

FORUM EUROPEEN DE L'ORIENTATION ACADEMIQUE
EUROPEAN FORUM FOR STUDENT GUIDANCE

UNIVERSITE D'ETE DE FEDORA
FEDORA SUMMER UNIVERSITY

DE L'ORIENTATION A L'EMPLOI
L'ETUDIANT EUROPEEN ET L'ENTREPREUNARIAT
(Les « bonnes pratiques » en Europe)

THROUGH GUIDANCE TO EMPLOYMENT
EUROPEAN STUDENTS AND ENTREPRENEURSHIP
(«Best practice» in Europe)

ORGANISATEURS / *Organised by*

FEDORA, Université PARIS VII, Université BORDEAUX I,
ASSOCIATION BERNARD GREGORY

Content

Programme	5
Opening session	13
Talks and panel	25
Workshops	71
Conclusion	89
List of participants	99

P R O G R A M M E

Monday 2 July

16 h **Registration**

17h30 - 19h **Welcome Reception**

Lundi 2 Juillet

16 h **Accueil des participants**

17h30 - 19h **Réception de bienvenue**

Tuesday 3 July

9 h **General Assembly for FEDORA members**

10 h **Chairman : Margaret Dane**
Opening session
Welcome to the Summer University
 -Comlavi Seddoh UNESCO
 -Margaret Dane, FEDORA President
 Heriot-Watt University, Edimburg
 Annick Wiener, Conférence des
 Présidents d'université
 Massimo Gaudina, European
 Commuission
 -**Martine Pagès**, FEDORA France
 Bordeaux1 University
 -**Geneviève Laviolette**, Career Service-
 Denis Diderot (Paris 7) University

10h 45 **Coffee Break**

11h **Hélène Orain**, Ministère de la formation
 professionnelle

12h 30 **Lunch**

14h **Massimo gaudina**, What are the opportunities
 in entrepreunarial careers in the EU

17h 15 **Reception (Cocktail offered by the
 President of Denis Diderot University)**

Mardi 3 Juillet

9 h **Assemblée Générale des membres de
 FEDORA**

10 h **Présidente de séance : Margaret Dane**
Séance d'ouverture
Bienvenue à l'Université d'été
 -Comlavi Seddoh UNESCO
 -Margaret Dane, FEDORA President
 Heriot-Watt University, Edimburg
 -**Annick Wiener**, Conférence des
 Présidents d'université
 -**Massimo Gaudina**, European
 Commuission
 -**Martine Pagès**, FEDORA France
 Bordeaux1 University
 -**Geneviève Laviolette**, Service Paris7-
 emploi, Université Denis Diderot (P7)

10h 45 **Pause Café**

11h **Hélène Orain**, Ministère de la formation
 professionnelle

12h 30 **Déjeuner**

14h **Massomo gaudina**, Possibilités de carrières
 entreprenariales dans l'Union Européenne

17h 15 **Réception (Cocktail offert par le Président
 de l'Université Denis Diderot)**

Wednesday 4 July		Mercredi 4 Juillet	
9h 15	Chairman Louis Devos, Université Libre de Bruxelles	9h 15	Président de séance Louis Devos, Université Libre de Bruxelles
9h 30	Workshops	9h 30	Ateliers
10h 45	Coffee Break	10h 45	Pause Café
11h	Conférence : Stephen Eames : The new entrepreneurs	11h	Conférence : Stephen Eames : Les nouveaux entrepreneurs
12h 30	Lunch	12h 30	Déjeuner
14h	Workshops	14h	Ateliers
16h 15	Coffee break	16h 15	Pause Café
16h30	Plenary session : Andrew Bottomley (PricewaterhouseCoopers) What about teaching entrepreneurship in higher education ?	16h 30	Session plénière : Andrew Bottomley (PricewaterhouseCoopers) Enseigner l'entrepreneuriat dans l'enseignement supérieur ?
17h30	Free evening	17h 30	Soirée libre

Thursday 5 July	Jeudi 5 Juillet
Visits to French institutions (It will be possible to choose two visits)	Visites de services français (Possibilité de choisir deux visites)
<p>Université Paris 4: La Sorbonne SCUIO / Bureau des stages et de l'insertion professionnelle Specialisms: Arts, Humanities, Modern languages, Communication, Oriental languages <i>Spécialités: Lettres et Sciences humaines, langues, langues orientales, communication</i></p> <p>Université Paris 5: René Descartes SCUIO / Musée d'histoire de la Médecine Specialisms: Medecine, Pharmacy, Social Sciences <i>Spécialités: Médecine, Pharmacie, Sciences Sociales</i></p> <p>Université Paris 6: Pierre et Marie Curie SCUIO / Mission Insertion Professionnelle / Bourse de l'emploi Bernard Gregory Specialisms: Sciences, Engineering school in University, Medecine <i>Spécialités: Sciences, Ecole d'ingénieur universitaire, Médecine</i></p> <p>Université Paris 7: Denis Diderot SCUIO / Etudiants Paris 7 emploi / Bourse de l'emploi Bernard Gregory Specialism: Sciences, Arts, Humanities, Social sciences, Medecine <i>Spécialités: Sciences Lettres et Sciences humaines, Sciences Sociales, Médecine</i></p> <p>Université Paris 9: Dauphine SCUIO / Bureau de l'emploi Specialisms: Economics, Business, Applied Mathematiques <i>Spécialités: sciences économiques, Gestion, commerce, Mathématiques appliquées</i></p> <p>« Sciences PO » Institut d'Etudes Politiques Specialisms : Marketing, Business, law, financial studies, journalism, european careers, sate administration, human ressources <i>Spécialités : Marketing, Gestion, droit, finances, journalisme, carrières européennes, administration d'état, Ressources humaines</i></p> <p>Business School: "Ecole Supérieure de Commerce de Paris" Specialisms: Business <i>Spécialités: Commerce, Affaires</i></p> <p>Association Bernard Gregory Entry to work of young PhDs <i>Insertoin professionnelle des jeunes docteurs</i></p>	
20h Dinner	20h Dîner

Friday 6 July	
9h 15	Chairman Joachim Klaus , Karlsruhe University
9h 30	Plenary session : Peter Hawkins , Liverpool University Entrepreneurial careers in modern society
10h 45	Coffee Break
11h	Panel discussion facilitated by Margaret Dane : Preparing students for entrepreneurship, what are the issues ?
12h 30	Lunch
14h	Final session : Jean Pierre Doucet , Université Paris 7 Conclusions and Workshop debriefing
15h	Conclusions : Margaret Dane Fedora President
16h	End of the summer university

Vendredi 6 Juillet	
9h 15	Président de séance Joachim Klaus , Karlsruhe University
9h30	Conférence : Peter Hawkins , Université de Liverpool Entrepreneuriat et société moderne
10h 45	Pause Café
11h	Table Ronde animée par Margaret Dane : Préparer l'étudiant à l'entrepreneuriat, quelles perspectives ?
12h 30	Déjeuner
14h	Séance de clôture : Jean Pierre Doucet , Paris 7 University Conclusions et compte rendu des ateliers
15h	Conclusions : Margaret Dane Présidente de Fedora
16h	Fin de l'université d'été

Opening Session

Comlavi Seddoh, UNESCO

Allow me to begin my presentation by thanking you for the invitation made to the Higher Education Division of UNESCO to take part in the opening session of the Summer Course 2001 organised by FEDORA.

We accepted this invitation to signal our support for the activities initiated by FEDORA an association, which will soon be officially a member of the Collective Consultation of non-governmental organisations from Higher Education.

Madame President, ladies and gentlemen allow me to share with you some ideas emerging from the World Conference on Higher Education.

Our world has arrived at the end of the 20th century and the onset of the 21st in a phase of its history essentially characterised by change. The character of this change is three-fold. It is interrupted. It is rapid with a tendency to gain speed. It concerns the totality of the planet and all spheres if actively engaged in by man and by society.

The world of work is changing. The intellectual element is becoming more and more important while manual work diminishes in significance.

Economic activity is changing in the same way notably its technical basis. The way it is organised, its structure and its requirements. It is more and more demanding in respect of the knowledge and skills needing to be acquired. New activities of a new kind appear are developing. Others are in decline and are fading gradually.

The change in economic activity and in society brings with it an evolution of needs in competencies for all categories of the working population. The need for professional and social mobility, the need for life-long education is becoming the norm in consequence. Throughout the world civil society is playing an important part while that of the state is in retreat. The revolution in information and in information technology is playing a crucial role in the acceleration of change affecting deeply the evolution of the worlds of work and education.

The development of education has experienced an extraordinary acceleration in the world particularly that of Higher Education. It plays an important role in the acceleration of the progress in knowledge, principally in the area of science and technology. We are in attendance at a veritable explosion in the domain of technical innovation.

Higher Education must from now on face the effects and the consequences of the internationalisation of the life of societies and the development of Information Technologies.

Work is demanding from now onwards higher qualifications than ever and workers who continue to perfect themselves ongoing to accept frequent redeployment. The new tendencies in the evolution of society bring out the relative importance of the responsibility of Higher Education. It follows from that the responsibility of career guidance which improves the opportunities for a student to gain access to a career occupies a pre-eminent place. It is becoming a more and more demanding field. Short-term contract work for graduates of Higher Education has been of working since the 1990's.

Throughout the world unemployment of university graduates exists even if the university is considered to be one of the best means of social development. The process which guarantees the transition from Higher Education to employment is becoming longer and more complex.

The mismatch between the employment marker and certain areas of study is becoming increasingly obvious. It is not unusual to see graduates stuck in employment which offers them little opportunity to apply their knowledge. The insecurity of employment is becoming the norm for young Higher

Education graduates, faced by this situation which consists of searching for a more advanced form of study so as to push away as far as possible the time for confronting the employment marker.

Do we help the overproduction of graduates given the employment marker? It is necessary to go in the direction of reduction of outputs from Higher Education? Some organisations have not hesitated to take the first steps in this direction especially in the sector of programmes for structural adjustment initiated principally in developing countries.

UNESCO for its part, the member states and the organisations who have participated in the global conference has promoted open access for all to Higher Education without discrimination and through merit. The norm for the development of Higher Education. We think moreover that the pessimism with the employment sector can be exaggerated.. For in analysing active populations it can be easily ascertained that it is young people equipped with a degree who have more opportunity while non-graduates are increasingly excluded from the employment marker. In many countries the links between Higher Education, the private sector and preparation for work in informal sectors has been insufficiently exploited.

The more Higher Education adapts itself in the future to be of service to a greater range of sectors in the economy the more will graduates take up opportunities in these sectors. For this to happen, it will be necessary to have quantitative information on the employment of graduates in these new sectors, especially those relating to the 'informal' sector.

Thus we are highlighting those close relations that must be in place between career guidance, the world of work, the organisation of higher education and for research and identifying context in training. Everywhere in the world of work an evermore important place is being given to the spirit of enterprise, to creativity and to preparation for the creation of enterprise as well as to self-employment of graduates. This follows the new trends in the employment market of which we may recall briefly some characteristics as they occur in industrialised countries?.

- The decline in the agricultural workforce as against the service sector where the work opportunities are concentrated
- Shrinkage in work opportunity in the public sector as against relative growth in the private sector
- Reduction in employment opportunities with large firms as against an expanding scenario in the informal sector
- Along with that, decline in the number of jobs requiring a lower level of education
- Computing and the I.T sector experiencing a period of growth

And future directions?

We must offer the young students a more flexible Higher Education that prioritises the capacity for innovation and creativity and the ability to take on uncertainty, the desire for life-long learning, the capacity for teamwork, that of accepting and taking on responsibilities, being open to being international, mastering new information and communication technologies. All these characteristics form the basis for the development of the spirit of entrepreneurship which constitutes the theme of the Summer University 2001 organised by FEDORA and for which I would like to offer, on behalf of UNESCO, my best wishes for great success.

Massimo Gaudina (European Commission)

Thank you to the organisers of this Summer University in Paris and FEDORA which has kindly invited the European Commission to attend this event. I apologise for Mr David Coyne, the new Director for Education at the European Commission who could not be present here today, but I give you his best wishes for a good and successful event.

I will speak in the afternoon on the main topics of this Summer University, about what is happening at European level in the fields of entrepreneurship and guidance and advice to students. I think these two items together are of great interest to you. I will also explain what the responsibilities are at a European level in these fields, in the fields of employment and education. As you know these are sectors where the national Member States and their governments keep a strong responsibility but at the same time, and especially since last year after the Lisbon summit between the Heads of State and government of the 15 Member States of the European Union these issues including entrepreneurship have achieved a European dimension through a series of activities, actions, networks and programmes that I will try to describe later. I just want to stress the fact that the European Commission gives a very high importance to this kind of event and to these issues. Entrepreneurship as we all know is one of the basic skills of the knowledge society of today and of tomorrow and it has been integrated gradually into many of the European policies and activities like the employment guidelines, the objectives of the educational systems, the youth policies and the policy for enterprises. So it is one of the typical horizontal issues that are of interest for many aspects of European life. At the same time guidance and advisory activities are becoming more and more complex because of the evolving environment, the diversification of demand for education and training but also the supply of education and training and of job opportunities across Europe.

This evolving environment is characterised by key words like life-long learning and e-learning, electronic learning that will be more and more important in the educational systems and the ways which education will be provided in the future. It is also characterised by the growing internationalisation and europeanisation of the curricula, of students profiles, of teachers careers and of university staff careers and all the other big processes that are presently going on at European level in the field of higher education such as the well known Bologna process for the establishment of the higher education area in Europe by 2010.

The training of advisers is definitely one of the very good examples of life-long learning because it is a retraining for professionals who are acting in a very rapidly changing job and profession and it is crucial because the world of education is changing and the labour market is changing very quickly. This is why the Commission is very interested in supporting this kind of event and this is why we consider that good orientation and good advice for young people and indeed for everyone in the context of life-long learning is so important for the European society because it improves the employability of people, it improves their entrepreneurship, and it improves their professional integration while at the same time making a contribution to the development of better citizens for the Europe of tomorrow.

For all these reasons I am very glad to be here today. I hope that the discussion will be very fruitful. I am very happy to note that one of the big political messages of the European Union has been accomplished here. We talk all the time about equal opportunities, especially between men and women, and I must say that at this table we are doing very well as I am in a strict minority, but that is what we all encourage so we are very happy about this.

Thank you very much and I will develop these aspects more fully in the afternoon.

Annick Wiener (Conférence des Présidents d'Université, France)

I am here to represent here Mr Bellocq, Vice President of the Conference of University Presidents in France and President of the University of Toulouse 1. I am a professor of Physics at Orsay where I also direct the international relations service. I am therefore up to date with the problems of student mobility in Europe and I must say that this initiative by FEDORA to devote this summer university to the problems of professional insertion and of entrepreneurship is a very deserving challenge. One must think of this problem on a European scale. One sees all the problems in a different way and, to confront the ways in

which they are dealt with in the various countries is extremely enriching because some countries are ahead in some areas while others are ahead elsewhere and it is really at the European level that these questions should be posed. It is a concern of the French universities and of all their presidents who meet several times a year at the Conference of University Presidents to make a huge effort to tackle the problems concerning the professionalisation of students. Therefore the University of Paris South organised two conferences this year: in December at the Sorbonne a conference on the professionalisation of the various disciplines and the other in April on lifelong learning. These two topics were a little interdependent and connected with the problems such as the ECTS posed at the European level.

