers and head masters of schools;

Schools at all levels, starting from their headmasters and directors, should recognise the importance for young people of developing entrepreneurial attitudes and skills, and the efficacy of mini-company programmes in this respect. They should become committed to this new approach in teaching, and support the teachers in implementing it. Many teachers resent the amount of time devoted to the teaching of entrepreneurship and to mini-company programmes in schools. Much work remains to be done if all members of the staff are to accept mini-companies as being educationally worthwhile. Public authorities should play a more active role in achieving this objective.

h) Legal and administrative **barriers**;

In a number of countries, mini-company programmes face practical difficulties related to problems of a legal or bureaucratic nature. In fact, the legal status of student companies is not clear, and no specific regulation exists as regards administrative procedures, payment of taxes and VAT, insurance and liability, etc. Mini-companies should be rightly seen as a pedagogical tool and not be subject to the same administrative and fiscal burden of real companies, as this creates a serious impediment to their use by schools. In some countries these programmes cannot be officially recognised because the taxation law for companies does not allow an exception to be made for educational programmes (*this issue is further developed in § 6*).

i) No support or endorsement from **public authorities**.

One of the main obstacles highlighted by national experts is insufficient support from public authorities (particularly the Ministry of Education) in promoting student company programmes to schools. As schools and teachers have a certain degree of autonomy in deciding which courses will be offered to students, and entrepreneurship is not yet widely accepted as a learning objective by the school and education community, there is a need for promotion and persuasion. In this respect, it is essential that the ministries of education play an active role. Finding a place in the school curriculum for these programmes – as an option within the wider objective of fostering the entrepreneurial culture – would be an important step. If schools can teach the programme inside the curriculum this will increase the motivation of teachers. Also it will be possible to plan the curriculum so that students' work load is not too heavy, if the programme is part of it. Finally, public authorities are also responsible for the inconsistent legal or administrative framework that sometimes discourages the application of such activities in schools (*these issues are further developed in § 6*).

4.3. Quantitative data on the application of programmes

In this Section and in the following Table, **estimates** are provided of the rate of **penetration of student company programmes in secondary school**, as regards the involvement of educational establishments and participation by students. These estimates are based on quantitative data gathered under the responsibility of designated national experts. In a number of countries, this type of information was not available for all the existing programmes. However, even in those cases, most of the existing activities, and the main ones in quantitative terms, were included in the survey. As the figures on which these estimates are based did not represent all existing programmes in Europe, the rate of penetration of programmes, and particularly the participation of students, is probably underestimated. Therefore, the indicative figures provided should be considered as the closest possible approximation to reality on the basis of the information available.

Students taking part in mini-company programmes are still a minority. During the 2003/04 school year, in most countries the rate of secondary school students involved in these activities was below 1% of the total. The countries with the estimated highest participation of students (above 2 %) were **Ireland, Lithuania, Austria, the UK and Norway**.

It is estimated that, every year, **at least 200 000 students** in secondary schools (but the actual number is probably higher) take part in these programmes in the EU 25 and Norway. This figure is drawn from a selected sample of the most widespread programmes in each country, among those listed in the Inventory shown in *Annex*.

However, as these programmes should not be imposed on students, but rather promoted and made available to all those potentially interested, what is probably more significant in a longer term perspective is the number of schools that have decided to offer this option to their students.

Countries where these programmes seem to be more widespread in secondary schools (it is estimated that between 40 and 50% of all secondary schools participate) are **Ireland**, where a great variety of student company activities exist, most of them being incorporated within programmes that form part of the official curriculum, and the **UK**, where especially *Young Enterprise* has a long and well established tradition. After those two, there are countries where it is estimated that around 30% of secondary schools offer mini-company programmes (**Belgium, Luxembourg, Norway**). In all remaining countries, the rate of participation of

secondary schools has been estimated at between 3% and 15%. However, even the lowest rates of school involvement would rise to between 10 and 20 % if **upper secondary** education alone is considered.

In all countries (with the exception of **Norway**) the vast majority of students take part in these activities in their **upper secondary** education. In some countries, mini-company programmes are not even offered at lower secondary level.

As regards their use in **comprehensive or general secondary education** rather than in **specialised secondary education** (vocational, technical or commercial), the picture is fairly mixed, with countries like **Germany** and **Sweden** where participation is considerably higher in comprehensive education, and others like **Austria** and the **Czech Republic** where the situation is the opposite.

Limited information available on participation by **gender** shows a good balance between males and females, with female participants even prevailing in some cases (e.g. *Junior Achievement Company Programmes* in **Estonia** and **Latvia**, where female participants account for over 60% of the total).

There are no programmes in operation at the moment based on the methodology of students running a mini-company in **Greece** and **Turkey**. However, a major initiative will be launched in **Greece** from the school year 2005/06 (*see Section 6.1.*). Also, in **Turkey** preparatory studies are ongoing in order to include student companies in the curricula of vocational education, making use of the results of this Report.

Quantitative data were not available for **Spain, Italy, the Netherlands, Romania** and **Slovakia**.

TABLE: ESTIMATED PENETRATION OF STUDENT COMPANY PROGRAMMES IN SECONDARY SCHOOLS

	Belgium ⁸	Belgium ⁹	Czech Republic	Denmark	Germany	Estonia	France	Ireland	Latvia	Lithuania	Luxembourg	Hungary	Austria	Poland	Finland	Sweden	UK	Norway
Estimated % of secondary schools involved in 2003/04 (lower + upper, all types of schools)	20-25 %	25-30 %	3-5 %	3-5 %	5-10 %	5-10 %	3-5 %	40-50 %	5-10 %	5-10 %	25-30 %	15-20 %	10-15 %	5-10 %	3-5%	10-15 %	40-50 %	30-40 % ¹⁰
Number of students participating in a selected sample of programmes during 2003/04 ¹¹ .	1.500	4.989	6.375	1.271	10.532	504	4.432	13.656	685	2.450	168	5.470	16.300	19.913	1.199	10.050	45.982	45.592

⁸ Data for the French Community.

⁹ Data for the Flemish Community.

¹⁰ This percentage is calculated on the total number of primary and secondary schools, as there are mini-companies in primary school as well, and in the Norwegian system primary and lower secondary education are often combined. This percentage would probably be higher if only seen in relation with secondary school

¹¹ Figures from a selected sample of some of the most widespread programmes in each country, among those listed in the Inventory provided in Annex .

4.4. Evaluation and impact

This Section aims to provide an overview of the tools that are currently used for the **evaluation** of quality and effectiveness of these programmes, and of existing research aiming to measure their final **impact**.

- *Evaluation of programmes*

Any evaluation of student company programmes will aim to measure or assess:

- a. Competencies acquired by the students;
- b. Developed attitudes and intentions towards entrepreneurship;
- c. Appreciation of the programme by the students.

Not all student company programmes undergo a regular evaluation, although in most cases feedback from teachers and students is gathered during the programme and/or at the end of it. This can be considered as the simplest and most commonly used methodology of evaluation, and is developed by means of tools such as:

- **Self evaluation** by the students through questionnaires;
- Students drafting documents and **reports** during the project, to be assessed by teachers, business advisors or staff from the organisation promoting the programme;
- Reviews of the **performance** of the students, and of the mini-company as a whole, by teachers or business advisors;
- Questionnaires to be completed by **teachers**.

A number of programmes combine two evaluation tools: a general survey based on a questionnaire compiled by students, and a written report where students are asked to evaluate their specific experience in order to provide a more qualitative assessment.

Also, as the teacher in these programmes is a facilitator who follows the various stages of activity of the mini-company, supports the students and provides help and advice during the whole process, a direct and immediate evaluation can be made by the **teacher/trainer** on the basis of constant observation: how students perform assigned tasks, the initiative they show, how they solve practical problems, etc.

A **survey** on participating students should be preferably carried out both at the beginning of the activity and at the end, in order to be able to measure changes in attitudes and new skills acquired (both generic skills and business skills). Some programmes regularly carry out telephone interviews with a sample of students at the end of the school year.

A useful measure suggested in order to maximise the results of evaluation is that surveys aiming to detect progress in the acquisition of competences and attitudes be compared with information from sample groups of students who **were not** involved in mini-company programmes, therefore highlighting the added value for students of participating in the activity.