I was very agreeably surprised by the topic of this summer university which goes beyond the simple framework of professional insertion: it is a question of raising students' awareness about this subject and of saying to them: " And why not create your own job? " It is this barbarian word " entrepreneurship ". In our university, Yves Morel who is contributing to this summer university, is the director of the business incubator of the University of Southern Paris. Sometimes researchers want to create their own company and the incubator supports them in this with practical assistance on the tactical level and the financial level. I think that this idea can also be applied at the training level and that it is on the above topics that you will work during the Summer University. I will not fail to say to my university and to Mr Bellocq that your work is well ahead, looking at the training level of students going beyond simple training in the drafting of the CV, though this is essential in presenting themselves, but also suggesting to students that they might even dare to create a company for themselves. It is a message which will be passed to the Conference of University Presidents. I wish you a very successful conference. Although we will all be French at the conference of the presidents, it is at the European level that we must address these problems.

Hélène Orain (Ministère de l'Enseignement Professionnel)

First of all I would like to send apologies on behalf of Mr Mélançon, Minister for Professional Education, who has been detained by his governmental commitments so he cannot be present among you this morning. I am charged with transmitting his best wishes and his encouragement for your work here.

He is extremely concerned with the question of guidance and particularly guidance within higher education. Indeed, for us, within the Ministry of Professional Education, guidance is part of our policy because it provides the interface between the economic world of employment on the one hand, and the labour market and systems of training on the other. To some extent guidance provides a bridge between these two universes, and I say two universes because the world of education and the world of enterprise have different rationales and purposes specific to their own context and this is what complicates your task. Therefore things are not simple. In addition they are complicated by the fact that, in higher education, at least in France, the matter of guidance has been neglected for a long time. Some subsidies were given to the centres within universities which wanted to do some work in this field but one cannot say that it was a real concern of the university management, nor of the political leadership. Extremely fortunately, the situation has now changed, and it is necessary to give an account of it.

I would like to tell you a bit about the way in which we conceive we it, in the Ministry for Professional education. We are charged, within the National Ministry of Education, with vocational training. Professional education affects all disciplines but the tradition in France is to consider professional and technological education separately from general education; traditionally, at university, professional education was seen as a side issue. It is important therefore to underline here the dynamic and remarkable changes since the Conference of the University Presidents some years ago, which wished to professionalise all the subject areas within higher education.

I will say a few words about our concept of guidance in higher education. I believe that for a very a long time, in France, it was believed that one could determine the aptitudes of students scientifically and, by doing this, identify those who would have a scientific bias and those who would concentrate on the arts. Thanks to tests, almost like the waving of a magic wand, one could find the right direction for each student.

It is easy see that life does not work like that. Nowadays there is a very different concept which is based on two assumptions: the freedom of choice for the students, and their personal development through their studies. This double requirement, to allow freedom of choice and the fulfilment of the student, does not mean that one should not be concerned about guidance, nor that one should lets the students manage with the current system. On the contrary, I believe it is necessary nowadays to facilitate the autonomous choices made by students, through a course of education helping them with these choices. It is also necessary to allow students to blossom while making their choices in complete freedom and autonomy. Furthermore, it is very important to have this concept well in mind, since as Mr Gaudina pointed out, our economic environment is nothing like it was, twenty or thirty years ago.

We now live of course in an economy based on innovation and knowledge. If you remember, at the Summit in Lisbon last year, the European Union decided to place the diffusion of the knowledge at the heart of the strategic resources for the economic development of the European member states. Therefore we, the actors of the education system, in the widest sense of the word, we have a little new responsibility. More precisely, our responsibility is now placed at the heart of the strategies for the development of our countries. It is a little difficult task, so we will have to pull our sleeves up!

I believe that every one of us, in our own level, can take part in this movement and this dynamic development. This is the precisely reason why I believe that this summer university, this European forum for exchanging ideas has great importance for the implementation of these policies. Why? From

the beginning it must be noted that, from one country to another, we do not have the same practices, or even the same ways of envisaging things. I therefore believe that the exchange of practice and ideas is what will allow us to advance in these various fields. It is useless to reinvent those things that function well in other countries and so we must promote best practice everywhere in Europe. This is a model of a Europe which is alive, under construction, and for that it is interesting. The second reason for which I personally find this summer university so interesting is the choice of the topic which has been proposed to us today, entrepreneurship. I asked myself the following question: " In the end what would our European economies be, economies based on knowledge and innovation, if it were not for entrepreneurs? ". It is clear that an economy whose development engine is innovation, has need of entrepreneurs and that today, they are one of the essential means of diffusing innovations in our economies. But, there again, the economic environment has changed somewhat as regards views about entrepreneurship. When I was a student, about fifteen years ago, one looked at business creation in a rather doubtful way. There was rather an image of the mad scientist who worked in his garage to invent a brilliant product. This idea of entrepreneurship is no longer valid. Today, being an entrepreneur is a real job. One does not suddenly discover something new that will be put miraculously on the market. It is not the case that, as if by magic, supply matches demand. We can see clearly that the work of the entrepreneur today is a practical science. I insist on this concept of practical science, which proceeds from a very high level of scientific and technical knowledge and also a very high level of knowledge and competence in the general disciplines, like management for example. Entrepreneurs today work at the interface between the world of scientific research and the economic world; consequently, it must proceed on both fronts. So I am saying that at the same time they must have very considerable scientific knowledge and also knowledge of marketing, finance and management sciences. These two strands of knowledge will enable them to contribute in such a way that the worlds of research and the economics meet. That requires a professionalisation of the role of the entrepreneur.

In a general sense, I think that this professionalisation is probably the most significant challenge facing higher education in France but also across Europe over the next ten or twenty years. From this point of view, France is in a particular situation; you surely know it, that during twenty last years our universities succeeded in opening access to higher education to very many students, that is " the massification " of the system. We say that we made a success of the bet of the massification. What remains to be improved its democratisation. If one examines the statistics of school failure, that at University, if one looks at what do our students do at university, how they orient themselves, which disciplines they choose, which professional projects they undertake, one can easily see the social inequalities. There are significant differences between those who come from the higher social categories which are helped from the moment they choose where to go, their subject area, their professional project and the many others who are disorientated vis-a-vis a higher education system which they often perceives as being overcomplicated and whose degree titles do not necessarily represent the contents of their studies, nor the types of employment available at the end of their training.

The challenge is to make a success of this democratisation. One cannot make the economy a reflection of the professionalisation of our university disciplines. It is true that for more than thirty years professionalisation has been a constant concern of the ministerial political authorities and (French) Conference of University Presidents. In a few words I recall the principal stages: in 1966, the creation of the University Institutes of Technology (IUT) (two years of professional studies after the Baccalaureat, leading to a professional diploma); in 1973, the creation of the Masters of Sciences and Technology (MST) and Masters of Management Science (MSG) and then, more recently, the creation of diplomas of the third cycle allowing immediate professional training, the Diplomas of Specialized Higher Education (DESS), Masters, Professional University Institutes (IUP) and even more recently, the introduction of the professional "Licences". I believe that the creation of all diplomas demonstrates the significant concern related to professionalisation.

But, but. the way in which we have conceived professionalisation up to the present has remained too confined within the disciplinary fields. We are able, in France, to train to a very high level, engineers

who have incredible qualifications and scientific knowledge in multiple scientific fields but who are not familiar enough with other disciplines: our engineers are up to date with the latest discoveries and research in their field but are quite incapable of knowing two or three simple rules of accountancy, management, financing of production, marketing etc. However, with regard to the creation of enterprises, this model is not sustainable any more because it is not enough to have knowledge and scientific competences of very high level to ensure that products meet the demands of the marketplace. All that is much more complicated in the ever-changing environment that we know today; one cannot confine oneself to this situation. In reality, the challenge of professionalisation is interdisciplinary and multidisciplinary; it will be necessary in one way or another to allow the specialists, professors, researchers, to discuss between them, to develop multi-disciplinary training which can meet the economic challenges of the future.

This professionalisation must allow sustainable employability. It is a case in reality, thanks to multidisciplinary, of promoting a widening of the field of knowledge of our students. It is what we in the Ministry call "sustainable professionalisation". The word has some importance because I believe it is necessary to include and understand this idea well: when one is at university, one must acquire knowledge related to the current search in a discipline (or in several disciplines). Obviously taking into account the speed at which knowledge is evolving today, in five to ten years this knowledge will no longer be valid. Therefore one needs students to be able progressively to develop their knowledge and competences, to adapt their own knowledge and to be agents of development in their own field of competence. It is here that the role of guidance is critical insofar as it is the interface between the economic world and the system of initial education / training. It will make it possible for the student to formulate his professional project from the point of view of durable professionalisation, which does not consist in specialising in a very particular field but on the contrary, but in widening the fields of competence. That is not to say that it is not necessary to specialise, of course, but rather that it is necessary to open up their fields of knowledge and competence. Behind this sustainable professionalisation, I think there is a double and very significant challenge which is that of the democratisation of higher education and that of meeting economic needs as expressed daily by companies to the Ministry.

Once again, well done for this initiative. Well done for having organised this forum, because I think that all these questions will be addressed. This forum will provide an opportunity to get to the bottom of the things and to exchange our various concepts and models of entrepreneurship and guidance in higher education. Can I say to you that the Minister will look at this work with great attention because that is how our educational policies are nourished and enriched through such initiatives. Thanks again.

Martine Pagès (FEDORA treasurer, Université de Bordeaux)

Why is FEDORA holding its sixth Summer University on the subject of entrepreneurship?

A new Executive Committee was elected last November in Karlsruhe, with a new President and a new team in charge. All the people in charge of the new team are present at the Summer University, so you will be able to meet them. Of the six summer universities which we have organized, three took place in France. France has been particularly active in this field and I want to thank my colleagues here. We have done a great deal of work in the French universities on student professional projects. From the first cycle, there is a focus on career orientation so that students who arrive at the university can bear this in mind in their choice of direction and the skills which they can acquire in the university. We also organise special "university-company" weeks, when forums are organized at the university, and the companies take part in various activities in the universities. A real change takes place: specific services in the universities, of the incubators and the services of valorization and technology transfer are created. Follow-up surveys of the students allow us to know exactly where our students end up. It seemed interesting to us to exchange experiences at a European level on all these practices and it is for that reason that we chose the topic of entrepreneurship, a topic which had already been chosen for a conference in November by our Ministry.

As an organiser of FEDORA, it seems to me that it is necessary that the people in charge of student guidance in our universities should start speaking in a more " European " way. I will try to facilitate this coordination a bit further. For that I will need the assistance of you all, because all alone, one can do nothing. Today, 70 people are registered at this summer university and all the European countries are represented. But it is also necessary to announce the presence of colleagues coming from countries which are not within the European Community: a colleague who has come from the USA and another from Morocco. These colleagues are interested in everything that is being done within the framework of European work. There are also representatives of countries which are not yet in the community (Switzerland, Turkey) but which are getting closer to this European Community. I find that this widening is interesting, and each summer university allows us to bring and exchange ideas and to learn much from each other.

I will now put on my cap as Treasurer of FEDORA. In Europe, financial transactions are complicated, especially when one is a Belgian European association (like FEDORA), when one tries to open an account with the Crédit Lyonnais and the procedures to obtain a cheque book take forever. The subscription to FEDORA is modest; 70 Euros is a relatively small sum. FEDORA working groups cover a range of different sectors in which each one of you can make your contribution. If you think that this association is significant, if you have not done so already, I would like you to join FEDORA and to encourage your colleagues to join too.

Margaret Dane (FEDORA President, Herriot Watt University)

Just before you go I would like to welcome you very much to this 6th FEDORA Summer University and to introduce myself to those who were not here earlier this morning. I am Margaret Dane, current FEDORA President. I am aware as Martine said that our French colleagues have made a very large contribution, because this is the 3rd Summer University that the French members have organised; one in Montpellier, one in Bordeaux and now this one in Paris. I hope that you will participate actively in this summer university both in the workshops and outside. You can make a lot of professional contacts but also personal contacts and new friends in this European family that FEDORA represents. The aim of FEDORA is to help all of us to do our jobs better back in our own universities. It is not just about travelling in Europe and having a nice time, although we hope that you will do that as well. The aim is to share professional practice and experience and to learn from the experience of others who are perhaps slightly further down the road in particular aspects of our work. I hope that you will all enjoy the rest of this Summer University. I would like to finish by saying thank you again to our organisers because I know how much extremely hard work they have done, to our speakers this morning including Mr Seddoh, who has now gone, to our speakers from French Universities Rectors organisation, from the European Commission, from the French Ministry of education and indeed to our own FEDORA colleagues for France and to this University Paris 7, and finally to thank you as participants, because without you there would be no Summer University.

Talks and panel

What are the opportunities in entrepreneurial careers in the EU?

Massimo Gaudina

Margaret.Dane (FEDORA President, Herriot watt University)

I would now like to invite Mr Gaudina from the European Commission to speak on the theme of enterprise from the perspective of the Commission. He kindly agreed to take the place of David Coyne and I would like to thank him for this and for the financial support which the Commission has agreed for this event.

Massimo Gaudina (European Commission)

I will try to expand a little on what I mentioned this morning, in particular on the responsibilities, main policies and initiatives at European level in the fields of employment and education in relation to the subject of this summer university which is entrepreneurship. I will also cover the other issue which we consider to be very important, even more important than in the past, which is guidance and counselling in the context of life-long learning. I apologise I was warned not very many days ago that I was to come here so I couldn't prepare any slides or any well structured speech but you will find, or you may have already found, some references to useful web pages in your bag some useful links about the European Commission projects and programmes which I will mention now.

So what are the responsibilities of the European community in the fields of entrepreneurship and in the field of guidance? As you know the treaty established in the European Community which is the juridical act of setting out the competencies of action of European institutions said that the community holds exclusive competencies in some sectors, such as agriculture, fisheries, transport, trade etc and a single currency which will come in very soon as you know at least for most of the EU countries, but in other sectors the community holds competencies only in respect to the principle of subsidiarity. That is, it takes action only and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States themselves and can therefore, by reason of the scale or effect of the proposed action, be better achieved by the community. However the treaty underlines that the community action shall aim to render the employment of workers easier, to increase their geographical and occupational mobility within the community, to facilitate the adaptation to industrial changes and changes in production systems in particular through vocational training and re-training to encourage the mobility of young people, teachers and volunteers. It is clear that in order to attain these objectives guidance and entrepreneurship are two of the central elements in all of these strategies.

In addition, it should be emphasised that the new open method of political co-ordination at European scale has been launched by the special meeting of the European Council held in Lisbon in March 2000 where the heads of state and government decided that the European Council should take a stronger role of co-ordination of action and policies of Member States and of the European institutions in the fields of employment, competitiveness, employability etc. The focus is on preparing for the transition to a knowledge-based society, investing in people and combating social exclusion. A meeting of the European Council in Spring every year defines some priority fields where a concerted action should be taken, always respecting the remit of national authorities, and ensure follow up. The issues that we discuss today have been and will be addressed in this context through the initiation of specific activities or as part of a wider strategy of co-ordination of member states. If we go a bit more into detail on employment policy, the community is given a new area of responsibility to complement the activities of member states involving the development of the co-ordinated strategy for employment which essentially consists of encouraging co-operation between member states on their employment policies, supporting and complementing their actions and in mainstreaming employment in all community policies. The strategy provides ongoing co-ordination of member states employment policies through the employment guidelines, which are grouped around the four common themes or pillars agreed by all the countries. These four pillars are the following; the first is employability, helping both unemployed people and those in work to develop the right skills; the second is entrepreneurship, which means making it easier to start and run a business and to employ people in it;

the third is adaptability, which is modernising skills and ways of working in a fast changing world and the fourth is equal opportunities, equal access to jobs for men and women, as I said this morning, aims to help to balance work and family life. These are the four pillars.

I said entrepreneurship is one of these four. In particular we had a discussion in the workshop about the possible definition of entrepreneurship, so I literally took the official journal of the European communities and I tell you what I find and what member states have agreed to define for the development of entrepreneurship. The development of new business in general and the contribution to the growth of small and medium sized enterprises in particular is essential for job creation and the expansion of training opportunities for young people. This process must be promoted by encouraging greater entrepreneurial awareness across society and in educational curricula by providing a clear, stable and predictable set of rules and regulations and by improving the conditions for the development of and access to risk capital markets. Member states will encourage the taking up of several entrepreneurial activities. I just mentioned one eg. promoting education for entrepreneurship and self-employment, targeted support service as well as training for entrepreneurs and would be entrepreneurs.

Each of the 15 European countries has presented its national plan for employment and they have presented their own actions, initiatives and policies to develop entrepreneurship. You will find on the web in one of the documents that are listed, the reference to the national action plans, so you can find a lot of examples of national policies in this field.

Concerning education and training, because we have been talking about employment up to now, here again we have a national responsibility for the organisation, the structure and the content of the curriculum, but we have an increasing European dimension and a European objective which is the quality of higher education. We have the European programmes like Leonardo, Socrates and Youth that you all know very well. There is a new initiative which has been agreed at the Lisbon Council which is called the Objectives Report on the objectives of education. It focuses on common concerns and priorities about education and training while respecting national diversity. Again we have a stronger focus on entrepreneurship in the set of objectives the member states have agreed as a priority for their national systems, for example the development of basic skills like numeracy, literacy, languages and IT skills. Access to education should be as wide as possible in terms of life-long learning and the quality of education at all levels. One of the objectives is the development of the spirit of enterprise, co-operation between education and training institutions, business enterprises, research institutions and major public sector partners to promote the widest possible interest in educational and training systems. Furthermore education and training should provide opportunities to acquire the skills needed to set up and run a business, such as taking risks. Developing the spirit of enterprise is important for the individual, the economy and society at large.

To conclude with the political context of this initiative, I also want to mention a very recent resolution adopted one month ago by the Youth Council who are the ministers for youth affairs. It is a resolution, which is called "From exclusion to empowerment, promoting young people's initiative, enterprise and creativity". In order to stress the idea of young people playing an active role in society and better promotion of young people's initiative, enterprise and creativity, this council and representatives of government adopted this resolution which contains a set of measures and actions which you will find on the web. This resolution invites member states and the commission: to encourage and make more visible the spirit of initiative, enterprise and creativity of young people; to improve young people's information on opportunities available and to provide support in starting and developing activities including social, cultural and business activities; to integrate this into practical, national level labour market policy measures in the youth sector; to encourage young people's initiative and creativity in combating racism, xenophobia and intolerance. Encouraging young people's initiative, enterprise and creativity also as a key driving force in the context of the strategy for creating more and better jobs in Europe. I want to emphasise the importance of non formal learning as a means of expressing and developing young people's initiative, enterprise and creativity and finally to clarify to what extent these are put to use as a source in projects conducted with the support of the EU structural funds.

I will now focus on the enterprise policy at European level and some concrete examples of projects in this field in the last four years. The Commission has given high priority to promoting SME's and fostering a more entrepreneurial Europe. The SME dimension is now an integral part of community policies. There was a recent action plan to promote entrepreneurship and competitiveness, in particular there was a task force called BEST, Business Environment Simplification Taskforce which met several times. There were several fora and studies which led to this action plan in '97 and to a series of recommendations given by the commission to member states and to the European Parliament. There were a lot of follow up measures to this action plan that you will find in the list of the web pages that have been provided.

The action plan included a series of action points, which concentrated on the following priority areas: education for an entrepreneurial society and training; access to finance for small enterprises at an earlier stage and finance for expanding and high tech firms; access to research and innovation, making European research and development more sensitive to SME requirements and better use of patents by SMEs, and other measures aimed at developing the spirit of enterprises and entrepreneurship in particular. In the context of the follow up of this BEST action plan, a conference was organised in Sophia Antipolis in Nice some months ago where a series of examples and good practices in the field of education and training for entrepreneurship have been presented. Three main principles arose from these discussions: an enterprise-driven education is needed, fostering a risk oriented mindset; comprehensive strategies have to be established involving every level of education from primary school to university and all the relevant players - teachers, enterprises, pupils and students; finally entrepreneurship must be considered as a basic skill to be sustained through life-long learning. In order to implement such principles some types of interventions were highlighted: first of all the development of entrepreneurship within the current education systems at an early age; secondly the strengthening of co-operation between education and training authorities, enterprises and business associations; thirdly, the training of trainers and notably teachers; fourthly the development of entrepreneurship within organisations, the so called intrapreneurship.

Concerning the examples and the good practices presented at this forum that were gathered at European level, I want to describe some of them just to give you an overview. Some of them have been supported only at local level, some others at national level and others through the European funds, in particular the structural funds. I would like to start with the category of examples, which were gathered under the heading "From School to University". What teaching and learning strategies, what actions exist to encourage the entrepreneurial spirit in young people? One example came from Denmark where the government in the context of a broader programme for enterprise education, launched the following initiative. It involved 43 schools at upper secondary level and one third of the students attended a course in business economics. The idea here was to involve the students in business games. About 900 pupils every year complete a project based on a fictitious business idea and by doing so they are in direct contact with an entrepreneurial way of thinking. Pupils are not encouraged to leave the school and enter directly into the business world but rather to move on into further education first. An external jury finally evaluates the best business ideas with the best ten participating in the national finals.

The Minister of Education in France and Directeur à Marseilles has launched the initiative called "Entreprendre au Lycee" which since 1991 has involved about 130 secondary schools and 1000 students in the south of France. The idea is to offer the students on a voluntary basis the possibility of creating a mini enterprise with the obligation to arrive at the actual production of goods or services for real customers by the end of the school year, so this is not a stimulation but a real business practice. The students have to find the business idea themselves and to develop it, the role of the teachers being to ensure a methodological framework for the activity. The new enterprise should be operational for just one year, the school year. From November until May in fact the main objective of this initiative is to develop the entrepreneurial abilities of the students and not to create new businesses. The students have to work at their projects outside the normal class hours. Enterprises in the region are associated with the project and act as tutors of many enterprises created. These experiences have proved successful for almost 10 years and it should be pointed out that the National Ministry of

Education has decided to launch a reform of the education system based on similar principles. My next example I will take from the city of Turku in Finland. It's a small business institute called "Entrepreneurship in Cyberspace", a distance-learning programme on entrepreneurship in the upper secondary school for adults. This was launched as a distance learning programme in entrepreneurship studies as part of a larger distance learning project.

The students are enrolled in one of the available upper secondary schools for adults. This programme provides a new flexible way of learning for people who are working at the same time. The main objective is to increase entrepreneurship and entrepreneurial skills in society. The primary target group of the course is entrepreneurs and personnel within SMEs. Secondly it is targeted at everyone interested in entrepreneurship. The reason for setting up the programme was to provide new skills and knowledge in a way that would be available to everyone irrespective of time and place, namely via distance education. The second main item in this context was the question "How can vocational training favour entrepreneurial initiative?" and again there were examples. I will just take one, the Marco Polo Project put in place by the Chamber of Commerce in Padua in Italy. In conjunction with the national, regional and local authorities they introduced two years ago a range of instruments involving over half the schools in the city and aimed at some 2200 students that were about to enter the labour market. The Marco Polo project targeted 26 secondary schools, around 100 teachers, more than 2000 students and 400 enterprises based on courses aimed at promoting an enterprise culture through business games and on work placements. As far as the students are concerned the project has also engaged the active support of many of the region's enterprises, making them more aware of advantages of encouraging effective training of this sort. It also included the diffusion of enterprise culture amongst schoolteachers through training and placement in companies. There were several other examples and as this seminar was quite recent, I am sure there will be a good and wide dissemination of the results.

There was also the workshop on new management practice and development of entrepreneurship. There were interesting examples from France Telecom and Siemens on how to develop entrepreneurship within their employees in the company. I also wanted to mention a European network called BENE, Business Education Network in Europe which is a European project aimed at supporting SMEs in the field of education and training by establishing a network, an interactive network of more than 100 educational organisations directly involved either in the teaching of entrepreneurship or in the training of entrepreneurs. The main purpose of this network is to create a framework within which educational practitioners would be able to identify and develop good practices which can be transferred across cultural and educational frontiers and which can help education and training providers from different fields to work together and improve their provision. The objectives of this network is to facilitate the exchange of information, to discuss methods and programmes, to prepare joint programmes and projects between the institutions and to collect and disseminate good practices examples across Europe, and finally to create a database of institutions and programmes accessible on the Internet where SMEs and individuals can find information on training courses on offer.

These activities come from the enterprise policy of the Director General for Enterprise within the European Commission but there are many other activities I have already mentioned, the structural funds that help in the different member states at different levels, to improve the structures and infrastructures of the countries. Each country is free to choose if they want to build new highways or to improve training or to build laboratories. Many countries have recently increased the level of investment through the structural funds in the human resources and also for business start-ups, for the incubators of enterprise, for venture capital and for projects aimed at bringing together education and research on the one hand and the world of business on the other hand. I should also mention the European programmes in the field of educational training, Leonardo da Vinci first of all because it is more linked to vocational training through placements and internships in enterprises but of course also the Socrates programme, which allows students to go abroad, as well as the Youth programme for youth exchanges and the European voluntary services. These programmes, even if not aimed directly at the development of the spirit of enterprise, make a very big contribution to this because they imply

risk taking, they develop the initiative of the individuals, a problem solving approach and self-confidence, another important element of entrepreneurship.

To go abroad is already an enterprise and even if this is not the reason why many people participate in Erasmus or Leonardo da Vinci, almost all of them come back with new skills and new self confidence and a new spirit of initiative which could also be linked to future activities in this field. Concerning Erasmus, I also want to mention that next year in the priorities for the so called Erasmus intensive programmes, one of the priorities will be given to projects which will present entrepreneurship in a multidisciplinary approach and this will be published very soon. It will identify for each of the Socrates actions, the sectors and the areas which will receive special attention. For the so called intensive programmes which are short term events organised by Universities, one of the priorities will be given to projects aimed at a multidisciplinary approach to entrepreneurship.

I would now like to focus on the issue of guidance and orientation which your major concern. In this field the European actions aim to support the establishment and modernisation of guidance services in member states in order to improve the employability and adaptability of European citizens but also to support the introduction of the European dimension into information on education, training and employment, especially with the aim of promoting mobility. They also aim to promote transnational co-operation with respect to reflection on guidance practices and methods. There are at least five or six specific programmes which are of interest for the experts and professionals in this field. First of all, the European Social Fund which is one of the structural funds, the key aim of which is to provide finance for implementing national action plans for employment. Activities which can be supported by the ESF in each country, include education and vocational training, apprenticeships, pre-training, employment aids and aids for self employment, development of new sources of employment, training of teachers and trainers, modernisation and improved efficiency of employment services, development of systems for anticipating changes in employment, new qualification needs, assistance in the provision of services to beneficiaries, innovative measures and pilot projects concerning labour markets, employment and vocational training. Even though the larger part of the European Social Fund is dedicated to initial and continuous training measures, a significant part of funding may be dedicated to the implementation of guidance services and activities. However as the management of the fund is largely decentralised, it is the members states, often at regional level, who decided on the types of intervention to which priority should be given. The second initiative is the EURES Network. EURES is a network of European public employment services, established in order to facilitate exchanges of information about employment opportunities between the 17 countries of the European Economic Area in order to support the free movement of workers. Partners in the service include public employment services, trade unions and employer organisations. The partnership is co-ordinated by the European Commission. This service is based on a network of 500 Euro-advisers, vocational counsellors and social partners, experts specialised in the employment market and occupations, located throughout the participating countries. The Network has at its disposal a database of job vacancies in Europe and a second database containing general information on living and working conditions in the EEA countries, in order to provide citizens with up-to-date information in their home countries before taking up or considering a job in another country. The Euro advisers also have the responsibility to assist employers who are willing to recruit workers from other countries. It should be emphasised that the initial mission of EURES focused specifically on provision of advice and guidance to workers and employers in cross border regions, but the recent development of the service on the Intranet has allowed a broader focus on mobility throughout Europe. I already mentioned the next call for proposals for the Socrates programmes in the context of entrepreneurship. I must emphasise that there will also be a priority for the field of guidance and orientation in the same call in two specific chapters. One is the school chapter of the programme COMENIUS, while the other one is the life-long learning chapter which is GRUNDTVIG. In these two programmes in the year 2002 special attention will be given to projects dealing with orientation and guidance and you will find more details very soon when the call will be published.

I also recall two networks that have implemented several projects with the European Commission in the field of guidance and counselling. First of all FEDORA that you all know and I don't think I need to say more about the good relationships and the support from the Commission that helped the creation of this network. In the context of vocational training, I should mention the Euro Guidance Network,

the national resource centres for vocational guidance which was set up in the context of the old PETRA programme and is now supported by the Leonardo da Vinci programme. Again this is focused on vocational training while FEDORA is more focused on the academic world within Universities. A future initiative that will be implemented at European level is the so-called database on jobs and learning opportunities in the Lisbon Council. I have already mention there was the decision to provide employment services with a Europe-wide database on jobs and learning opportunities. Subsequently the employment guidelines for 2001 called on member states for measures to improve the job matching capacity of employment services, to develop policies to prevent skill shortages and to enhance occupational mobility by promoting geographical mobility of workers. In this field the Director General for Education and Culture of the Commission plus the Director General for Employment and Enterprises are working together on the establishment of a common portal including two sections, one on employment which will certainly be based on and exploit the existing EURES information and the other one on learning opportunities which means where to study in Europe. In this context a database has been started in the field of vocational training, but it could be also be extended to the field of higher education. This action will be launched probably in the autumn.

Finally the Memorandum on Life-long Learning. This memorandum has been produced by the European Commission with the aim of developing a coherent overall strategy for life-long learning in Europe. The purpose of the memorandum is to launch a Europe-wide debate on a comprehensive strategy for implementing life-long learning at individual and institutional levels and in all fields of private and public life. Life-long learning is recognised as necessary in order to ensure the employability and personal fulfilment of current and future generations, to ensure their inclusion in society and to promote active citizenship. At the heart of the memorandum, six key messages offer a structural framework for an open debate on putting life-long learning into practice. The intention is to conduct as wide and diversified a debate as possible up to the end of this year, using a bottom up as well as top down approach. The debate at European level is paralleled by consultation within the member states, the countries of the European economic area and the pre accession countries. Meanwhile work to develop indicators and benchmarks and to identify good practice is being conducted.