Programmes operating within the structure of the **national curriculum** are more likely to be regularly evaluated, for instance by means of examinations (like in **Austria**, where programmes are part of the state final exam) or through evaluation of the quality of teaching and learning in schools made by public inspectors (this is the case for instance in **Ireland**).

An evaluation is normally carried out by the promoting organisations in the context of nationwide competitions for the best mini-company. More generally, some evaluation of procedures is carried out by the promoting organisations analysing quantitative and qualitative data.

Less frequently used evaluation tools are:

- An **examination** at the end of the programme;
- An evaluation run by an **independent** entity or committee;
- **Focus groups** to take place at the end of the programme.

As regards an **examination** at the end of the programme, it could be carried out most effectively through practice, i.e. by students participating in a business day or case study at the end of the programme, where they can concretely apply skills and concepts acquired, while their behaviour is assessed. For instance, students will work in a virtual firm for a whole day, dealing with extensive business cases and entrepreneurial challenges, carrying out different tasks and transactions to show achieved competencies and know-how for running a company

The **Young Enterprise International Examination** is awarded by **University of Cambridge International Examinations**, in order to measure knowledge and skills acquired by students participating in the *Junior Achievement–Young Enterprise Company Programme*. The examination is based on a case study of an entirely fictional mini-company which is sent to Achievers prior to the examination. Students are then able to spend time with fellow students and business advisers discussing their own company’s experiences in comparison with the case study. This examination aims to assess what a student has actually gained from the student company experience, and is based on those key skills that every participant is able to develop. This is a voluntary qualification open to participants from the *JA-YE Europe* network in all countries. It provides a global recognition of achievement through certification to an internationally agreed standard.

Another useful evaluation tool is running a **focus group** where teachers and students can discuss and analyse in detail the strengths and weaknesses of the programme, difficulties faced by students and skills acquired. The focus group can take place both prior to participation in the programme and at the end of it (this approach is used, for instance, in **Ireland** for the *Transition Year “Get up and Go” Mini-Company Programme* and for the *Junior Achievement Company Programme*).

A highlighted methodology - although not one that is frequently used - is to have an independent evaluation of the programme carried out by an external agency.

The European network of Practice Firms is implementing the **EUROPEN quality certificate**, which sets common rules for the evaluation of virtual firms. The establishment of quality criteria at European level was supported by the Commission through the “Leonardo da Vinci” programme¹².

Effective evaluation of mini-company programmes in the school will enable successes to be celebrated, areas of difficulty pinpointed and plans put in place to eliminate known weaknesses. In the evaluation process, school management should try to take into account the views and opinions of all those involved in the mini-company programme, including students,

¹² More information about “Analysis and development of minimum quality criteria” can be found at the EUROPEN web page: www.europen.info/leonardo .

co-ordinators of mini-companies, teachers, volunteers from business and the local community, parents and promoting organisations.

- *Impact of programmes*

Main indicators proposed for the analysis of impact are the following:

- a) The **attitudes** developed by students towards entrepreneurship;
- b) The number of students **starting a company** after their studies.

Concerning the second indicator, research could more generally highlight how and to what extent these programmes have been **helpful to the students afterwards**. Besides the number of students starting a company, information could be provided on the subsequent careers of alumni, i.e. what types of job they have, and their employment rate. It is essential to compare figures with those of other students who have not participated to such programmes.

At the moment **there is not sufficient research** in Europe on the impact of mini-company programmes for students. Very few surveys have been developed so far, at national level and for specific schemes.

However, the limited evidence available does **support** the effectiveness of these programmes in promoting the entrepreneurial spirit of youngsters in a tangible way.

In 2002, **Young Enterprise Sweden** carried out a **survey** on students who had participated in the Young Enterprise mini-company programme since 1980¹³. The conclusion was that **7 % of the students who answered the survey were still running a company**, while **13 % of them had at some stage started their own company**. This proportion tended to rise with age. **In the age group 29 years or older it rose to 19 %**. Over the years, former YE students have, through their own companies, employed 16.000 people.

Most of the students (87 %) believed that by participating in the programme they had increased their knowledge of how to run a business and increased their ability to solve problems. They also mentioned that they had increased their personal self-confidence and their ability to work with others.

Similar results were obtained from a subsequent survey conducted by **Young Enterprise Norway**¹⁴. 9.7% of respondents who took part in the programme had established their own company after finishing upper secondary school, and **20.5% of the respondents between the age of 25 and 34 had established their own company**. The comparable rate at national level in Norway for 25 to 34 year olds was calculated at 4.5%¹⁵.

The Norwegian survey shows that 30% of those establishing their own company after finishing upper secondary school are women, and that 50% of business leaders are women. In Norway, women account for 19% of the total share of owners, 11.3% of board chairmen and 16.5% of company directors. This shows that mini-company programmes may also have an influence in increasing the share of women in top management. It seems that the use of these programmes positively affects equal opportunities between the sexes when it comes to achieving leading positions in companies.

¹³ *Ung Företagsamhet*, "What has happened afterwards?". 2002, CMA - Centre Market Analysis AB.

¹⁴ "What happened later?". 2003, M. Luktavslimo.

¹⁵ Kolvereid and Alsos, numbers from 1997.

The impact of these activities is confirmed by a more recent survey (published in 2005), quantifying at 26,6% the start-up rate for alumni of the age group of 29 years and older¹⁶. In total, 16,6% of all respondents between those participating to the mini-company programme have established one or more businesses (against 9,7% in the previous survey).

In **Belgium**, the results of a survey conducted in the Flemish Community¹⁷ on students having participated in a mini-company in the last three years revealed that 9 out of 10 youngsters have a very positive attitude to the business world, and 1 out of 5 stated that they would like to start their own enterprise within the next five years.

In **Germany** the results of an internal evaluation among the participants of JUNIOR in the school-year 2003/04 show that more than 80 % of them believe they have improved their understanding of economic and entrepreneurial issues, and that 1 out of 3 could imagine to start his/her own business.

JADE – the European Confederation of Junior Enterprises – carried out a pilot survey¹⁸ on the evolution of entrepreneurial spirit and self-confidence in those taking part in Junior Enterprises in higher education. The conclusions of the survey show that 80% of the interviewees demonstrate the ability to believe in themselves, 98% to engage in change, and 79% to develop creativity. In that regard, participants appear to have fully acquired the entrepreneurial qualities that fit with the profile of entrepreneurial managers.

Junior Achievement –Young Enterprise Europe carried out a survey called “Enterprise 2010 - the Next Generation”¹⁹. The survey asks 10 000 secondary school students, both participants and non-participants in *JA-YE* programmes, about their attitudes towards entrepreneurship. The survey compares results across 26 countries, and is scheduled to be repeated every three years. Initial results show that 77% of students participating to entrepreneurship programmes may consider self-employment as a future career option, and that young people who have not received entrepreneurship training are far more reluctant to consider self-employment than participants in *JA-YE* programmes.

¹⁶ M. Haugum, Ungdomsbedrifter og entreprenørskap 2005. Nord-Trøndelagsforskning, Steinkjer.

¹⁷ VLAJO, 2001.

¹⁸ Professor Renaud Redien-Collot, Advancia Paris and Mojca Jesenovec, Senior Project Manager, JADE www.jadenet.org

¹⁹ Final results available from October 2005 at: www.ja-ye.org

5. Success stories from students

➤ *Miera – Banana holders (Belgium)*

In Belgium, at the Vti Mariendaal Instituut, Diest a group of six students, all of them masters in being absent without permission, started the mini-company ‘Miera’ under the supervision of their teacher. The group became highly motivated and even invested their free time in the enterprise and the production of their products, banana holders.

Before they started with the enterprise they had no confidence and self-respect and considered themselves as marginal. Due to the experience with the young enterprise they started to discover their own skills and talents and regained their confidence and self-respect. In addition, the relationship with their teacher changed positively from teacher to counsellor/advisor. Two of the group started their own very successful enterprise (roof constructions D’Hondt).

➤ *ALCA Bohne GesmbH - Coffee and Tea (Austria)*

In Austria “ALCA Bohne GesmbH” is a practice firm trading in coffee and tea, founded in 1993 and located in a College for Business Administration in the region of Salzburg (Neumarkt am Wallersee). The age of the students is 17 – 18; practice firm work is in the fourth year of this 5-year professional business education.