The outcomes of this consultation process will be used to prepare an action plan by the end of this year, which will specify policy objectives, concrete initiatives and benchmarks for implementing life-long learning in Europe. One of the core six messages concerns the provision of easy access to good quality information and advice about learning opportunities for all ages. It is importance since it is the first political message given at a European level on this theme for some time. This message recognises that guidance constitutes a fundamental tool both for promoting and maintaining employability and for supporting personal development. Implementing life-long learning means proposing a new approach to guidance. It means envisaging guidance as a permanent process thus overriding the distinction between educational, vocational and personal guidance while addressing new customers and new users. It also means integrating the concept of life-long learning into guidance. Counsellors are now required to act as facilitators in the process of promoting the development of a culture of learning. The Memorandum identifies a series of challenges and obstacles to implementing a life-long guidance system and consequently it proposes some key questions in order to identify the most suitable steps for action. The first fundamental message is that the new approach to guidance should be holistic, focused on the real needs of the beneficiaries and demand driven.

The rigid distinctions between education, training and employment as well as between vocational and personal guidance should be overcome because they do not correspond anymore to the real needs which emerge in the knowledge society. It should be recognised that every moment of transition may be a moment of crisis, which may need counselling. A new approach is needed which envisages guidance as a continuously accessible service for all. The local dimension was recognised as essential to the development of such structures. The local level in fact facilitates the establishment of liaison between the supply and the demand for labour as well as the development of a personal approach. The solution which allows the combination of the local dimension with availability of a specific sector of expertise may be the creation of a network of different specialist expertise, thus pulling together existing resources. Even if its recognised that the private sector may well play a role in the creation of

life-long guidance services, it should be emphasised that the public sector must keep the responsibility for keeping a framework of ethical standards and in defining targets. Guidance should be available to everybody and particularly people at risk of exclusion should be able to benefit from it. Besides everybody should have the right to have access to a neutral guidance service independent from the interests of the employer.

A major issue related to the creation of a life-long guidance system concerns the training of counsellors. One of the main issues is the lack of a set of standards for the profession of counsellors at European level but in many cases also at national level which may curb the interest that counsellors may have in taking training. Another topic of paramount importance is the access to guidance. In many cases potential users are not aware of the existence of guidance services. This is a special issue for those target groups which do not have contacts with institutions such as schools or universities acting as mediators or providers. There is therefore a need for a better marketing of life-long guidance services. In planning such a marketing strategy the consumers' perspective should be taken into consideration. A very important role is to be played by the new technologies above all the Internet in guidance provision. The Internet can be a very useful tool for self-guidance and it can provide an essential basis for the creation of networks of guidance services. It should be clear however that the Internet couldn't be proposed as a complete substitute for personal guidance services. It is therefore important to adopt a flexible approach, combining techniques, which are suitable for different target groups. Other problems concern the reliability of the information available on the Internet.

The memorandum lists some questions which are meant to open a debate that will lead before the end of the year to the determination of a concrete policy. Such questions concern for instance the announcement of existing initiatives and services in order to give guidance a more central role in the construction of Europe. Further impetus should be given to the development of Internet based tools for self-guidance, the improvement of initial and in-service training and professional development for guidance and counselling practitioners, the wider application throughout Europe of innovative approaches such as one-stop shops and the issue of quality assurance for guidance and counselling services. This was one of the main messages of the Memorandum on Life-Long Learning that was prepared not only by the Commission but with the co-operation of the member states and experts in the field. To confirm the interest that is given at European level to guidance and advisory services, on 22 June the official journal of the European Communities published a new call for proposals for joint actions between the different European programmes, Socrates, Leonardo de Vinci and Youth, to support a very limited number of a very highly ambitious project in three subjects.

One concerns the construction of bridges between qualifications for a system of transfer and accumulation of training credits for life-long learning, a kind of ECTS applied in other contexts, in the context of Life-Long Learning. The second theme is guidance and advisory services, key instruments for the implementation of Life-Long Learning towards a holistic approach. The call presents the context of the objectives of each initiative and calls for proposals ranging from the development and conduct of research and analysis of existing experience to the identification of criteria in the area of guidance in the context of Life-Long Learning, to the identification of necessary competencies and the development of pilot projects which could be undertaken to follow-up and apply the results obtained. This call was published the 22 June 2001 in the official journal number C177. The third subject is multi-purpose centres and e-learning which is the application of the new information technologies in vocational training and education, and again the call is for pilot projects.

Today I hardly touched on the subject on which I am working in Brussels which is higher education but we do not have the time to go on. I just want to stress the fact that the precondition for Europe of Knowledge and for all these actions which we are presenting is a stronger European perspective and dimension at all levels of education. I speak in this case for higher education, and in this context there are several factors that can lead us to a certain optimism. First of all the Bologna process for the establishment of a European higher education area by 2010. This has been declared by ministries from about 30 countries. It was signed in 1999 in Bologna and two months ago in Prague it was reconfirmed, so member states have plans to make their systems more compatible, their titles more

comparable, more transparent, the quality of education more assured and to improve mobility and networking. I will conclude with Erasmus. Next year we will celebrate one million Erasmus students over 15 years which is a very satisfactory statistic. It means that we have at least one million young citizens who have already experienced in their life the concept of Europe. They have been pioneering the European citizenship that we all talk about so often. With this new generation and with this new European environment we can believe that together with the common and joint efforts at all levels: political institutions, universities, associations, NGOs and the vocational training organisations, the objectives of the Europe of Knowledge and the objective of a strong and large European Union could be achieved.

Once again I wish you a very successful summer university. Unfortunately I have to leave you now but I am sure you will have a lot of interesting discussions and a lot of input. I wish you a very good discussion and especially fruitful activities when you are back in your workplaces. Thank you very much.

Margaret Dane

Thank you very much. I realise that you are now departing to get a train so we will not hold you back. Can I just remind people that copies of this list of web site addresses is available at the back of the hall and on that are a lot of the documents that Mr Gaudina was referring to. If you want to find out more about the specific projects the website addresses are in there and I am sure many of you will want to do that to find out more

Massimo Gaudina

I can stay a few more minutes for any questions, if possible focussing on higher education.

Jan Herpinck (Leuven University)

I have a question about the database about employment and learning possibilities. You said the primary focus is on vocational training but what does this mean? Is this something which is relevant to universities and will this include information about academic study possibilities?

Massimo Gaudina

Yes, at the moment a feasibility study on this database is being carried out so we don't know what is the result of this study will be. At the end of it, which would mean at the beginning of September maybe, it will be a clearer what learning opportunities could be on this database. Its focus is on vocational training because it is the vocational training services in the commission that have initiated the study, but there is a possibility that it could be a more general learning database covering study in Europe not only vocational training but also universities. We already had some experience in the past of some big databases that were launched at the beginning of the 90s before the explosion of internet. This is a big project did not work as well as we expected so now it is time to try something new and coherent for the future.

Margaret Dane Thank you and bon voyage.

The new entrepreneurs

Stephen Eames

Louis De Vos (Université Libre de Bruxelles)

My role here will be very tiny because I have to make some important announcements about the programme and then introduce Andrew who is going to introduce our next speaker Stephen Eames.

Andrew Bottomley (PriceWaterhouseCoopers)

This session was originally going to provide an opportunity to listen to the experiences of entrepreneurs, but that has not proved possible. It was always planned to have an initial presentation from somebody with day-to-day expertise in business start-ups, business risk, e-business, e-commerce etc. I am pleased to be able to introduce my colleague, Stephen Eames, who is based in the UK but has flown in here from Germany who will provide some insights into the issues around business start-up, incubators and the risks involved from a variety of sectors. You can see we have had some technical problems, but Stephen is hoping to provide you with a presentation after which we can throw open the discussion to the floor and have a number of questions and answers. First of all Stephen would like to introduce his own background and explain where his experience comes from, a little bit about the nature of his job before he gives his presentation. Stephen Eames.

Stephen Eames (PriceWaterhouseCoopers)

Thank you Andrew. Good morning, bonjour. As Andrew says my name is Stephen Eames and I am a director in PricewaterhouseCoopers in London. The department I actually work in deals with growing companies. Basically what we do is work with entrepreneurs who have ideas about start-up businesses, groups and individuals who may have ideas of what they want to achieve. They usually have started a business and have some idea of where they want to go to and what they want is help to develop that idea, to take that idea to different markets, to attract funding and to get people to support them. What we do is to help define their business plans, to put them into contact with venture capitalists or further down the line the main markets be it the Newmark or the London Stock Exchange or Paris Bourse, any of those. I hope I will go on to explain in terms of e-business in particular and e-commerce quite where you want to position yourself is far more of an option these days than it was in the past. What we do is help them develop their business plans, we advise them on various matters relating to all aspects of their business be it tax, accounting or legal matters and on how best to use their business idea. What I have been doing over the last ten years is working with various groups of individuals and ideas they might come forward with, range from service sector type operations through Internet businesses through to high tech start-ups be it in either electronics or biochemistry or whatever.

My principal experience is not sector based, it is rather working with entrepreneurs and trying to develop ideas. If I could put that in context with what I do on a day-to-day basis some of my current clients I work with, not wishing to just drop names but perhaps give some indication of what I am currently doing, one of my listed clients I deal with is QXL Ricardo which is an internet auction site which is now across Europe and we have been involved with that organisation since it was founded. Basically we took it on when the business was based in a garage and a bedroom of the house. The founder had an idea as to what he wanted to achieve and we have now developed that with him, to take it forward as to pan European auction site. So obviously from the start-up base through to where we are now, there have been a lot of changes and we have been involved to make sure that they have been able to make best use of the capital market and to develop that idea as quickly as possible.

Another business I am currently working with develops leisure centres or sports fitness clubs across Europe. Yesterday I was in Germany in discussions with the owners of that business in negotiations with some local businessmen in Hamburg who wanted to enter into some property deals to actually give them some further sites which they can then use to develop their fitness clubs. I was helping broker I suppose or negotiate on behalf of both parties to find a common ground on which they could

business. I was actually providing some experience, a steady hand, to try and make sure that both sides of that business relationship moved forward. That really is the sort of experience within PWC are used to providing but it is important, I think, in terms of the entrepreneur environment to provide some background and business experience, especially for some of the younger companies that have come forward in the last two, three years on the back of the Internet development and actually to help those business ideas become set in a more stable financial framework so that they can move forward quickly.

That is the background. The presentation I was hoping to go through, but so far I have been frustrated with the technology. I will just check at this point whether there is any chance of running this. I'd like to spend some time explaining the role of the Internet in the development of e-business and then turn to some of the reasons why the perceived bubble has burst within e-business in the short-term and why there have been quite a lot high profile failures of some of the dot.com companies. I think it is important for entrepreneurs to understand not just the successes and how they can build their businesses, but some of the pitfalls to avoid and some of the problems that can exist and can cause business failures. One of the major statistics to be aware of in terms of business start-ups is that the vast majority of businesses actually fail, but what you need to be able to do is learn from those failures and actually take forward the good business ideas you might have and then perhaps reposition them into a better market or in a different environment that can lead you to succeed. One of the reasons the Internet has become so popular as a means of developing new business ideas is that the main benefit of the Internet is the ease of information.

What it provides is a platform for people to develop and expand ideas very quickly and to contact people who may have similar ideas and be interested in similar developments within any type of business environment. That becomes important because one of the difficulties for new businesses when they first start up traditionally is finding out through market testing, how well their idea will be received. It can be very difficult if you are a new entrepreneur to actually assess how big a market it is that your product or service actually might find a home for, how well you will be able to sell your ideas and how quickly. What the Internet has provided is a means by which, for certain sectors of the population, i.e. those who actually use the Internet, you can get ideas and information to those people very quickly. Now that has been recognised both by start-ups but also by established businesses. Now what the Internet offers is a means by which you can access a lot of people very quickly and actually target them by their specific interests. So what you have got is a means by which you can develop information flows both for your existing products but also finding new channels to introduce new people to the products you might have.

For those of you are familiar with going on the Internet there are a number of very well known players, some known as portals which basically are mean by which you can access different sites. One of them is Amazon.com and the reason I mention that one is it is very famous for changing the business model for the way book selling is actually operating, etc. The assumption at the moment when people hear about Amazon is it is primarily a bookseller and what it is doing is cutting out the need for people to go to bookshops. This is true but what is actually developing is the means by which people can actually assess information very quickly and find out availability and prices, for not just books but for a whole range of different products. It is that element of their business that becomes more interesting and more relevant to businesses generally because what it has done has shaken up very quickly, the book selling market certainly in the UK and in America, and put a lot of pressure on the pricing structures of existing retailers of primarily books but also things like DVDs and electronic gadgets. What it has really done is demonstrated to people that if you have a particular product you want to sell and understanding of those people who may wish to purchase it, the Internet offers a very good way of identifying quickly where you should be marketing and targeting your products.

That is important for all types of businesses because one of the strongest reasons for business failure is the time lag between developing a product and getting it to an established market because that time lag reflects where you obviously incur a set amount of costs which aren't being quickly covered by revenues. Whatever business you are running what you have to do very quickly is manage your cashflow and hopefully turn in some profits. If you have long gap between either generating revenue

while you are incurring costs or making a good margin on the product or services you are offering you have a long time to fund your business and obviously presents problems especially for a new business where other potential sources of funding be it banks or venture capitalists will be less likely to support you. So the Internet offers a way of quickly trying to identify a potential market and that has been picked by established businesses very quickly. But what is more important I think, looking further afield for the Internet, is it offers ways to actually adapt the way we do business and it offers a chance for new ideas to be brought into the market place by any individual and it now offers a chance for entrepreneurs to either start up businesses themselves or to take good ideas to established businesses and offer a chance to show how an idea can work.

The example I would show you here is what we call business convergence where various ideas can converge into one particular site on the Internet, or it can be various entrepreneurs or companies joining together to benefit from the fact that ideas can be taken to particular markets. One very good example of this is some sites that now have linkages to different products which from the outside will look to be unrelated, so you can have clothing on the same sites as particular travel sites which are linked to particular music sites.

But what is actually happening here is that people use the Internet to identify what customers will be interested in and if they are interested in one particular product they are likely to be more likely to buy other similar related products related to their lifestyles not particularly to other similar types of products per se. So there are now various sites where organisations will combine together by way of joint ventures or take ideas on from particular individuals to try and sell particular products and services through each other's target market place. When that happens what you can do is reduce very quickly the costs you are likely to have to incur in identifying and marketing your products and also gain the benefit of the experience that other people have had in developing their own products and services. It is that idea of e-business in terms of connecting different segments of the existing economy that has the most power. It is in those areas where people can start to develop business models that are very different to their existing means of marketing or purchasing or selling so a whole new model can emerge and people have the ability to change the types of relationships they are now having with their suppliers and customers.

What I would like you to do is just turn briefly and without being too negative, to look at why the current market has been littered with so many business failures from what was the dot.com Internet sector. There are probably five reasons why there is currently difficulty for entrepreneurs with e-business type ideas to get backing for the products and services they would like to develop or the ideas that they would actually like to run with. The first is probably fundamentally having an inappropriate business model. What I mean by that is while the idea might sound good on paper insufficient thought has been given to how that idea would generate revenues. Whatever business you are operating you have got to at some point recover your costs and make a living for yourself. You have got to know where your revenues will come from and in the past what happened certainly in the last two to three years is too much of the revenue that was being forecast was based on advertising. Because it was a new medium people were able in the short-term to sell to other interested parties advertising space on a particular website. That was fine until a critical number of people realised that once you went onto the Internet then it did not really matter who was advertising. You could find your way round as you became more sophisticated you were able to define what you would like to look at the Internet yourself. You weren't so influenced by advertising alone so people started to cut back on the amount they were willing to pay for advertising space on the Internet.