In the previous school years students are trained in several relevant business subjects to meet the challenges of the practice firm work. ALCA Bohne shows an optimal performance. It is a reliable partner on the national practice firm market with about 950 competitors, a standard within the practice firm business competition in Austria. This practice firm - students and teacher - provides a long lasting and quality educational work. Even though the company staff (students) changes every school year, the company observes its own high standard, showing that programmes like student companies have an impact on the education quality itself. ALCA Bohne works with two real partner firms that support the student company through all the years and profit themselves by the students’ competences.

➤ *S4S - “The Spielmaschine” (Germany)*

In Germany, the JUNIOR-company S4S - Students for Students - was founded in October 2002. The product of the company was “the Spielmaschine” (games machine), a collection of 166 games for group meetings, seminars and birthday parties. Each game is categorised, rated according to specific criteria and equipped with multiplexed information. It was developed by the students themselves and completed in February 2003. The company managed to sell over 580 copies of the product, had a turnover of almost 5000 Euros and realised a profit of almost 2000 Euros, which represents an increase in the share value of some 256%. As in every JUNIOR-company, the students divided their work up into four departments: Administration, Marketing, Production and Finance.

The Marketing Department did a survey at the beginning of the project and were responsible for the Press and Public Relations, which were very successful - with TV reports, radio reports and many newspaper articles. The Marketing Department also sorted out different ways of selling the product, such as fairs, cooperation with another JUNIOR-company and using the Web. The Production Department was not only responsible for producing the *Spielmaschine*, but also had to sort out the most cost-effective way of printing the product.

All the students stressed the benefit of their experiences: getting a realistic impression of the world of work, becoming familiar with economic topics, improving their personal skills and building capacities in working with others as a team. Some of the students continued the activity after the JUNIOR-Company had to be liquidated.

➤ ***R@ - Computer mice (Estonia)***

In Estonia, in 2003/2004 the student company R@ was organised in an upper secondary school of a small village in Estonia. The student company worked as an extra-curricular activity.

The product of the student company was a computer mouse covered with fabric and having the appearance of a toy. As a result of a good selling strategy the student company's product became quite well-known and popular in Estonia and there were articles about the company in newspapers.

By now some members have graduated from secondary school and they are all studying in higher education institutions. They plan to create their own company.

This case is extremely important in Estonia, as in small villages in southern Estonia the unemployment rate is high and entrepreneurial spirit is not widespread. It is hard to find even local business consultants for these students. Everyone from this group claims that they have achieved a new thinking pattern – they see entrepreneurship as an important option in their lives. They are also willing to promote student companies as an important learning tool. After their success and its reflection in media, student companies have become quite popular among students and also among parents.

➤ ***“School Days” – School yearbook (Ireland)***

In Ireland, “School Days” is an example of a real mini-company set up by 16 students at an all-girls secondary school in Dublin as part of the Transition Year “Get up and Go” Mini- Company Programme”.

Recently, the final year students at the school had requested a yearbook for their final year. They asked the Transition Year students to produce one for them as part of the Mini-Company Programme. After a few meetings and a lot of market research, it was decided that this was a good idea and was feasible. The objectives of this Mini-Company were to produce a snapshot of the academic year 2003/2004 in the form of a 32-page, A4 size, full colour glossy yearbook.

Through advertising, sponsorship and sales of the product the students made a profit of €3,600. Students had an opportunity to gain first-hand experience of planning, setting up and running a business enterprise. Idea Generation and Business Planning were key components in the process enabling students to identify possible first steps needed in initiating and developing ideas for enterprise start-ups

➤ ***Presnatch - “Preventor” hooks (Sweden)***

In Sweden, the business mission of the mini-company “Presnatch” is based on offering a solution to the problem of guests being robbed of their bags/handbags in public places, such as cafés, restaurants and hotels, thus creating safety and convenience for the guests. “Presnatch” produced an innovative hook that prevents handbag theft in restaurants and bars. The company cooperated closely with Sweden’s National Police Force. The company develops, designs, markets and sells the “Preventor”. The product is placed under the table by each chair in a café, restaurant and/or hotel. The guests can then hang their bags on the hook. Presnatch’s product means that the visiting guests do not have to keep their bags on their laps, which increases comfort and convenience.

To secure the ownership of the product design, students applied for exclusive rights for the “Preventor” at the Swedish Patent and Registration Office.

Presnatch operates on a constantly growing market. The company’s product is unique at this moment in Sweden. Subsequently, the company’s goal is to grow rapidly before competitors enter. As future potential on the market was very high, students decided to continue their business activity during their university studies.

➤ ***Dogbag - Environmentally friendly dog bags (Norway)***

Five girls in upper secondary school formed a company called *Dogbag* whose aim was to create an environmentally friendly dog bag. Traditional dog bags have the drawback that they enclose an organic material, but the bag itself does not decompose, thus creating an environmental pollutant. They investigated and found a plastic material which is environmentally friendly in that it decomposes after about four days.

After securing a loan for the initial investment, a local industry was contacted and they produced 1000 rolls of these bags. The bags were offered for sale at one of the big supermarket stores within the district. The grocery chain thought the idea so interesting that they signed a contract with the pupil company allowing the supermarket chain to be the sole distributor. They soon discovered that 1000 rolls were not enough and had to produce more.

6. Framework conditions, support and the role of public policies

6.1. Sources of funding, and support from the private sector

In most cases student company programmes are **driven by external organisations** (e.g. NGOs) rather than by the education system itself, although they may receive significant support from the public sector. For this reason, and because sometimes they take place outside the official school curriculum, these programmes generally suffer from **insufficient financial resources**.

Student company activities are very often based on **strong participation from the private sector**, taking the form of funding or of contributions in kind. Depending on the countries and specific programmes, in some cases the **financial resources** available are predominantly of a **public** nature (this is for instance the case in **Austria, France** and **Norway**); in other cases they are mostly provided by the **private** sector (for instance in the **Czech Republic, Latvia** the **Netherlands** and **Poland**). An overview of sources of funding shows a great variety of situations and different solutions as regards the origin of financial resources for this type of programmes. Most frequently, a large share (e.g. 80 % or more) of funding comes either from the public or from the private sector, while in only a few cases the financial participation appears to be more balanced between public and private sectors (e.g. in **Denmark, Ireland** and **Sweden**). This situation may suggest some difficulty in matching public and private funds.

As part of public funding, **resources from the EU** can play an important role in the development of these activities, namely through the **European Social Fund (ESF)** and programmes like “Leonardo da Vinci”. For instance, in **France**, support of the ESF is providing a valuable contribution to accelerating the adaptation of vocational education to the new economic and social context. Thanks to the financial contribution of the ESF, it is possible to provide systematic support for the creation of links between schools and enterprises and the development of entrepreneurship projects in France, including those based on student companies, in technical and professional schools at secondary level²⁰.

Also in **Greece**, under the Operational Programme for Education, one major project is to run virtual enterprises in upper secondary technical schools and initial vocational training institutions. The adopted concept of a virtual firm already takes into account the definition of a student company provided in this Report. Starting from the school year 2005/06, all technical schools will have the possibility to participate for a two-year period.

As regards the private sector, financial support comes mainly from individual **enterprises, foundations** and **business associations**. **Banks** have an important role in a number of countries. In some cases, the main source of funding is **participation fees** from schools and students.

However, besides financial support, **contributions in kind** from the business world are equally, or even more important. These take the form of providing expertise and knowledge for the organisation of programmes; direct participation through business advisors, consultants or tutors; providing specific training to teachers; giving free access to premises and offices; helping the organisation of events like trade-fairs, etc.

²⁰ Revision of ESF programmes for the period 2004-2006. AXE 3 – Mesure 4: Faciliter le passage de l'école au travail.

In particular, the greatest benefit to these programmes comes from having the possibility of using a pool of **business advisers** who contribute their expertise, raise the interest of students to the world of enterprise, and participate directly in the programme as specialists.

It should be stressed that students having participated in mini-company programmes can be a unique **source of recruitment** for companies, as they have gained direct experience of enterprise and a set of skills that may be extremely useful within a dynamic organisation. This is often an important argument for businesses to become involved in such programmes.

- In **Germany**, the *JUNIOR* programme is sponsored by the *Gothaer* Insurance Company since 1997. Insurance itself is an important issue for participating students and their companies. *Gothaer* provides a commercial third party liability insurance for each mini-company as well as a product liability and accident insurance. This is additional to the usual insurance in schools. With these procedures *JUNIOR* intends to prevent the mini-companies from bearing unnecessary risks. In addition, *Gothaer* provides experts as consultants for seminars and examiners for the mini-company competitions, and assistance vis-à-vis the public and the media.
- In **Spain**, a banking company, *CAJASTUR*, plays a very important role in the *Empresa Joven Europea (EJE)* programme. The bank offers interest-free loans to student mini-companies as well as the opportunity for companies to open bank accounts and substantial discounts in banking fees and charges. The mini-companies arrange meetings with the director of the local branch in order to apply for the loan. They are asked to provide a business plan that must be thoroughly explained during the meeting.
- In **Sweden**, *Young Enterprise* has designed a model for co-operation between its financiers and partners. All the regional *Young Enterprise* branches in Sweden work according to this model. The aim is to make clear what the financiers get when they support *Young Enterprise*. The model is divided into Gold, Silver and Bronze partner, and benefits for sponsors go from a big logo on all *Young Enterprise* national presentation/information materials to the possibility for the partner to use the *Young Enterprise* logo in their own marketing.

6.2. Framework conditions and support from the public sector

Integration in the curriculum

Student company activities can be developed either within the school programme or as an extra-curricular activity. While in some countries both solutions are used, in others these programmes take place mainly within the school programme (like in the **Czech Republic, Finland, Ireland, Austria** and **Norway**) or mainly outside of it (like in **Belgium**²¹, **Estonia, Germany** and **Sweden**). Also, mini-companies can be run during normal school hours, or instead as after-school or out-of-school activities, when students carry out their enterprise project after the set lessons. While in most cases these two approaches co-exist, in some countries like **Belgium** (French Community), **Estonia**, and **Luxembourg** student company programmes take place mostly out of the normal school hours. When activities are completely extracurricular, one main disadvantage is that teachers have to invest some extra time for the programme and may not always get rewarded for the additional work.

²¹ French Community

Although student company programmes are in many, maybe even in most, cases developed within the school curriculum, in general they are not sufficiently **recognised** or **promoted** by the educational authorities and have **difficulty in integrating** into the official courses. Practical problems in implementing these activities are linked with the requirements to meet curriculum goals in each subject, curriculum overload and not enough hours to develop subject content, difficulties in adapting a cross-curricular approach in certain programmes and, lastly, lack of motivation among the teaching staff.

While a certain lack of flexibility may cause problems in specific cases, it is generally felt that in all countries **schools enjoy a sufficient degree of autonomy** that allows them to implement student company programmes, either as a curricular or as an extra-curricular activity. A major obstacle is the **reluctance of schools and teachers** to become involved when programmes are not backed up, recommended or recognised by the educational authorities.

The official inclusion of student company programmes as an **option in the established curricula** at national or regional level positively affects their capacity for penetration and their success, for instance by raising the motivation of teachers and by making a sufficient number of teaching hours available. However, a certain amount of **extra hours** and out-of-school work by students is often needed, in particular when managing mini-companies dealing with real goods or services.

Formal recognition of these programmes within the national curriculum is more likely to be found in secondary **vocational** education, where it more frequently concerns virtual or practice firms than real companies (this is the case, for instance, in **Austria, Czech Republic and Finland**). In a smaller number of cases, student company programmes are recognised or recommended within the national curriculum for comprehensive secondary education (for instance in **Ireland, Latvia and Norway**).

- In **Ireland**, Enterprise Education has been included in the curriculum of Senior Cycle Programmes including Transition Year, Leaving Certificate Vocational Programme and the Leaving Certificate Applied. Each of these programmes may have mini-companies as part of the curriculum.
- In **Latvia**, under the “Entrepreneurship” section of the “Basics of Business” and “Commercial Sciences” courses, students are required to learn how to draft a business plan, and they may do so through working at their mini-company.
- In **Norway**, pupil companies and entrepreneurship are included in the curriculum for practical project work as an optional subject at the lower secondary level (stages 8-10). It has a total of at least 228 hours over 3 years. Pupils may choose between this and a second foreign language. From 2006, when a second foreign language becomes obligatory, practical project work will be offered as a separate curriculum which pupils may choose.

At regional level, examples can be found in **Germany**, where in the Federal State of Baden-Württemberg the *JUNIOR* programme is accepted as a project in classes 11-13, and in the Federal State of Bavaria starting from 2005/06 secondary schools students of 10th level are able to choose “setting up a mini-company” as an optional subject. Also in **Spain**, in the Principality of Asturias the programme *Empresa Joven Europea* has been included in the regional curriculum for lower secondary education.

In this context, experts agree that - while entrepreneurship education as a general objective should be explicitly included in the established curriculum - student company activities should be **an option in that curricular framework**. The implementation of programmes will benefit from a legal basis, while different ways should be open to schools, leaving them free to decide whether or not to integrate these activities into their programme. Student company activities should therefore not be imposed, but clearly recommended. Their take-up should be a prominent option in the official curriculum.

Training and support for teachers

A major obstacle to a wider dissemination of student company activities is the **lack of relevant skills** (and, consequently, of motivation) of teachers about how to introduce entrepreneurship and work on enterprise projects in the classroom. These activities require not only a special knowledge, but also a change in teaching methodologies, as the role of teacher moves rather to that of a facilitator. Teachers need to be carefully selected and inducted if they are to become involved in developing mini-companies at school. Induction should include training on active teaching and learning methodologies, with a focus on group work.

A limit on financial and personnel resources in schools, especially when student company programmes are not a recognised option in the curriculum, means that those teachers who need training and support for teaching mini-companies may not always receive it.

While basic training is normally given to teachers by external organisations (such as NGOs) promoting these programmes, there is in most countries a **lack of systematic training** (both initial and in-service training) provided or supported by public authorities on how to implement entrepreneurship projects at school. Also, sometimes teachers are not encouraged by schools to make use of the training on offer.

In addition to this, **extra work** by teachers on student companies going beyond normal school hours is often neither recognised nor rewarded, thus further discouraging teachers from getting involved in these activities.

Public support to student company programmes

In most countries student company programmes receive a certain degree of **support** from public authorities (financial, or other). However, the level of this support is often considered as **not sufficient** for a wider expansion of these activities.

The most common form of support from public authorities is **financial**. As previously mentioned, in some countries financial resources for the organisation of these programmes come mainly from the public sector. However, public support is in many cases not systematic, but rather project-based or taking place only at a local level, thus not encouraging long-term planning and a further expansion of these programmes.

In a few countries, public authorities have established a structured **cooperation with NGOs** responsible for the organisation of student company programmes, by involving them in the development of a national strategy for entrepreneurship education (**Denmark, Norway**).

In **Norway**, *Young Enterprise Norway* is an important partner for the government in implementing many of the actions outlined in the government's *Strategy for Entrepreneurship Education*. 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.

Active **promotion** of these programmes by public authorities to teachers and schools can also play a very important role in their dissemination. In **Belgium**, the Ministry sends invitation letters to the heads of schools aiming to encourage their participation to the programme. In **Poland**, promotion of mini-company programmes is the responsibility of school superintendents. In general, this type of promotion is in most countries only occasional, or not enough intensive and systematic.

In **Finland**, financial support is given to schools in order to enable Practice Firms to function, and permanent visibility is ensured at the forums of the public sector (e.g. Board of Education web-pages). Also, the Board of Education sends a letter of encouragement and an information brochure to all schools in Finland inviting them to participate in the *Young Enterprise Company Programme*.

Lastly, and as previously highlighted, the official **recognition** of these activities is crucial to their success. While some form of recognition is ensured in a number of countries, it ranges from simple moral support (e.g. a declaration or statement from the Ministry) to more concrete and effective measures such as the explicit inclusion of student companies as a recommended option within the curricular framework.

In **Austria**, student company programmes are compulsory or recommended in the curriculum for all types of secondary technical and vocational schools, colleges and academic establishments. In this case, public authorities pay and reward teachers for running these activities and provide further training to them. Also, Service Centres for both existing programmes in Austria (*Practice Firms* and *Junior*) are financed by the public sector.