There has also been a problem within the sector with inexperienced managers. I don't think of myself as particularly old but many of the small start-ups I have dealt with in the last five years were run by people who seemed a lot younger than myself and barely out of school. Whilst they had lots of energy and enthusiasm actually managing to combine that with a level of experience as to what might happen if their business plans did not run as they had hoped, meant that a lot of them didn't know what to do or take action quickly enough when for example the level of revenue they were forecasting to receive did not materialise.

Another point I had down in terms of inappropriate business models was that of too many technological problems. The Internet is very good but if you have a site that is very popular then you have to have an ability within your own internal infrastructure to cope with the number of people who would want to visit that site. The growth of Internet use has been rapid and will continue to be so and with some of the companies, their own internal infrastructure could not cope with what was demanded of them.

The other reasons why some of the good entrepreneurs found it difficult to survive is that lots of the ideas that came forward were easily copied. One of the difficulties of starting any business is to try and restrict the number people who can copy you, because if you have a good idea and it starts to generate business, and if it is easily seen how that model works then there is nothing to stop somebody else doing exactly the same as you very quickly. If that happens, clearly you then just half or reduce the revenues you are likely to retrieve.

That we have seen a number of times. If I could give one example of the type of organisation I was working with and these types of sites do still exist on the Internet. They are called price comparator portals. They are means by which people can go in and select certain types of product they would perhaps like to purchase over the Internet. There are search engines or database comparison facilities that would try to identify for you as a customer where you could find the cheapest bargain. Now once that technology is established and people know how to use it there is nothing to stop other companies setting up other comparative shopping portals. Once that happens the competition means that the ability to generate revenues quickly reduce very dramatically. That is an example of where unless you can restrict the number of competitors that start up doing the same sort of thing as yourself, you will find it very difficult to sustain your business model.

The other reasons why some businesses have failed does come back to confidence both through existing management and also people who are likely to back you. One of the reasons there was such a growth in Internet and e-business related enterprises is that the capital markets across the world saw that this was potentially a good way to invest. As such, some of the valuations that were placed on the potential for these business ideas were very high. Once there was slow down in the rate of development of the companies the investment community took a different view of how good an investment these businesses were likely to be and started to withdraw their support. As the growth in Internet businesses was started by lots of people going in very quickly, the reverse has now happened. Combine this with the nervousness across the world about general economic growth and there has been a much reduced interest in new economy type companies for the moment. For the reasons I was saying earlier I do believe this is just a short-term phenomenon.

It is probably worth also reflecting from a perspective of new business start-ups, why people are not going on-line or using the Internet to a greater extent than they currently are. What are the factors that are inhibiting them? The Internet is just a means of flowing information from one part to another and we can ignore the technology for the moment because I genuinely believe the technology is largely irrelevant for the future. If you cast your mind back think back in history to the growth of other changes in information mediums like telephones or television, people today do not worry how these things work, they just accept they do work. They don't particularly want to know how mobile phones work or how we can have digital television. That to them is irrelevant. What they want to know is how they can use them. The same things applies I think in the future to many Internet businesses. What people will want to know is how they can use their own benefit the features that will be offered by the technology and not be too concerned of how that is actually working itself.

If you raise the question if you are starting a business why don't people use this type of technology more as it is there, the information from much of the research done by consultancy firms suggests that it comes down to trust. The perception is that the information they find on the Internet or on-line is not of a good quality and they don't recognise whether it is complete in comparison to the information they have had previously from other sources such as through agents, or if you were perhaps if they were looking at financial information, through trusted advisers they may worked with in the past. One of the challenges that exists if you are thinking of starting a new business in this sort of area, is trying

to convince people you will enter into business relationships with, either customers or suppliers, joint ventures, anyone, that the information you will be using can be trusted, is of good quality and that they need not feel they have to go through an intermediary to validate the information they are finding. It is in those areas that many people including PricewaterhouseCoopers are trying to help those people who are in the forefront of starting new businesses. What we are doing is proving that the product and services we are attempting to develop are, put very simply, well founded, based on a good business model and offer some security for those people who wish to deal with them, that the structures that have been put in place for that business are seen as sound. So what we in PricewaterhouseCoopers have developed are various things one of which is kite- marking, a validation stamp that can be shown on a web-site, which would give people assurance if they are using it that the information in the content on that web-site has been validated and can be seen as acceptable for the market. This is done to try and encourage confidence in those people who are targeted by a business, by suppliers and customers that what they are seeing is valid and they can have confidence in dealing with those organisations across the Internet. It is taking away some of the barriers that existed in the past to developing confidence and trust.

We have also developed various new market places for businesses that are growing. One of the benefits of e-business for any organisation whatever size is that it does offer a way of finding the cheapest prices. It presents a way, as I said earlier, of finding customers very quickly. Now what would be best position to have is that people know where to go quickly to identify common market places rather than having to do lots of research if they know that there is a means of identifying on the internet, sites for particular products or services be it purchase of computer equipment or the ones that have been popular in the past the travel sites where people want to know very quickly where they can find travel tickets. But if you give a business to business site rather just business to customers then the volumes and the amount of trade that can flow through those are vastly increased. So what we have developed is an e dot commerce site which people can go to and it gives them information as to how they can quickly identify market places or business to business transactions.

So what we are trying to support is the framework within which we believe transactions and business will be done more in the future. It doesn't take away the types of businesses that have existed in the past which are known as bricks and mortar, the old economy, rather than clicks which is obviously the new economy, but what it is attempting to do is reduce the time it has taken to identify the markets and the people with whom you would want to do business. That is the great benefit of the Internet for any entrepreneur whatever sector you are working in.

If I could finish after this point, and I more than happy to take questions after this, I just want to mention another business I have dealt with in the recent past which I hope demonstrate how the technology of the internet can be used for sectors which are traditionally seen as not high tech. One of these is actually farming. The idea is farming online which when you think about it seems quite difficult because how can you actually farm anything on the Internet because the Internet does not really exist in one sense it is a virtual place. What farming online was developing was a means by which farmers could identify surpluses and deficits of things like quotas within the European Community and it was also finding different or specialist distributors for particular crops or fertilisers or any other products that would be used within the farming community. Clearly traditional farms tended to be highly labour intensive or small businesses where the farmers themselves did not have great deal of time to go out and develop market places on their own. What the internet has offered them in this context, from their own base, their own farm, is the means of identifying quickly different people with whom they would normally not have come into contact, it might even be across different national borders. They can quickly establish business relationships which can lead them to save money and/or improve their products very quickly. So that was the forum which took the Internet and applied it to an old fashioned very well established set of businesses. So that is one area which demonstrates quite powerfully that the Internet offers a great challenge and a great opportunity to lots of different businesses. It isn't just restricted to high tech in the sense of electronic businesses but can be applied to any business whatsoever.

I think at that point I would like to offer the chance to you to ask me any questions you might have and if I can give you any benefit of experience I have over the last 10 years or so of working with growing businesses and entrepreneurs, that is what I would like to do.

Louis De Vos

Thank you for having delivered that speech without the assistance of new technologies. It is now open for questions from the audience.

Andrew Bottomley

Thank you – it may help when considering Stephen's presentation, the background issues which concern those individuals that you maybe advising or offering guidance to or perhaps even confronting them with some issues to do with proposals for new businesses. I think as Stephen has so clearly illustrated, unless you have the background knowledge, the technology isn't going to do much for you. I think it is worth considering how Stephen may be able to further help the discussions / ideas in terms of skills and attitudes amongst students and other young people who are considering starting businesses as well as the sorts of checks and balances that may be necessary at the developmental stage if you are involved in some sort of intervention at the university level.

Micael Jonborg, (University of Orebro)

I was interested in these stamps of validation on the Internet that PricewaterhouseCoopers has developed. That sounds impossible to me. How could you do things like that? You have the resources at PWC to do this kind of work?

Stephen Eames

Yes, we do. The background to what we do there is through one of our specialist departments which is involved in systems configuration. Its work is checking how systems, literally the networks of companies, are put together, and what we do is, I suppose, three things. One, we check that the infrastructure in terms of the servers, literally the hardware, is put together on the internet to make sure that if people are going to that site, what they see on their screens does actually link back to the businesses behind them. One of the difficulties that has been publicised is that the potential for fraud on the internet is seen as high because people if they believe that the internet relates to virtual companies there is no one they can go and knock on the door and say I have tried to purchase from you, where are you? Whereas if you go down the street and buy from somebody you can go back and find them. The theory is that you cannot find these people again if you try and do business on the Internet. So part of the validation process is to confirm and give a stamp, an authority, that who people say they are is justified by means of connections back to a real business. So that is one part.

There are two further parts to the sort of validation process. One is to make sure that, when you do a transaction with a particular internet network site and you give them your details and it becomes an interactive process, the means by which that happens is in a secure environment. Again a fear that many people have is if they give any details about themselves over the Internet somehow that is an open forum therefore you are actually revealing details to people to whom you may not wish to be doing that. So what you would like to have happen when you go to a particular site is be confident (as you maybe think you are on a telephone, although my belief is that in reality that may not be more secure than any other type of forum,) but you are confident that when you are dealing with one particular party it is only that party you are dealing with. You are not opening your details to lots of other people. If that is true the way an internet site will be configured will be constricted in certain ways to make sure that details are encoded or encrypted and given in a secret way. Again we have teams of people who validate that the computer programs that are used to take the information you type in at home is then encrypted or coded before it is sent on to the party you are dealing with. If we can check that we can again give confidence to people on both sides of the business transaction that what is happening is secure. That is one area of our business where we have actually set up a separate company, to do that. The reason is that we want to demonstrate that it is secure and independent from PWC.

Otherwise people might say, if you develop this ability to help us, aren't we just giving all the details to PricewaterhouseCoopers and we might not want to do that either. We want to literally just communicate between ourselves and our business partners or customers. Again that is something that we have done.

Per Andersen, (University of Southern Denmark).

Thank you for a most interesting insight. One of the problems facing us as careers officers at this moment is that entrepreneurship is on the agenda for everyone, the political agenda, the EU agenda, every universities' agenda - there is a lot of interest in the field. We see science parks promoting themselves in this area and selling advice, we see companies like PricewaterhouseCoopers and other companies going into the field saying that they should be the ones who should be giving people advice. We see market places popping up where venture capitalists meet young entrepreneurs and we also see other initiatives. One of the problems is it is actually very rarely that we meet a student who comes to a careers service and says I have got a great idea, help me, where should I go to realise these ideas, where is the right person, the neutral person who is not interested in gaining any kind of success on my behalf or taking my idea. Where should we actually advise them to go?

Stephen Eames

That is a very good question. I think the reality of business is that if you have a good idea there are very few people who have a completely neutral opinion. Within the business world everybody wants to make money, everybody wants to do well, so to expect to find completely neutral people and a lot of them is probably unrealistic. I think what is important for entrepreneurs is to understand that if they are going to develop their ideas the likelihood is they will have to go into partnerships of some description with other people. So it is matter of trying to establish business relationships with people where they can see why they would want to be helping them. PricewaterhouseCoopers, if I use my own example, the reason we are interested in growing is clearly because we recognise that if they do grow and become successful they will need other services either for regulatory reasons or because we have the experience and specialist abilities to help them through say capital markets. If we can work with those people from a young stage, they are most likely to turn to us when they need those critical components for their business. What is also true however is that we know lots of businesses will fail and what we are trying to do is manage our own risk in terms of developing our own business. So I think what would be important, if I was in the shoes of a careers adviser whose student was coming to me to talk, would be to explain to them what the interest would be of other advisers and where in their own business development those business advisers are likely to value them and why, and actually present them an understanding of why the wider business community would have interest in them. If they are true entrepreneurs they will be prepared to take some risks but I think what is important for young entrepreneurs to understand is the nature of risk is they are taking. A lot of the time they probably realise that risks exist but don't quite understand how those risks will affect them further on in terms of the business model they are operating.

I don't think there is one person you could go to and say this would be a completely independent source of information. Giving advice is a challenge in itself because it is quite a big market for them to understand. You can at least give them some questions to think about. If they came to PricewaterhouseCoopers they would be aware that we would want to be with them for a long relationship because some of the value we would take from them, quite openly, is at a critical stage where they would need help in terms of say crazy money or making a flotation of their company on a stock exchange. That is an expensive business but we have the experience to help them do that.

Andrew Bottomley

Might I add just some more points? Stephen earlier ran through some of the very recent learning that stems from dot.com failures and that learning is not necessarily restricted just to that area. There were five points to do with commercial errors committed within the last two years that have resulted in widespread failure and some of these key features really embody the thinking that any new potential

entrepreneur, when talking to an adviser, should perhaps have his or her attention drawn to. I have certainly noted those down and I will ensure that they are reflected in any notes from this conference.

Margaret Dane, (Heriot-Watt University, Edinburgh)

I was interested too in how your clients actually get in touch with you but that question has been superseded by the earlier one about what neutral sources of advice there are. I don't know about other countries, and it would be interesting for FEDORA perhaps to look at this issue for sharing such information about such sources. Certainly in the UK there are careers services that are advising new graduates, not necessarily people who have been in work for some time, which have access to a series of helpful booklets. In the workshop I just ran I brought some examples which list sources of advice. One I brought is called "Alternative Employment including Self-employment" and there are a quite a number of sources of fairly impartial advice listed there. In Great Britain there are networks set up under the umbrella of the National Employment Service which are designed to encourage enterprise but they are not for profit. They are there to give people advice about the issues they have to consider about themselves and about their business ideas, but also sources of advice for drawing up a business plan, finding initial start-up funding etc.

Raoul Van Esbroeck, (Vrije Universiteit Brussel)

I am a psychologist so my question is related to the profile of people in e-business. We know that we can dedicate some aspects to the profile and to the personality aspects of people in entrepreneurial positions. I do not have so many contacts with these people, but do you see a difference in their profile?

Stephen Eames

I think there is. I think what I found very interesting and why I have enjoyed working in this field, is that with many of the companies that I have been dealing with, certainly out of the universities or people who have more recently left universities who have set up companies, there are common themes of having small teams. If I just take the dot.com business sector at the moment, although I think some of the principles apply more broadly, I can think of a couple of examples of companies I have dealt with very recently where the key players in the company tend to be groups of two or three individuals. These frequently have within them a very risk friendly person, someone who is very keen to take risks. It might be someone at university who has been seen as someone who is willing to gamble in various walks of life. They have seen the growth of the sector and some of the success stories that have been widely publicised of how people have made lots of money very quickly and thought this is something they would like to do, but they have combined themselves quite often with some other people who are very strong technically in terms of the internet or understanding some of the technology side of the business, and then it tends to be a third person who acts as a catalyst or just someone who pulls ideas together and pulls people together, more of a sort of a team player. Certainly three or four of the companies I have got tend to be of three component parts for a business. I think the technology role can be in any field. Some of the other companies I have dealt with, where I am based between London and Cambridge where there is a centre for lots of medical and biotechnology start-ups have been in the field of Biochemistry. What you have there is people who can understand or have seen the potential for business growth and they know somebody who something specialised. They have got a colleague in their lecture theatre who was always the one with good ideas or had a particular subject which they would take a lot interest in and what they have basically done is say, I know how to run businesses or I have seen how it is done, I think I can do it. Why don't we take your idea? It is small groups like that have come forward certainly from the universities in the UK and in the States, that then formed the basis for taking some businesses forward.

I was interested in what the lady from Heriot-Watt was saying in terms of making the information more widely available now because it is certainly true and on the websites of most of the accounting practises you can actually find information on how draw up a business plan for example which is there to be downloaded for free. But what I think is interesting is that the people who have come forward in the past have got in contact with organisations such as the one I work for, almost through casual acquaintances or friends or by accident. It will be somebody they knew in the year above them at university and who left and joined solicitor or firm of accountants and they will say to them or their

elder sister, older brother, do you know anyone who works for a firm of accountants who can help us. If I mention QXL which is a client I deal with, the reason PricewaterhouseCoopers got involved is actually that one of our students, who was studying for their exams at the time, was friends with the person who had this idea and was trying to start this business. He came to us and said, do you mind talking them, it seems quite a good idea. That was how those connections were made. It would great if it didn't have to be so much by chance. Thank you.

Louis De Vos

OK I think we are running out of time and if we want to have time to relax for the dinner I would like to thank, in your name, Stephen for his presentation and the answer to the questions. Have a nice lunch and be on time in the workshop this afternoon.

What about teaching entrepreneurship in higher education?

Andrew Bottomley

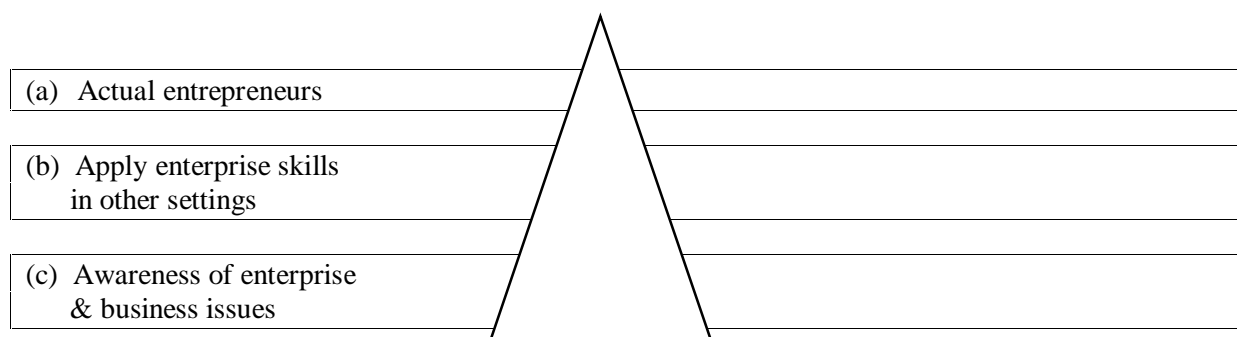
Margaret Dane

I would now like to hand over to Andrew Bottomley who kindly agreed, at very short notice, to take you through teaching entrepreneurship in higher education instead of Val Butcher. Thank you very much Andrew,

Andrew Bottomley (PricewaterhouseCoopers)

Quite a lot of things are changing now. There are two things that are constant from yesterday in the workshop and I can assure you they remain the same. One I am still Andrew Bottomley, two I am still very warm.

There has been a lot of talk in the last two days about entrepreneurship and you have all attended different workshops, you have all learned different things. What I am going to try and do in this session is provide some kind of overview partly by means of a suggested scheme but I am also going to be encouraging you to think about some of the criteria should you start to consider when teaching entrepreneurship. The topic of this session as Margaret said is about teaching entrepreneurship in higher education. Entrepreneurship or graduate enterprise, I shall use both phrases interchangeably so I mean one and the same thing. We are going to be looking at some of the criteria, but before we go there I was thinking for the five or ten minutes I was given to prepare this, it seems to me that what we have actually been looking at in some instances, are sets of skills that could be applicable in a variety of ways. I don't think that when we are talking about graduate enterprise and entrepreneurial skills we are just talking about people who are going to go away and start their own businesses.



The small area (a) represents the new graduates who will actually start new business ventures. A far larger group represented by (b) are graduates who, in acquiring enterprise skills, will be able to apply those skills in larger established businesses and I can assure you that this is something of growing importance. I think I have heard it referred to as intrapreneurship but it is the application of a rather more focussed way of thinking, "I have a greater stake in this business, I have ownership in this business and I am going to help drive this business forward". It is perhaps less passive than might have been the traditional approach to employment in a large business and I know for example that large organisations like Proctor and Gamble have in the last 12 months taken some really substantial steps in training their new graduates to equip them better with what they are calling entrepreneurship skills. The third group (c) are going to be the vast majority of graduates who aren't going to start their own businesses, they are not going to work for Proctor and Gamble or anywhere similar but they may have a whole variety of apparently unrelated roles. They may be working in the public sector, but it is increasingly important they go into that area of work with greater business understanding, business awareness, business empathy. This is important because there is mounting evidence of public sector projects that are bringing in private sector funding, of projects which involve public and private sector partnerships. I am certainly not here today to discuss whether that is good or bad but merely to reflect on the fact that that is actually happening and that is going to happen with greater success if graduates

in area (c) are rather better equipped to understand entrepreneurship and the relevant skill sets which are required.

I would like therefore to offer a structure to you. Please stick with this even if you disagree with it because I can roll this out as a model that hopefully you can work with this afternoon, if you are putting a business enterprise module into the curriculum, or in a university. This might be a typical set of aims promoting business enterprise, graduate entrepreneurship through first of all, maximising learning by actually spending time in a real business, and acquiring key skills that will improve employability. That may be a nasty word but we seem to see it used a lot in English language publications. In other words, to improve the ability to transfer these skills into an area of graduate employment that best fits the individual's skills, desires, attitudes, etc. The second way is by gaining an insight into the working of small and medium size enterprises, not big companies where everything is split up into very large chunks and at best in an undergraduate placement you might learn a tiny bit about one of those very large chunks. In smaller and medium sized enterprises there is a very real chance to get a good overview of what that business is there for, what it is doing and what its key functions are.

The third way is just raising awareness about the possibility of self-employment or starting a small business as realistic career options on graduation. So all those areas in the triangle, (a), (b) and (c) can all be catered for and satisfied by these aims. Just take that one step further and say, given those aims, what kind of objectives have we got? In order to achieve those business enterprise aims, we are going to be asking people to work with others outside the university environment and then back inside to originate a business plan and manage an enterprise effectively within relevant guidelines. I don't want to cover this at the moment about what the relevant guidelines might be, but that is something maybe you can think about in a minute or two.

They need to develop systems and procedures for operating that enterprise and to implement these in practice, by watching somebody else do it, actually being able to do that work themselves. We and they then need to identify, evaluate and recording that persons own skill development, with reference again to set criteria, so here we are talking about some sort of record of personal development.

You can list pages and pages of skills but I want to just to try pick out some of the things we have been talking about over the last two days and map them on to those objectives. We could reasonably say that skills for graduate enterprise are going to involve three sets – core skills, career management skills (CMS) and knowledge / expertise in relation to the particular specialist field chosen. Core skills to do with those three things are teamworking, working effectively in achieving joint objectives with other and planning and organisation. My colleague spoke this morning about some of the common features of failures of enterprise start-ups whether internet based or not and frequently it is down poor planning and organisation, inadequate research skills or problem solving and analysis that many, many graduates have, but sometimes are not really aware of their relevance in the world of work. What seems critical, the more I hear at this conference, is self-analysis, self-image, self-belief, confidence, whatever you want to call it, this ability to take risks and be comfortable with areas of threat, risk, competition that would really worry other people. Individuals can actually prove that set of abilities by accurate self-analysis. That requires help and guidance to develop occupational awareness, commercial acumen, (by acumen I mean a combination of awareness and ability in the commercial world), and then the understanding of standards which was mentioned this morning, and the different functions and development of small businesses. All these can be acquired by time spent in such a business.

If we go back to the original question, what about putting enterprise skills into the academic curriculum, then there are criteria that have to be considered and there are related questions to these criteria. I appreciate there are more criteria than these eight and if you think there are very important ones that I have missed then please add to them. What I would like you to do now, and I guess some of you knew this was coming, is to go into groups of six - eight people, possibly with someone you have never met before, so you are going to have to move around out of your seats. You can work anywhere

in this room, but I would like you to give ten minutes in your group to consider related questions to those criteria and then we are going to spend a little bit of time towards the end of this session sharing what it is you have found there. It might be useful to appoint a scribe, someone who will record the key aspects of your thoughts because I am going to ask you to present back to the rest of the group at the end what you see as the main criteria in terms of implementing enterprise skills into the academic curriculum.

What I am saying is that if you are in the position of starting to ask about teaching enterprise skills then there will be these criteria. There may be more, but I am asking you to consider these eight. When considering these criteria, there would be related questions, so for example in relation to assessment, who does the assessing? When is the assessment? Do you assess enterprise skills by examination? I don't think so! Or maybe you do. This is what I would like to hear from you. I think you will probably be able to learn from each other if you try to do this in a group. Please mention what you regard as critical questions.

Group 1

This group talked about teaching methods as one way to make sure the skills that Andrew was suggesting in his table could be learnt by the students and we talked about how to manage this using case studies or through mentoring. It also considered new techniques, the use of the Intranet and e-learning for example. What kind of teaching methods will be suitable for the best result.

Group 2

This group discussed the list of skills where those on the left hand side would probably be what all of us would promote as the skills which any graduate must have, including for example teamwork, the ability to plan and organise one's own time and to solve problems. Actually that is what we are teaching our students from the first day to when they leave university. So that leaves us with the right hand side of the skills list which includes self-analysis and image, occupational awareness and commercial acumen. The group was in doubt whether these could be a part of any university curriculum because self assessment, analysis and image calls for assessment centres which are used in modern HR techniques but not something we have the resources to set up at a university. The career service might be able to help with some aspects including occupational awareness, but not as part of a full course study. Commercial acumen may be developed through work experience.

Group 3

This group discussed team work as a skill and as far as assessment is concerned there was a practical example that Kimberley provided. She had a course in the United States where the grades are awarded 50% was from individual work and 50% from the team's work. They discussed how to motivate everyone in the group to do their best for the best of the group. Some of them could be satisfied with just passing. We want students to develop team work abilities but there is a tension between how are they assessed on their individual work versus their team experience, how both can be assessed fairly reflecting the real division of labour. It may be a 50 : 50 split or members of the team could assess each other perhaps as another option. Methods of teaching also include training and practical experience, perhaps internships from their first year onwards. This group also talked about establishing an enterprise as a group of people who go through this experience that perhaps teams form in which they develop an enterprise of their own. Another area tackled was institutional inertia. How for example do you get buy-in from the rest of the institution if they don't all agree that this is a wonderful thing to be doing.

Thank you all very much. I appreciate that there was not a lot of time to do that, but my objective was to try to bring together some of the thinking and the reflections that might have occurred over the last two days. Comparing these overheads, we have got quite something to think about if entrepreneurial skills are going to be introduced into the curriculum. Some of the issues that are raised are connected with traditional teaching methods which may not be appropriate, resources which may not be appropriate, the fact that perhaps careers services could be expected to deliver the core skills but some of the more sophisticated skills relating to entrepreneurship are going to have to be delivered by

other people. There is a whole host of issues about assessment, particularly focusing on teams, how do you persuade people that they are going to receive a mark for a performance that is affected by the performance and enthusiasm of others? I am aware of some work that is being done in UK universities start tackling these problems. I hope it has been useful to actually address what might be some of the early hurdles were you to leave this conference with sufficient enthusiasm to start some discussions in your universities about how to take this sort of thing forward. We are just seeing that it is rocky road, you are not going to do this next week, not unless you have got some fairly amazing capabilities and you may want to consider resources, partnerships and perhaps the stance of your whole institution. Do you want to be the independent enthusiast or are you going to have to engage what might be termed a “champion”? Are you going to have to convince somebody in very senior authority that this is something they should be doing and they are going to help you implement entrepreneurialship in your university? Thanks very much for your contributions. I hope this session has been useful.

Entrepreneurial careers in modern society

Peter Hawkins

This text includes English and French texts in the order in which it happened

Gerhart Rott, (FEDORA Vice- President, Wuppertal University)

I am very happy that it was possible for the organising committee to invite Peter Hawkins to speak to us and to start this final day of the Summer University. Peter Hawkins works at the University of Liverpool, in the “Graduates into Employment Unit”. He is the author of a number of publications. I think most of us know his very useful publication “Graduate Skills for the 21st Century” which covered many of the things we are discussing here, developing skills and how this can be done at University. He has actively supported FEDORA for example by speaking at the Amsterdam Summer University (1996) on the theme of life-long learning. Since then he has written another very interesting book, “The Art of Building Windmills” and has subsequently developed a training programme based on the concepts in this book. In times of change some build walls and some build windmills. Of course as a German I think of the Berlin Wall – built to keep the wind out. We need to learn to build windmills to use the wind, to use change in a constructive way which helps to solve problems. I think during this week we all did a very good job adapting to the wind and during this week we really did build windmills, being quite flexible with a lot of problems. I am very interested in hearing what Peter Hawkins has to say to us this morning and I think it will be a good starting point to do this last day.

Peter Hawkins (Liverpool University)

Thank you very much, I've got just over an hour to teach you the art of building windmills. What I would like to do is three things. One is to look at entrepreneurial careers from a personal and professional perspective. Secondly I would like to show the importance of linking career management with economic growth and thirdly to help you to define what you are going to do to build entrepreneurial skills or take an entrepreneurial spirit back into your own institution and into your own work. So 3 challenges just over an hour to reach those. To start, I think it's really important that we think about our lives and think about an equation: 40 times 40 times 40. We spend 40 years of our lives in a job, 40 weeks every year, 40 hours or more every week. And if we think of this strip of paper as our life, maybe we do the following. We spend some of our time in education, (cuts some of strip off), maybe we do a PhD (cuts off some more), we spend some of our time sleeping, (cut) we spend some of our time - big time- in work, (cuts off big section) we spend other time recovering from hangovers and problems. We spend time caring for the family and this (shows small piece of paper) is what is left for ourselves, not very much. My question is, and I think the whole theme of this conference is, do we manage our careers in a vertical way or do we change our mind set, do we think in a more entrepreneurial way and do we start to think about the connections and the links and the packaging between all of these aspects so that we get the balance right for ourselves? Now for me, my balance is not 40 times 40 times 40. It's one third, plus one third, plus one third. My aim is to spend a third of my time in business, a third of my time in education and a third of my time volunteering for adults with learning difficulties and special needs. To achieve that, I have to earn enough money in my business third to create the freedom and flexibility for the other two. What I am talking about today is how we manage that combination, how we become more entrepreneurial in what we do, because who ever we are, we all need to develop these sorts of skills. So I would like to discuss what these skills are, how we can develop them and how you are going to take them forward.