In some countries, the organisation of student company programmes faces major practical difficulties because of an unclear **legal** and **administrative framework** (for instance, as regards the taxation of mini-companies). This problem will be specifically addressed in § 6.3.

The Expert Group has been asked to identify a set of **indicators** that will measure to what extent public policy is supportive to the development of student company activities and, more generally, to entrepreneurship education based on practice learning. These indicators are proposed below as a possible tool for assessing public policies in this area.

Indicators of supportive policy making in this area:

- 1) An **overall strategy** for the promotion of entrepreneurship education in schools is developed by the government;
- 2) A specific **legal** or **administrative framework** or an **agreement** exists that recognise student companies as a pedagogical tool and ensure that their operations are not hindered;
- 3) Student company programmes are officially **recognised** or **recommended** by the educational authorities for application in comprehensive and in vocational secondary education, and guidelines for their implementation are provided;
- 4) **Schools** have **flexibility**, autonomy and freedom to set up student companies, either within the curriculum or as out-of-school activities, and are encouraged to take up this methodology;

- 5) Teachers are given **specific training** on how to introduce student company programmes into the class, as part of established initial or in-service training;
- 6) **Teachers** have the efforts and extra-work they devote to student company programmes recognised and rewarded;
- 7) **External organisations** (such as NGOs) promoting student company programmes are supported by public authorities, and/or have an agreement with them for the application of these programmes in schools.

6.3. Legal status and administration of student companies

In some countries, student company programmes face problems in terms of administration and taxation rules, because of the unclear legal status of mini-companies when they are performing real economic activities.

If they are not recognised by the financial authorities as an educational tool, and/or there are no specific rules applied for them, mini-companies may be asked to comply with the same administrative requirements as real companies

Problems are reported, for instance, to differing degrees in the **Czech Republic, Estonia, Latvia, Poland, Spain and Sweden.**

The lack of a specific legal or administrative framework, or of any agreement with the financial authorities, may have a major influence on the schools' involvement, and **hinder** the application of these programmes whenever the concerns of teachers and headmasters focus mainly on the economic and legal aspects of the activity.

The main practical problems can be summarised as follows:

- Compliance with bureaucratic and administrative procedures;
- Tax issues: payment of income tax and value added tax;
- Accounting problems;
- Liability and responsibility of mini-companies, participating students and teachers;
- Impossibility of cooperating with real enterprises, and of making banking transactions;
- Possible complaints from existing real businesses (competition issues).

There are cases of school directors refusing to allow student company activities in the school, fearing problems with public authorities checking for illegal activities. There have also been examples of local public authorities intervening in the activities of the student company, or at events like a trade fair, pointing out the need to observe the same rules and to complete the same documentation as required by law for officially registered commercial enterprises.

In such an unfavourable scenario, student companies cannot fully participate in economic life. This type of situation creates significant **barriers** to the development of mini-companies, and to the learning process of students, as in these methodologies learning is based on practical experience. Since they do not exist as legal entities, student companies cannot issue or receive invoices in the name of the mini-company. In these cases, usually the administrative and financial procedures are under the responsibility of the organisation conducting the programme, or students act as private persons. Also, students may have no opportunity to

cooperate legally with other commercial enterprises (for example, to sell their products to shops, to place bigger orders, to purchase cheaper stock materials in distribution centers and so on). Finally, mini-companies may not be allowed to open a bank account, thus having no possibility of making payments by bank transfer.

It should be clear to everybody what **the limits and the rights** of a student company are, then these programmes will be able to develop and grow. Legislation or administrative procedures should allow students to trade with real companies (for instance, to sell their products to shops), while having a lower level of risk than real companies. This way students can learn much more about acting in the real world of business.

While in some countries a specific regulatory framework for student companies has been established or agreements between promoting organisations and financial authorities are in place (e.g. **Belgium, Germany, Finland, the Netherlands and Norway**), in others no specific action was necessary because the existing framework does not hinder in any way the activity of student companies.

In **Belgium**, the VAT office has granted student companies an exemption from paying VAT by means of a formal administrative decision.

In **Finland**, the tax authorities have established rules for mini-companies taking part in the student company programme. To make sure there will be no difficulties with tax authorities, the procedure for reporting mini-company income in the tax declaration is explained. These rules also prevent the misuse of the mini-company status in case of “real” enterprise activities, and define the limits of the mini-company. The Student Company programme can be run in schools with real money, and when the turnover exceeds 3000 EUR the mini-company is advised to visit the local tax authorities. A VAT number is also available if student companies need one.

In **the Netherlands**, student companies are registered not with the Chamber of Commerce but at *Jong Ondernemen* (the organisation which promotes mini-companies) and there is an agreement with tax authorities that student companies pay taxes to *Jong Ondernemen* in order to avoid administrative problems (as student companies are only set up for one school year). Insurance is also in place to protect student companies against liability and to offer them legal aid.

In **Norway**, student companies do not pay taxes or VAT. They do not have to register with the central registration office for private companies, publish end-of-year reports etc. The tax regulations provide for the possibility of making a certain profit without having to pay any taxes.

In many cases, the student company programme is organised in cooperation with an institution that provides legal certainty for the student company and covers the insurance. The institution gives rules of procedure to the student company that need to be followed by the participants. This is the case for instance in **Germany** (e.g. the *Deutsche Kinder-und Jugendstiftung* and the programme “*Schüler unternehmen was!*”). Also in **Austria**, the legal status and administrative organisation of student companies is ensured by the national promoting organisations (*ACT, Junior*) on the basis of special agreements with national authorities, in order to prevent any legal problems.

Where necessary, **the existing framework should be improved**, as running a mini-enterprise can cause the students, teachers and schools taking part significant administrative and legal

problems. This could be done through concrete **agreements** between promoting organisations and the relevant authorities, by means of **specific regulations**, or more formally by recognising a type of **simulation entity** having all the attributes of normal companies but whose activity has an educational purpose.

However, in countries where there is a wide range of programmes, no rigid legal framework should be established that is valid for all, as this would assume a unification of the variety of programmes that would not be practical for the schools; at the moment they can choose the concepts that suit them best.

Specific arrangements for mini-companies would be desirable as regards **profit taxation** and **VAT**.

The **involvement and coordination of all different actors** are essential elements. Organisations promoting student companies, the Departments of Education, Finances and Industry, should agree on common principles and be aware of them.

Any legal framework, specific regulation or agreement could pursue the following **objectives**:

- Recognise student companies officially as a learning tool;
- Define the scope of a student company activity (taking into account differences between existing programmes);
- Give a right to issue invoices, make money transactions and open bank accounts under the name of a student company;
- Create legal certainty for the members of student companies when dealing with real companies or conducting project work for the private sector;
- Grant VAT exemptions and other tax advantages whenever earnings do not exceed a set amount (or increase this amount if necessary);
- Clearly define and separate liabilities (mini-companies, schools , teachers).

7. Conclusions

Entrepreneurship education should be seen in its **broadest sense**. This includes developing the qualities needed to be an enterprising person – such as ability to take initiative, to persevere in times of difficulty, to tackle problems, to find solutions, to be flexible and creative, etc. The **objectives** of any student company programme should include not just knowledge about the procedures for establishing businesses, but also the development of a wide range of cross-cutting skills and entrepreneurial attributes.

Student companies are **one of the best methods**, and certainly a **very effective instrument**, for fostering an entrepreneurial spirit at school. Offering these programmes means making students aware of the possibilities of entrepreneurship, and equipping them with a wide set of skills that will assist them not only in their future professional career, but also in their life as responsible and active members of society. An important effect of participation in student companies can be that of encouraging more young people to explore possible business opportunities and start up their own activity, or to opt for a dynamic start of their career in a small enterprise that wants to grow. This is a crucial factor, in the longer term, for growth and competitiveness in Europe.

These programmes can represent an important instrument within **regional development policies**. In fact, especially in less developed or more isolated regions, activities may have positive effects in increasing the number of school leavers to remain in the area by building direct links with the local community.

In order to allow as many students as possible to take part in these activities, it is essential that some **basic conditions** are in place (supportive curriculum, autonomy of schools, adequate funding, teachers' training and motivation).

Further promoting these programmes should not be the responsibility of the educational authorities alone: it will be possible only if **cooperation** is organized between different ministries, local authorities, business structures, non-governmental organisations, educational institutions.

The development of links with the local community and with the business world, and the active participation of **business partners** as mentors and advisers are key elements of successful student company programmes.

The **role of the educational authorities** is crucial in recognising formally the importance of these programmes and in making them an accepted and visible option in the framework curricula, within the broader objective of promoting entrepreneurship education.

It should be appreciated that most of the skills to be acquired through participation in a student company have a **cross-curricular dimension**. Therefore, working within a student company fulfils many of the goals and targets set for other subjects, and as such has an added value in relation to all subjects. This is an important argument in favour of promoting student companies and one that can be presented to sceptical administrations and principals.

Student companies can be seen as an important part of **lifelong learning**. Entrepreneurship education should take place in a lifelong learning context, and needs to be fostered at all levels from primary to post-graduate education.

7.1. Some main findings:

Methodology

Both approaches based on a **real** and on a **virtual** enterprise activity can be effectively used, provided that any virtual activity is not too abstract and carried out in isolation: interaction with other students, teachers and advisers, and contacts with the world outside the school, are essential components of student company programmes .

Most of the identified programmes have a duration of **one school year** (9 to 10 months): this seems to be the appropriate time for exploring the complex world of running a business. However, shorter programmes (3 to 5 months) are also used effectively.

Best practice in running student company programmes emphasises aspects such as team working and the freedom of students to develop their own ideas. Also, the development of links with the business world and the local community, and the availability of **mentors and advisers from businesses** are key elements of successful mini-company programmes. However, finding enough business volunteers is often seen as a major difficulty, especially in less developed or more isolated areas.

Dissemination

Students participating in mini-company programmes are still a **minority** (in most countries, during the last school year the rate of secondary school students involved was lower than 1%). However, **it is estimated that at least 200.000 secondary school students every year take part in these programmes in EU 25 and Norway**. Mini-company activities should not be imposed on all students but rather promoted and recommended as an option within the broader framework of entrepreneurship education. Therefore a significant figure is the **number of schools** offering these programmes. Following **Ireland** and **UK**, (where it is estimated that between 40 and 50% of all secondary schools participate), the best performers are countries where around 30% of secondary schools offer mini-company programmes. In all the other countries surveyed, the rate of participation of secondary schools is estimated at between 3% and 15%. The number of participating schools should be increased.

The limited information available on participation by **gender** shows a good balance between males and females, with female participants even being in the majority in some programmes.

These programmes can be applied at **all levels of education** (including primary and higher education) and in **every type of school**: in comprehensive secondary education as well as in vocational training or in business and commercial schools. However, in almost all countries the large majority of students participate in these activities during their **upper secondary** education. Student company programmes are implemented both as part of the school curriculum and during **normal school hours**, and as **after-school** and **out-of school** activities.

Evaluation and impact

Although basic **evaluation tools** such as gathering feedback from students and teachers (through self-evaluation, reports, reviews of performance by teachers, etc.) are generally used in most programmes, more sophisticated techniques (e.g. independent evaluation, examination at the end of the programme, etc.) are not yet widespread. There is a need to further develop the capacity of schools and mini-company providers to review and **evaluate** programmes they engage in. Effective evaluation will enable to highlight successes and to eliminate weaknesses.

Not enough research has been developed so far in Europe on the impact that participation in mini-company programmes has had on the future career of students. However, the limited

evidence available **supports the effectiveness** of these programmes in tangibly promoting the entrepreneurial spirit of young people. Also, these programmes seem to have a positive influence on **equal opportunities** between sexes.

Integration in the curriculum, and application at school level

There are only a few countries where student company programmes are officially recognised or recommended as an option within **national curricula**, and this tends to be the case more frequently in vocational education than in comprehensive secondary education.

It is generally felt that, in all countries, **schools enjoy a sufficient degree of autonomy and freedom** allowing them to implement mini-company programmes, either as a curricular or as an extra-curricular activity. Obstacles lie with the **reluctance of schools and teachers** to become involved when programmes are not backed up, recognized or recommended by the educational authorities.

Although student company activities are in many cases offered by schools within their programme, they generally suffer from **insufficient recognition** and from **difficulties of integration** into the official courses. **Practical problems** with implementing these activities are linked with the requirements to meet curriculum goals in each subject, insufficient hours to develop subject contents, difficulties of adapting a cross-curricular approach in certain programmes, lack of motivation and awareness of the educational value of these activities among the teaching staff.

The official inclusion of student company activities as an **option in framework curricula** established at national or regional level has a positive effect on their dissemination and their success, for instance by raising the motivation of teachers.

These activities require from teachers not only special knowledge, but also a change in teaching methodologies. Also, while knowledge or experience of business can be found frequently enough among teachers within professional education, this is not the case in comprehensive secondary education. Although basic training for teachers is normally offered by external organisations promoting these programmes, there is in most countries a **lack of systematic training** (both in-service and further training) offered or supported by public authorities on how to implement entrepreneurship projects at school, or in some cases teachers are not encouraged by schools to make use of the training on offer.

A certain amount of **extra time** and out-of-school **work** is often needed, in particular for mini-companies dealing with real products or services. Additional work of teachers beyond normal school hours is in many cases neither recognised nor rewarded, thus discouraging teachers from getting involved in these activities.

Funding and measures of support

In most cases student company programmes are **driven and organised by external actors** (e.g. NGOs) rather than by the education system itself, although they may receive significant support from the public sector. For the above reason, and because sometimes they take place outside the official school curriculum, these programmes generally suffer from **insufficient financial resources**.

Activities are based on **strong involvement of the private sector**, taking the form of funding or contributions in kind. Depending on countries and programmes, in some cases the

financial resources available are mostly of a public nature, in other cases they mostly come from the private sector (enterprises, business associations, foundations, banks).

In most countries student company programmes receive a degree of **support from public authorities** (financial or other). However, the level of this support is often perceived as not sufficient for a broader dissemination of these methodologies. Public support takes the form of **funding**, active **promotion** to teachers and schools, official **recognition**, inclusion as a recommended option in **framework curricula**, **cooperation** with promoting organisations, and removal of administrative **barriers** (where necessary).

Financial support from public authorities is in some cases granted on a project basis and limited in time; therefore the sustainability of activities is not ensured.

In some countries, the organisation of student company programmes faces major practical difficulties because of an unclear **legal** and **administrative framework** (for instance, as regards aspects such as the taxation of mini-companies, or the possibility of dealing with real companies). In other countries, a specific **regulatory framework** for student companies has been established, or **agreements** between promoting organisations and financial authorities are in place.

7.2. Future perspectives

These programmes are having a growing success in Europe, but **they are not yet generally available to students**. Only a minority of schools are offering them: in most EU countries, less than 15% of secondary schools offer programmes based on the student company methodology.

While not disregarding the effectiveness of other pedagogical tools, it can be affirmed that **these programmes are an important option within any strategy for stimulating entrepreneurial attitudes and skills**, as they are based on learning through practice.

Anyone observing a student company at work, or displaying their products, will be impressed by the enthusiasm, innovation, creativity, self-confidence and communication skills, among many other attributes, that these programmes help young people to unlock. These developed attitudes and achievements are consistent with those that should be the **objectives** of any educational path, particularly at secondary level.

The **potential impact** of these programmes – if widely applied - in terms of awareness of entrepreneurship as a viable option, of practical experience of what it means to exploit a business idea and to be an entrepreneur, can be huge in our society, where the entrepreneurial drive is commonly perceived as not being strong enough.

At the moment, the **main obstacles** to an increased application of these programmes are: insufficient recognition, absence of a visible role within curricula, lack of motivation of teachers and of specific training for them, not enough promotion from the public authorities to schools, not enough financial resources to ensure long-term planning and sustainability. Many of the problems and obstacles that these programmes are facing (fragmentation, insufficient recognition, etc.) are in fact common to the development of entrepreneurship education in general.

Some promoting organisations, assisted by businesses, schools and in a number of cases by public authorities, are devoting a great effort to the dissemination of such programmes. **An increased effort is needed from all the actors concerned**, working in close cooperation, and

from the educational authorities in particular, if the objective of increasing the presence of these methodologies in secondary schools is to be reached.