One of the biggest entrepreneurial skills is learning from other people, learning from role models and I would like you to learn from this little story. It's about a bird and the bird is called the condor, a big big bird. It is a speciality in Argentina and to actually fly, the bird needs a big runway to lift off, needs

to actually zoom off, but it needs the space to do so. The hunters in Argentina love the bird, the condor, it's a speciality. So the way they kill the bird is to clear a small space in the bracken, in the bushes, in the shrubs, and the small space has on it a stake with food for the bird. The bird is flying gracefully through the air, sees the stake with the food and comes down and eats it. The hunters then come in, the bird tries to escape but because there is no runway there is no room to lift off and the bird dies. The same analogy is within our careers, our lives. Many of us get sucked into 40 years on a conveyer belt, 40 weeks, 40 hours. We do not spend enough time and build enough space for ourselves. Particularly in the guidance profession, we tell other people and we guide and advise other people but do we apply the principals to ourselves? So my first challenge for you is to build your own runway. I've got five minutes for you to build your runway and to help you do, that I have a special golden ticket. My golden ticket is about reaching your full potential because everybody in this room has an amazing potential. You are all experts in your field but if we saw your golden ticket when you retired and we discussed it, and we agreed that you had, throughout your career, realised your full potential, what would be written on that golden ticket? How do you see success? What do you see as your major achievements? How would you like to make a difference? You have five minutes to write out your own personal golden ticket, starting from now. What words would you use? How would you see success? In the next 10, 20, 30, 40, 50 years what would you like to achieve in work, in learning, socially, personally, in your family? Start off with work, but just create your golden ticket, your own personal success ticket. How can you be more entrepreneurial, how can you repackage what you do? How can you achieve even more by trying things a different way? It's a golden ticket, remember, anything goes. Add to the list. We now have partial golden ticket, for some it is very clear, for other people it may still be a blank piece of paper, and no problems whichever you are. My question is as follows: the winds of change are blowing faster than ever before, you can either build walls and not achieve your golden ticket and resist those changes, or you could build windmills and position yourself to make the most of those changes. Are you going to build walls, or are you going to build windmills? I would like you to just turn to a partner and if you can exchange what is written on your golden ticket. But try not just to discuss with your partner the problems. It's easy to talk about the walls, isn't it? My personal barrier: I haven't got enough time, I am too comfortable, I have no experience, I am not confident enough. Maybe my boss is terrible; the organisation I work in is awful, things are moving too fast for me. These are all the walls. What I would like you to discuss with your partner is the windmills, what are you personally going to do to become more entrepreneurial, to achieve those goals? In the left hand bottom box note what other support you need because it is a very lonely process out there. So spend just a couple of minutes on each person. Find your partner when the music stops, thank you. You may have to find a partner that speaks a common language, English or French but you may have to move around, so don't be afraid to just say hello. If you prefer to work by yourself that's great but think and focus on that top left hand box, what are you going to do to build windmills?

Would you like an explanation of each four? The first box is what I need to do to take control of my career, what actions do I need to do? The second box is what are the things within my control? What are the personal barriers stopping me moving forward? In our experience this is often lack of time, lack of confidence, lack of opportunities, lack of experience, maybe family commitments. The third box on the bottom right hand side is what are the external threats, the risks, the forces out of my control? They may be to do with my boss, my organisation, changes in the work place. The bottom left hand box is what additional support is there, resources, people, help, networks? We need to build around the windmills and not focus too much on the walls.

This past week we have gained a lot within this box, haven't we? What have you gained, what can you take away from this past week to start to move quicker to change your way of thinking, to apply things in a different way?

OK, just to move on. You will have a chance at the end of the session to think about what practical steps you are going to take to move on, but I want to share with you a very personal barrier for me, to show a point. My own personal barrier is my eyesight. My eyesight, even with glasses, is so bad I will never be able to drive. Even with glasses I could not pass the test. When I was 17, and maybe you

were the same, you sat in a café or a bar and everybody talked about driving and passing their test and buying a car and I used to go home every night after that conversation and started crying in bed. Thanks for the sympathy. I sat in bed and I prayed that everybody else would fail their driving test and once or twice people failed and I said yes, brilliant, wonderful. But I realised when my sister Catherine passed her test, the more people can pass their test, the more people who can drive, the more people that can ferry me around and the more beers I can have, so I suddenly realised I have and will never change having a big personal barrier. What makes the difference is not my skill, not my experience but my mindset, the way I cope with things. The key is your motivation and mindset to take control; to become more entrepreneurial – this is even more important than the skill. I have had to build my career a bit like crazy paving around big cities with good communication networks and I have had to have other people around me, a very strong support network of mentors, of guides, of coaches to help me. You have got to take control. It's about your mindset, but you will also need to be very good at building up your own networks.

To demonstrate the need for these sorts of activities we did some research with the top 500 companies world-wide and we asked them a number of questions. The first question was what are the major winds of change, what are the major forces influencing your organisation? I am sure you could list many more than this for yourselves. The two big ones are global competition, we're now working in a global market, and technology. I am not going to bore you with that as you have heard many speeches on that already. The interesting thing is the next few questions. Facing those winds of change, how are organisations adapting and developing? This is where we get the lovely management work and the management speak. They are becoming far more customer friendly, far more cost centred, far more flexible in their operation and there are two dramatic things that are happening. Organisations are outsourcing and de-layering, getting rid of non core business, sub-contracting it out and getting rid of layers of management. That second point really does bring up a notion of how we see success. Do we see it as vertical? In your golden ticket are there things about achieving a certain status or are they more horizontal factors for success? I would advocate more and more of us, our families our students are going to have to repackage what success means. Look at it on a balance, a horizontal plain in addition to a vertical plain, not one or the other but a combination.

The reason I am talking about this is because the sorts of words we are using to describe careers will probably be different for each of us but thinking of my family, I would like you to think of your own family trees. Your grandparents, your parents, yourselves, your children if you have any. In my family I had a grandfather and a grandmother who had a job for life. My grandmother's job for life was raising children, my grandfather's job for life was 50 years in one organisation. My father has just retired from the Civil Service, he had a clear career path, pension programme sorted, didn't have to worry about a pension or finance or anything, all sorted. He had a personnel department, which took him on each stage of the conveyor belt. He had security. Myself, the son, I have to, and more of us have to deal with the notion that to be employed is to be at risk, but to be employable is to be secure. To be employed is to be at risk. To be employable is to be secure. I have to sort out my own pension programme, I have to sort out my own balance of clients, I have to manage that third, a third, a third. I am not saying that we all have to be like this but in future more of us will shift and change towards self managing our careers. What was interesting when we asked the final question to these companies, these 500 companies, what they said was that individuals need to be far more self reliant. These are, in a sense, the self-entrepreneurial skills. We could almost call them the social entrepreneurial skills because they are about our communities and us. They are not necessarily about making loads of money for a business, they are about getting what we want for ourselves but also for our families and our communities. Not a selfish skill but a self-development, a community development skill. And if we look down this list, we are talking about high levels of self awareness. Do you know what makes you employable at the moment? Have you got an up-to-date list of your core skills? Have you got feedback from colleagues, friends, peers? Be honest, when was the last time you took stock of your skills? Last week? Last year? Never? In addition to self-awareness you have got to be very good at promoting yourself. Not just having an up-to-date CV but I suggest everybody applies for a new job every two years even if they want to stay in their own job, to see how employable they are, to look at how up-to-date they are with self-promotion. Self promotion is not a one off thing, it's an everyday

occurrence. How good are you at promoting yourself in your own institution? Celebrating your successes? How good are you at more proactively creating and exploring new opportunities for yourself? My real question for the guidance profession is: Are you working in your own comfort zone or are you working within your clients comfort zone? Many people tend to work in their own comfort zone rather than stretching it out to their clients. So how good are you at really stretching yourself, getting out, and moving forward. How good are you at setting personal development actions for yourself? I don't want to see a show of hands, but I bet you very few of you have your own personal objectives for the next six months, written down, shared with a group or colleagues. How good are you at networking, developing that support system for information, guidance, advice, mentoring on your own career? How good are you at really making decisions, because more of us are going to have to make more decisions more frequently? How good are you at negotiating, dealing with the political side within an organisation, taking a more proactive approach to change? You know these last few days, all of us have to deal with some sort of change and uncertainty. How well have you coped if you are honest? Some people - natural, others of us, including me, we need support. How good are you at being more strategic, taking risks, managing risks? All of this is underpinned by the final thing – our self-confidence. I believe that we have to do far, far more work, not just on our own self confidence, but on instilling that in our students and our employees because if that is low, we have problems.

What we realised when we started doing this work with unemployed graduates, with underemployed individuals, people in jobs who are stuck in a rut, who are not happy, not using their skills was that there are two dimensions to this issue. One is about the sorts of self reliance skills I've got, all those skills I mentioned about how fit I am to manage my career. The other is crucial, which is about how motivated I am to do anything about it. So I can be extremely talented but not very motivated or highly motivated but not have the capability. We have found that there are different characters, different animals, that are around. Some with low levels of motivation and capability, they have problems with their attitude and their way of doing and their way of thinking. Other people may be very motivated but not have the capability. They have issues with their behaviour and approach. Then there are people that are highly capable but not motivated, they may have other commitments. The final people that we are talking about are the people with self-drive. Now from my own personal experience I would like to say no more than 5% or 10% of people I know are in that top right-hand box. Maybe you would have a different figure, but to get you thinking about the sorts of different characters we have designed a number of games for students to play with and if you think of this grid, there are a number of characters placed on it and you may be one of these characters. The first – I will just give you a few examples, a very capable person, on top, good at juggling things around. A number of people are very good at that, danger- we take on too much. Are you a bit like the hap hazard hamster? Do you ever feel you are running round in circles? Do you ever give yourself enough time to think more strategically about where your career is going? I see a lot of people like this in employment, the happy hippo, spending more time planning their holidays than their careers. Danger – to be employed is to be at risk, to be employable is to be secure. Hopefully we all have a mentor who is a wise owl, if not how can we find somebody who inspires you? Have you got somebody in your network that you really, really get inspired and motivated by? If not, do you need to find somebody else? I am afraid I see a lot of students who are the lazy asses, if you are a bit of one, I am certainly one, you can't do it by yourself. Again the theme here is that we need a helping hand. There are also crotchety camels, lots to offer but massive baggage. There are many of us that just don't want to change. But my favourite, and I am writing a book on this character, is the toxic toad. The toxic toad is the person in committee meetings who always has a problem, always builds walls, always sees the negative side of things. Are you a toxic toad? Do you know any toxic toads? Have you been sitting next to a toxic toad in the last few days? No I don't want to see a show of hands!

You go to a staff party and you all dress up as animals and you go and you have to spot who your colleagues are and we have more characters, I have only shown you a few. But my message is very clear. It is to do with our attitudes, our behaviour, our commitment and our drive. We need to understand more about that in addition to the skills we need. Bearing in mind that not many of us are true self-starters or have those entrepreneurial skills we recognise that there is a process we need to go through to develop them. It's almost like a rainbow. What we need to do is spend a lot more time developing case studies, materials, resources that raise awareness of the need for individuals to take control of their careers and their lives because many people are still blinkered. We need to help people

understand the benefits of doing this and in a language they understand, but also that they have to put something into the process, they cannot be spoon-fed anymore. The critical next stage is getting them to actually accept that they have got to take responsibility because most of us naturally go towards the walls rather than the windmills.

That is the crucial stage, but accepting I am going to have to do something is very different from actually committing to take action. Lots of people have grand ideas, very few turn them to action. I spoke at a teachers conference yesterday to a head of a primary school and she suddenly realised it doesn't stop. I've got to where I am, but I don't stop here, it's a continual life long process. That's our problem, and I think a problem with a lot of careers resources is the sustainability issue. Many of them are quick fix at transition without helping the individual sustain. What we realised through this model was that we develop books, we developed IT resources, we developed every game in the world. What happened? All that happened was the self starters, the top right hand boxes, the D's took it and ran, wonderful, excellent. But for the vast majority of people out there that wasn't enough. All that it did was take them a little further. The difference, the key is not the resource, is not the IT, but the role of the facilitator, the trainer, the manager of that process. My problem is many of those people may not have the right skills themselves, so how can they instil them into other people? I would like to just try this out on you, because one of your facilitators, one of your managers, one of your trainers is your boss. I would like you to rate how good your boss is at helping you manage your career. I have 10 questions, so if you would like to get paper and pen out. Thinking of your boss, each question I would like to give 10 marks to, so 10 he or she is excellent, 0 – no good. No negative scoring please.

Question number one: Does your boss really value your personal and career development and do they commit time to helping you? Give them a score out of 10 if they are very committed to your personal development, they give you the time and the resource and they value you in your own development. So just jot on the side if they value and commit you.

Question number two: How good is your boss at boosting your confidence? We all need confidence. Do they really make you feel good? Are they good at boosting your confidence? Ten out of ten if they are excellent at that.

Question three: Be honest, do they really encourage and motivate you? Score out of ten in terms of motivation. Do they really get you fired up? Do they ever ask you the question at an appraisal – what do you love doing? It's a simple question, but how many organisations ask that? What do you love doing, because the things you're good at and enjoy, you will do well.

Question number four: Does your boss provide you with a role model in terms of the way they have managed their career? Are they somebody you look up to? You think you would like to be in their position, they have done things in terms of managing their career that you can learn from in a positive way?

Question number five: Does your boss provide a role model in terms of their technical skills, their expertise and are they somebody you can learn from?

Question six: How good is your boss at giving you regular, up to date information, advice and guidance on new learning and career development opportunities? If they just have a head down approach, they have no time for you give them a low score. If they are excellent at helping you to tap into different sources, great.

Question number seven: How good are they at helping you access other networks? We recognise that networking is a key to the future. Do they help you develop into other networks outside your organisation and give you the time and opportunity to do so?. Many of you are here today so maybe you score your boss very highly on that.

Question number eight: Does your boss give you time and space to be more strategic in your thinking? Think a couple of moves ahead. Does your boss give you that ability to spot and seize opportunities maybe in a few years time?

Question number nine: How good is your boss at selling your success, promoting you? If they take all the glory for themselves score them lowly.

Question ten: Do they actively give you opportunities to develop career management skills, the sorts of self-reliance skills we talked about. Do they give you opportunities to reflect on your development, the lessons you've learned, to take and manage risks?

Score your boss up, how do they rate out of a 100?

- | | |
|----------------|---|
| Question one | - value and commit to your personal & career development. |
| Question two | - boost your confidence. |
| Question three | - give you motivation and encouragement. |
| Question four | - provide you with a role model for managing your career. |
| Question five | - provide you with a role model in terms of skills and expertise. |
| Question six | - give your information, advice and guidance. |
| Question seven | - give you access to networks. |
| Question eight | - encourage strategic thinking. |
| Question nine | - help you to promote yourself. |
| Question ten | - help you develop your career management skills. |

My main point is, how well does your boss score, but if somebody was scoring you on those ten items, whether it be a student who goes through one of your programmes, whether it be one of your colleagues or somebody who works for you, would you score ten out of ten on each of those? Where would you score highly and where would you score lowly. My argument is that a true entrepreneur doesn't need a boss. They will find things themselves, but many of us need those supporting skills. Just turn to your partner and maybe without telling them the actual score discuss how your boss scores and what do you need to do, because your boss is not going to change. What do you need to do is to address some of those issues in terms of managing your own career? Do you need to develop other networks? Do you need to manage in different ways? Any maybe you would like to discuss if somebody scored you, where would you be strong and where would you need to develop?