Educational authorities have in fact an essential role in recognising the benefits of these programmes in terms of acquiring the cross-curricular competences and skills that are necessary for the personal development of young people, for improving their performances in other subjects as well, for becoming active, responsible and successful members of society and, for some of them, in order one day to become dynamic and creative managers and entrepreneurs.

As it is recognised that **entrepreneurship** should be considered as a basic skill to be acquired throughout compulsory and post-compulsory education, and as an objective of learning to be included within framework curricula at all levels, educational authorities are encouraged to acknowledge methodologies using student companies and learning through project work as a **visible option within curricula**, in the broader context of entrepreneurship education. Moreover, they are invited to **promote** this concept to those schools, heads of schools and teachers who have not heard about such programmes, or do not feel sufficiently motivated or encouraged to adopt them. In this respect, **disseminating experiences and examples of good practice** can be an effective instrument.

Other measures of support from public authorities (involving different departments) may also take the form of **funding**, more **cooperation** with promoting organisations and the removal of legal and administrative **barriers**.

8. Recommendations

Below, a set of specific **recommendations** is proposed - addressing all the actors concerned - on how to implement student company methodologies most effectively, increase their presence in the education systems and their take-up by schools and students.

Schools

- 1) Schools are invited to **take up** these programmes, as most of the skills to be acquired through participation in a student company have a **cross-curricular dimension**, including transversal and personal skills as well as basic business skills. Working within a student company fulfils many of the goals and targets set for other subjects, and as such has an added value in relation to all subjects.
- 2) **Teachers** should be encouraged by schools to make use of specific **training** on offer on how to implement student company projects.

Schools, promoting organisations and the educational authorities

- 1) **Programmes** based on the student company methodology should ensure team work, learning through practice, regular contact with a teacher or advisor, and interaction outside the school environment.
- 2) Efforts that **teachers** and **students** devote to student company programmes, sometimes beyond their normal working or study hours, should be recognised as an official school task, and teachers should be given incentives.
- 3) Clearer systems for reviewing and **evaluating** student company programmes need to be developed by educational authorities, promoting organisations and schools. These should make use of techniques for evaluating the skills acquired.
- 4) Providers of programmes and the educational authorities should set up clearer systems for **gathering data** about the participation of schools and students in these activities.

The business world

- 1) Business associations and companies are encouraged to **become involved in these programmes** as part of their Corporate Social Responsibility strategy. Their support could be financial or in kind (including providing advisers and mentors for mini-companies) and could be acknowledged and recognized by public authorities by means of incentives. **Benefits** for companies would include the possibility of hiring motivated young people with direct experience of enterprise, and with a set of skills related to creativity, entrepreneurship and innovation.
- 2) Further collaboration needs to be encouraged between **schools** and **local businesses**, as student company programmes should not be confined to school boundaries. **Business associations** are therefore invited to **raise the awareness of their members** about the opportunity to link with schools and with promoting organisations, and to participate in or contribute to the implementation of programmes.
- 3) The establishment of **School-Business-Community links** is a key element of successful programmes. A systematic procedure and a model for collaboration

“School & Enterprise” should be developed, on the initiative of public authorities, business associations and promoting organisations.

Public authorities (at national and regional level):

National and regional authorities are encouraged to:

- 1) Develop an **overall strategy** for entrepreneurship education in schools. In this strategy, student company programmes should be highlighted as one important tool.
- 2) Set up regular **cooperation** between different ministries, business associations, non-governmental organisations, educational institutions, municipalities, with the objective of further promoting activities based on the student company methodology.
- 3) Cooperate, in particular, with **promoting organisations** (such as NGOs) that are widely disseminating these programmes, and involve them in national plans for entrepreneurship education.
- 4) Support schools and promoting organisations in implementing student company activities by making **financial resources** available, and/or contributions in kind.
- 5) More generally, ensure **long-term sustainability** of programmes, by means of funding, integration in framework curricula, cooperation with promoting organisations, encouraging participation from the business world.

Departments of Education:

- 1) Student company programmes should be **recognised** or **recommended** by the educational authorities as a visible option in the curriculum for comprehensive and vocational secondary education, within the broader objective of fostering entrepreneurial education;
- 2) Schools should be given sufficient **autonomy** to implement mini-company programmes, either as part of the curriculum or as an after-school or out-of-school activity.
- 3) Student companies should be **actively promoted** by educational authorities to schools, heads of school and teachers.
- 4) **Awareness** of these methodologies should be raised by **disseminating information** to the relevant parties, and encourage support at national, regional and local level. This will include actively promoting the existing concepts and highlighting good practice examples.
- 5) **The exchange of information** about the development of student company activities between European networks and national programmes, and between schools, should be encouraged in order to share methodological guidelines and practical hints.
- 6) **Teachers** must be provided with specific **training** on how to introduce student company programmes into the class, as part of established initial or in-service training. Such training should include active teaching and learning methodologies, with a special focus on group work and project work, the basics of running a business, how

to establish links with businesses and the community, and how to review and evaluate activities.

Departments of Economy and Finance

- 1) Where appropriate or relevant, **recognise** that student companies are a **pedagogical tool** and should not be subject to the same requirements and procedures as real companies;
- 2) Ensure that **legal and administrative barriers** to the setting up and implementation of mini-companies are removed;
- 3) Grant mini-companies **simplified rules as regards taxation**, including exemptions from paying VAT and income tax when earnings do not exceed a set amount, and as regards **insurance** against liability;
- 4) Give student companies the possibility to **deal with real businesses**, to offer their products to shops, to open a bank account.

The European Commission:

- 1) **Raise the awareness** of all relevant national departments (including those responsible for Education, Employment, Industry and Enterprise) of the importance of student company programmes for entrepreneurial education and for the acquisition of a set of life skills, so that these programmes can achieve more recognition at national level.
- 2) **Promote the exchange of knowledge and good practice** between different countries and between the actors involved, including business associations
- 3) **Disseminate information and promotional material** on these programmes, clearly showing that they contribute to reaching the objectives set by the EU for education, employment and growth.
- 4) **Support events**, at European or national level, that are showcases of the activity of student companies (such as trade fairs).
- 5) Promote the development of **European surveys** that evaluate the impact of such programmes.

All relevant actors:

- 1) Public authorities at all levels, business partners and schools are encouraged to increase the dissemination and take-up of student company activities so as to **allow all potentially interested students to have access** to these programmes.
- 2) Increase **research on the impact** that participation to these programmes has on students' life development and more generally on society. This would include not only skills acquired, but also career choices, college courses taken and number of business start-ups created by alumni. More evidence of the impact of these programmes would help to get entrepreneurship education on to the agenda of policy makers and educational authorities.

ANNEX: Inventory of student company programmes in secondary education identified according to the adopted definition (school year 2003/2004):

	<i>Name of programme</i>	<i>Name of promoting organisation</i>	<i>Level of applic.</i>	<i>Information</i>
Austria	Junior	Junior Österreich	National	www.junior.co.at
	Practice Firm	ACT	National	www.act.at
Belgium	Mini-entreprise	asbl Les Jeunes Entreprises	Regional	www.lesjeunesentreprises.be
	Mini-ondernemingen	Vlajo (Vlaamse Jonge Ondernemingen)	Regional	www.vlajo.be
	Practice Firm	COFEP	National	www.cofep.be
	Vaardig Ondernemen en Ondernemende Vaardigheden	Network For Training Entrepreneurship, Belgium	Regional	www.nfte.be
Czech Rep.	The Company Programme	Junior Achievement Czech Republic	National	www.jacr.cz
	Practice Firm	Centre of Practice Firms (CEFIF)	National	www.nuov.cz
Denmark	The Company Programme	Young Enterprise Denmark	National	www.ja-ye.dk
	European Business Games	European Schoolnet	National	www.business-games.dk
	SIMU Practice Firm	Simu-Center	National	www.simu.dk
Estonia	The Company Programme	Junior Achievement Estonia	National	www.ja.ee
Finland	The Company Programme	Young Enterprise Finland	National	www.nuoriyrittajyys.fi
	Practice Firm	Finnish Practice Enterprises Centre (FINPEC)	National	www.finpec.fi
France	Mini-entreprises	Fédération des associations Jeunes Entreprises FAJE, Académies d'Amiens, Lyon, Limoges, Clermont Ferrand et Versailles	Regional	www.jeunes-entreprises.org ; secretariat.faje@wanadoo.fr
	Création d'entreprise du secteur cafés – hôtels- restaurants	AGPCE	National	roger.benad@wanadoo.fr
	Entreprendre au Lycée	Académies Marseille et Nice, Guyane et Guadeloupe.	Regional	Entreprendre.lycee@free.fr ; ce.daet@ac-aix-marseille.fr ; ce.daet@ac-nice.fr
	Une entreprise dans votre lycée (La Basket-entreprise)	Académie de Nantes	Regional	dafpic.formation-initiale@ac-nantes.fr
	CCI des Jeunes	Académie de Montpellier	Regional	patrick.brisset@ac-montpellier.fr
	Une entreprise dans votre lycée	Académie de Rennes	Regional	ce.daet@ac-rennes.fr
	Créons Ensemble	Académie de Bordeaux	Regional	Jean-claude.weidmann@ac-bordeaux.fr

	Graine de Boîte	Académie d'Orleans-Tours	Regional	evelyne.binet@ac-orleans-tours.fr
	Challenge "Destination Entreprises"	Association Destination Entreprises, Académies de Limoges et Martinique	Regional	rossignolnadine@wanadoo.fr
	Demain mon Entreprise	CCI Versailles Académie de Versailles	Regional	rwolezyk@versailles.cci.fr
	Mini-entreprises dans les collèges francs comtois	MEDEF (Mouvement des entreprises de France), Académie de Besançon	Regional	formation@medef.fr nche-comte.com
	Mini-entreprises: Centre des Jeunes Dirigeants	Académie de Lille	Regional	od@odicee.com
	Concours «Jeunes créez en Auvergne»	Mission Régionale pour la création d'Entreprise (MRCE), Académie de Clermont Ferrand	Regional	mrce@ard-auvergne.com
	Concours « Entreprendre »	Centre de ressources pour la création d'activités innovantes (PROMOTECH CEI), Académie de Nancy-Metz	Regional	direction.promotech@wanadoo.fr
Germany	JUNIOR Junge Unternehmer initiieren-organisieren-realisisieren	JUNIOR-Office (Institut der deutschen Wirtschaft) (Junior Achievement Young Enterprise Germany)	National	www.juniorprojekt.de
	Achievers International	Achievers International	National	www.achieversinternational.org
	Schüler Unternehmen was!	Deutsche Kinder- und Jugendstiftung	National	www.dkjs.de/schuelerunternehmen.de
	business@school	Boston Consulting	National	www.business-at-school.de
	Jugend gründet	Bundesministerium für Bildung und Forschung, Steinbeis-Transferzentrum an der Hochschule Pforzheim	National	www.jugend-gruendet.de
	Start-Up Werkstatt	Deutscher Sparkassen- und Giroverband, Stern; McKinsey	National	www.startup-werkstatt.de
	Schul/Banker – Das Bankenplanspiel	Bundesverband deutscher Banken	National	www.schulbanker.de
	Practice Firm	Zentralstelle des Deutschen Übungsfirmenrings (ZÜF)	National	www.zuef.de
	Get up Wettbewerb "Schüler gründen Unternehmen"	Gesellschaft zur Förderung neuer Technologien e.V. Bildungswerk der Thüringer Wirtschaft e.V.	Regional (ended in 2004)	www.getup.org
	Jungunternehmerschule	Wirtschaftsförderungsgesellschaft Güstrow mbH, Landkreis Güstrow, Unternehmerverband Norddeutschland, Region Güstrow, Ostsee-Sparkasse Rostock	Regional	www.bilse.de/jus

	Ifex	Wirtschaftsministerium Baden-Württemberg	Regional	www.ifex.de
	TheoPrax	Fraunhofer-Institut für chemische Technologie	Regional	www.theo-prax.de
	Ideen machen Schule	Hans Lindner Institut	Regional	www.regensburg.de/wirtschaft/existenzgruender/existenzgruender-spiel
	SCHUB - Schulen machen Betrieb	Bildungswerk der Wirtschaft Mecklenburg-Vorpommern e.V.	Regional	www.bildungswerk-wirtschaft.de/swevne/schub
Hungary	The Company Programme	Junior Achievement Hungary	National	www.ejam.hu
	Practice Firm	National Institute of Vocational Education	National	http://www.gtbbp.hu/zuf/
Ireland ¹	“Get up and Go” Mini Company Programme	Transition Year Programme, Second Level Support Service	National	http://ty.slss.ie
	“Blast:Beat” Music Mini Company Programme	Treasure Island Records	National	www.treasureisland.ie
	Company Programme	Junior Achievement Ireland	National	www.juniorachievement.ie
	Student Enterprise Awards	City and County Enterprise Boards	National	www.studententerprise.ie
	Young Entrepreneurs Scheme	Young Entrepreneurs Scheme	National	
Italy	Impresa in azione	Junior Achievement Italia	National	www.junioritalia.org
	Imprese Formative Simulate	Centrale di Simulazione	National	www.simulimpresa.com
Latvia	Student Learning Company	Junior Achievement Latvija	National	www.jal.lv
Lithuania	The Company Programme	Junior Achievement Lithuania	National	www.lja.lt
	Virtual Firm	SimuLith Centre	National	http://sl.viko.lt/
Luxembourg	Mini-entreprises	Ministère de l’Education nationale	National	
Netherlands	Mini-Ondernemingen	Mini-Ondernemingen Nederland	National	www.jongondernemen.nl
	Practice Firm	SimNet	National	www.simnet.nl
Norway	Pupil companies Youth companies	Young Enterprise Norway	National	www.ue.no
	Simu-companies	SimuNor	National	www.simunor.no
Poland	Young Mini-Enterprise	Fundacja Młodzieżowej Przedsiębiorczości	National	www.junior.org.pl
	Managing Firm	Fundacja Młodzieżowej Przedsiębiorczości	National	www.junior.org.pl

	September Package	Fundacja Małych i Średnich Przedsiębiorstw KOMANDOR	National	www.fundacja.komandor.pl
	Simulation Firms	Polish Centre of Simulation Firms - CENSYM	National	www.cku.zgora.pl/censym/CSstart.html
	Establish and Run a Company	Centrum Edukacji Obywatelskiej	National	www.ceo.org.pl
	Economics - every day	Fundacja Młodzieżowej Przedsiębiorczości	Regional	www.junior.org.pl
	School Laboratory of Entrepreneurship	Teachers' Association of Entrepreneurship and Economic Education	Regional	www.nauczyciele.org
	Practical School of Entrepreneurship	Business Chamber of Podkarpacie	Regional	www.pig-chamber.com.pl
Romania	The Company Programme	Junior Achievement Romania.	National	www.jar.ro
	Practice Firm	ROCT (Romanian Coordination of Training firms)	National	http://www.roct.ro/ro/index.php
Slovakia	The Company Programme	Junior Achievement Slovakia	National	www.jasr.sk
	Practice Firm	SCCF - Slovak Center for Training Firms	National	http://www.siov.sk/siov/dokhtm/5sccf/sma_in2.htm ; http://www.siov.sk/
Spain	Practice Firm	Fundación INFORM	National	www.inform.es
	Empresa Solidaria	Junior Achievement Spain	National	www.jaes.es
	Empresa Joven Europea (EJE)	Valnalón Ciudad Tecnológica	Regional	www.valnalon.com
Sweden	Young Enterprise (Ung Företagsamhet)	Young Enterprise Sweden	National	www.ungforetagsamhet.se
	Practice Firm	Business Training Centre (BTC)	National	www.businesstrainincentre.nu
	Summerentrepreneur (Sommarlovsentreprenör)	Open for business in the county of Västernorrland	Regional	www.ofb.nu
U.K.	The Company Programme - Team Programme	Young Enterprise UK	National	www.young-enterprise.org.uk
	Practice Firm	EGNI (UK Central Office for Practice Companies and Virtual Firms)	National	http://egni.morganwg.ac.uk/
	EBP - Education Business Partnerships	NEBPN – The National Education Business Partnerships Network	Local	www.nebpn.org

¹ In Ireland, students involved in the Leaving Certificate Vocational Programme (<http://lcvp.slss.ie>) and the Leaving Certificate Applied (<http://lca.slss.ie>) are generally involved in a programme of enterprise studies which may involve mini companies.