What I would like to do for the final ten minutes or so is take this issue a stage further. We in Liverpool recognise that the skills of the trainer are essential, that we need to equip the trainer with a tool kit to move forward. We also recognise that in our role as practitioners in the careers business we needed to change our own position, our role and develop new people but also new partnerships. What I have given you is a small document which we write every two years. We have a policy in our unit to try and reflect as a team, what we have learned and what we have achieved and what sort of impact we have made. I would like to briefly talk you through this document. We have found it very useful as a lobbying document to engage partners at a local, regional, national and international level, If you can have a quick look at this, sorry its in English. If I can help with any of the translation, I will be glad to. The premise is within this diagram here, the need for all of us to take control of our careers has changed, has grown more and more. However the support systems and structures are decreasing because more and more of us are working in small business, more and more of us are having less structured support.

So we are saying in the UK we have a national skills shortage. In career management entrepreneurial skills that is a BIG shortage. But many of the policy makers still do not understand, so we have to engage people with this document. We also recognise, if you would like to turn over to the next page, that to help people, to help individuals take control of their careers, we have to give them a structure, because they don't have the skills to be able to do it for themselves. The structure we have found is a five-stage process. It's a cycle. And it's made up of five questions. Where am I now? Where do I want to be? How am I going to get there? What support do I need and how am I going to keep on

improving? When we reviewed a lot of the practice in the UK, very few examples take people through that in a sustainable way. We have many workshops on CV's, many workshops on learning styles for special needs, but very few structured programmes that build in the improvement, the review. We are very weak on closing that loop, closing the cycle. Very good at some of the quick fixes, and some of the first couple of stages, but very poor at moving round the cycle. We realised very quickly that individuals couldn't do it either. On the right hand page you will see that to be entrepreneurial we have identified five key things an individual needs to have. One is the ability to step back and look objectively at what motivates them and what they actually have got to offer. Where are the walls, where are the windmills? The second is a new skill really, it is the ability to build a picture of where you are going. The skills, the first is stepping back, the second is actually rising above. (Steps on chair) I can now see over there, I can see the landscape over there. Helping individuals get away from the day to day role and look more strategically is something we need to do with our students, with our colleagues, with our employees. The third area is not about planning but about positioning. The fourth is about getting a helping hand, getting the support we need and the fifth is the review for continuous improvement.

I don't have time to discuss this in detail today but we have developed a programme which goes through each of those five stages and asks a number of questions and helps people answer those questions through card games, through animal exercises, through questionnaires etc. At each stage individuals log their answers into a progress file. What happens is people who have gone through the whole programme don't take a narrow perspective on their career, they take more of a holistic approach, they don't take a quick fix they take a sustainable approach. We have developed a tool kit for trainers as well. So we are now working with companies, with businesses, with careers advisers, giving them the tool kit, putting them through the process themselves first, so they are engaging in that cycle. Many of them, when we have spoken to them, have said we don't do it ourselves. We get them to actually engage in the questions and then give them the tool kit to customise and tailor. To give you some of the examples of the client groups that we have supported, we suddenly realise, these sorts of process are just as important for a woman entrepreneur, because the lady here says I never had a mirror to look at my own career, I never had somebody to bounce off, I now have a structure. It's just as important for school leavers, it's just as important for people in a job, feeling underemployed, under utilised. We have suddenly found for our own activity that there are a number of different markets and the same would be true for yourselves but more than you actually imagine.

We have also learned a very important message and that is captured on the next page here, namely that we cannot isolate our own activity in careers work from the rest of the economic growth cycle. On the left-hand page there you will see a cycle. It starts with life-long learning, employability, moves to business competitiveness and economic growth. The danger is we cocoon ourselves in the guidance profession. We box ourselves off and we don't engage with partners at other parts of that spectrum. There are a number of walls that block us particularly from engaging with small or medium sized businesses. What we have realised is that we almost need to create a human resource department for our local region, to help people manage and navigate their work within higher education but also within the business community and their locality. This document has been used to gain European, national, local and institutional support for that idea, and the idea really is that we create a brokerage, a career brokerage that links supply with demand. It doesn't just connect careers it also looks at work experience, skills development, business support and working with the small business community. Really to show people the impact not just on individuals but also on regions, businesses and communities is a challenge we all have.

We have actually looked at our last five years of work, looked at how we created nearly 1000 totally new jobs in small businesses, looked at how we supported the bottom line of business and what those sorts of needs were. We looked at how we invested and brought in new businesses to the region and this is the sort of thing we need more of, more information about the impacts and the growth of our work. So the big message here is that we have got to think broader than our own boxes, we have got to have entrepreneurial skills ourselves if we are expecting students to be more entrepreneurial. You have all got your golden tickets. You know you have got two choices, build walls or build windmills.

I am sorry I have rushed through all this but please, please, please think about what you are going to take from these last five days. What are you going to do to build windmills? Please don't build walls! If I can help at all my number and name is here and I will be around for the next session so thanks for listening and thanks for engaging.

Gerhart Rott

Peter thank you so much for this inspiring and impressive talk and for this exercise in entrepreneurship here with all of us. I think with the active participation I saw here that you made us go a step further ahead and showed us how very worthwhile and necessary this work is. Thank you so much.

Peter will be here a further five minutes or so for some questions.

Francis Danvers (Université de Lille 3)

Je vais vous poser ma question en Français, si vous le voulez bien.

Je souhaite d'abord vous remercier de cette conférence et de la qualité de communicateur qui est la vôtre. Etant donné que je suis universitaire, je veux prendre ce recul critique sur lequel vous vous êtes appuyé et pour lequel vous nous avez encouragé.

1^{ère} remarque: Le titre de votre conférence était "Entrepreneuriat et société moderne". La vraie question qui vous a intéressé est "Comment s'adapter au vent du changement". Je fais remarquer que, dans la vie courante, il y a des vents dominants et des vents dominés. La notion de vents est plus complexe que cela. J'ai bien compris que dans le temps imparti, il n'y avait pas place pour une analyse plus précise. Je suis perplexe: Vous parlez de moulins à vents; mais le moulin à vent est une technologie préindustrielle. Aujourd'hui, ce qui marche, ce sont les éoliennes. J'ai d'ailleurs remarqué que dans votre programme en anglais, on trouve l'image d'une éolienne; cela me rassure. Ma question est: L'image de l'éolienne sous-tend une technologie qui permet de penser au développement durable. A partir non pas du moulin à vents, technologie ancienne, mais de l'éolienne, comment penser la professionnalisation durable, dans le domaine de l'entrepreneuriat ?

2^{ème} remarque: : Dans votre discours, vous faites la confusion entre le succès dans les affaires et la réussite dans la vie. Je crois qu'à partir du moment où on fait appel aux convictions des gens, on mobilise des échelles de valeur, des conceptions de l'homme et de la société. Je pense qu'alors, il faut être modeste: toutes les convictions sont également respectables. Je crois profondément que l'entrepreneuriat est une valeur fondamentale essentielle pour notre avenir. Mais, moi, ce sur quoi je voudrais me battre, c'est déconnecter l'esprit d'entrepreneuriat, qui est une valeur positive, de l'idéologie libérale. On peut être libéral, mais on peut aussi se réclamer d'autres idéologies et il me paraît essentiel, en tant qu'universitaire travaillant dans un service public, de travailler à la déconnection entre la valorisation de l'esprit d'entrepreneuriat et l'idéologie libérale. Il existe d'autres idéologies qui peuvent passer alliance avec l'esprit d'entreprise.

3^{ème} remarque: Vous êtes revenu à plusieurs reprises sur la nécessité d'avoir la confiance en soi et vous avez dit à maintes reprises qu'une confiance en soi basse était problématique. En tant que psychologue, je serais plus nuancé; je pense qu'une haute confiance en soi peut conduire à l'autosuffisance, à l'égoïsme, à l'égoïsme et qu'au contraire, avoir un déficit identitaire, avoir un bas niveau de confiance en soi peut être un moteur extraordinaire pour rester vigilant.

4^{ème} remarque: Vous avez souvent fait l'éloge de la distance, de la prise de recul (en montant sur une chaise!). Curieusement, dans les questions que vous vous posez (ou alors, j'ai mal compris la traduction), il n'y a pas la notion de mémoire; vous avez longuement défendu l'idée de l'aile, du vautour, de l'avenir, mais il me semble important de savoir d'où on vient; garder la mémoire de sa trajectoire est quelque chose de stratégique pour penser le

changement. Autrement dit, est-ce que la méthodologie que vous nous proposez n'est pas trop amnésique des trajectoires socioindividuelles. Bref, je plaide pour les ailes du condor, mais aussi pour les racines.

Dernière remarque: Si, en fait, je voulais résumer votre propos, je dirais que vous faites l'éloge de la compétitivité, de l'employabilité, de la nécessité de tisser des liens, de l'apprentissage à vie. Vous ne dites rien, absolument rien sur le fait que l'entreprise peut être aussi citoyenne. Je reviens à ma question de départ, comment pouvez vous articuler les outils, les démarches, les méthodes relevant de l'entrepreneuriat avec d'autres sensibilités liées aux autres idéologies faisant place au développement durable et humain dans toutes ses dimensions ?

Peter Hawkins

I will try to answer the question. Firstly I am an engineer so I bow to your academic / psychology side. My response I suppose to your final comment, is the importance of reflection is very much what you said, helping people understand the pathway they have gone down where they are going. I think the challenge we all face is the language we use and connecting with all sorts of ideologies. What we try to do is take a questioning approach and although I haven't had time to talk about it today, to help people to help themselves. We have developed a thing called action thinking because many people act without thinking about the past and where they are going. Many people think without action so action thinking is a dynamic process and to help that, at each stage in the process we have asked or helped individuals ask a number of questions. For example at the first stage about stepping back we ask four questions: What makes you employable? What do you love? What are the things stopping you moving forward? Where have you come from et? At the second stage of the process, the rising above, we are asking people to think more strategically. An exercise we do with people is with pictures, helping them develop their own mosaic of pictures and ideas and then in groups to talk about what that story means. The questions we ask after that are how realistic and focused are they? Have you got other options? Does it link with other ideologies? The third set of questions are about how do I position myself. Am I being smart enough? Am I seizing opportunities? Am I creating the right stepping-stones? The fourth set of questions are about the support I need, about how other people can support me in this process, how I can connect with the community I work in. My philosophy is a third, a third, a third so I am not doing it for myself. I raise enough money to live and to give. For example, I have a contract with KPMG through which I earn £1000 for one day. Ten days work last year has paid for two holidays for 70 people to go away to Ireland and to the UK. These are adults with learning difficulties, so I am trying to look at the community angle, but that I agree is a personal thing. The final questions are critical. What we have found with a lot of the programmes we initially ran is, if you don't build in processes that sustain, that keep things going, you can fire people up and give them the energy but unless you give them the support structure to keep that process going, keep asking, keep that log and keep that recording going we are not going to move forward. I don't disagree with anything you have said, I just think there is a lot more we need to understand about the whole process. In terms of the windmills, your final thing, I haven't brought a copy of the book but we had big arguments with our designers: old windmills or new windmills on the pictures? What's interesting is the entrepreneur of the year in England this year was the Director of a windmills factory, a man who actually created the modern new windmills concept, so I think that the analogy has to be developed further. Thank you.

Gerhart Rott

Thanks to both of you for this very interesting and enlightening dialogue and for clarifying some further issues.

Preparing the students for entrepreneurship, what are the issues ?

Panel Discussion

This text includes English and French texts in the order in which it happened

Margaret Dane (FEDORA Président)

I would like to invite the members of our panel to say a little from their perspective on the theme of preparing students for entrepreneurship. A couple of our panel members are not here yet unfortunately so we will start with those who are here and I will make some introductions. The aim of this panel discussion is to present some different perspectives on the themes that we have been addressing during the course of this week including the issue of preparing our undergraduate students for entrepreneurship either in terms of setting up their own businesses or entrepreneurship within the context of employment. So, I would like to introduce the speakers who are here already and introduce the others later as they arrive. I start on my left. Peter Hawkins obviously does not need any introduction since he gave us such an inspiring speech as our keynote speaker this morning. I would like to ask him to speak about the work that he does in his Graduates into Employment Unit. Then Gerhart Rott, who again is familiar to all of you as Vice president of FEDORA. He is going to talk not about his day-to-day work in his student advisory service but about a particular project in relation to entrepreneurship in which his university is involved. I would then like to ask Kimberley del Gizzo, who many of you know came over specially from Boston in the United States, to present her perspective, just a few key points from a wider international perspective. Then Michel Menou who teaches at University Paris Sud, Orsay, on professional project modules during the first part of the first year degree. I invite all of you to speak for a short time about your own work, then we will open the floor to you for questions, comments and further discussion. I believe that another panel member has just arrived. Yves Morel who directs the incubator of Paris Sud and will speak a little about the incubator. Our last guest Joël Denervaux, will arrive later. He is responsible for developing modules which help prepare students for entrepreneurship.

Peter Hawkins (Liverpool University)

Yes I am conscious that I have not said much about what we actually do in terms of practical delivery. You have heard about the models and the processes but not the unit. There are 18 of us in the unit and we are totally self-funding which in itself brings a lot of entrepreneurial challenges. We have had to look at and bid for all sorts of funding opportunities and that's a skill we have developed over time but the focus of our work is helping individuals gain exposure to small businesses. Over the last 3 or 4 years we have supported around 1500 small businesses with a 6-month business improvement project that is conducted by an unemployed graduate or underemployed graduate. The key things we have learned from this are that we have to move away from a work experience model towards a business improvement model. Our work has to go further, away from the employability and career management focus to business support and developing business competitiveness. The sort of partnership we need to develop on a regional basis is far more with those sorts of people. The other lesson we have learned is "Practise what you preach". We ran a staff development 2-day workshop around the processes I talked about earlier and it was fascinating trying to look at a win / win situation in terms of building careers for ourselves but also being entrepreneurial in our business. The key thing that has come out for me as well, is the role of the mentor and the importance of having a coach, of having a mentor who can actually help you to develop the skills for entrepreneurship. That's the way we have gone. We have started to develop a tool kit for trainers and we have cascaded that on a national basis to other providers. What we are at, is really trying to develop entrepreneurship on a

local, regional and a national basis. The way we have done that is through mentoring, through work experience and through train the trainers programmed and packages. I will shut up there and pass on.

Gerhart Rott (Wuppertal University)

I would like to say a few words about a project which will start on 1 August. It is a project that we in North Rhine Westphalia call a Lighthouse Project and what you might call a Pilot Project, in interdisciplinary studies. I will explain a bit about the background because I think it might be interesting for the discussion about how to prepare entrepreneurs. In my University at Wuppertal we have quite well established entrepreneurship education in the context of the EXIST programme and my university was selected from others to do a project to develop entrepreneurship in the wider context together with companies and so on. For this project I have worked with 3 professors, one in engineering, one in economics and a German language teacher to develop a project where we want to encourage students to use their time more appropriately at university. The framework will be that students studying humanities will also have the opportunity to participate in economics courses and IT courses. The economists will receive some background in engineering and in humanities, communication and language reflection and the engineers will participate in economics and communication courses. We as a student service will provide special training units which support the ability of the students to reflect on and learn from this wider provision within the university and to appreciate how participating in these different courses will not only provide some additional subject knowledge but also help their understanding of economic and technological issues. That is one important part of it, of course. But it is also much more important that students become aware of how they can use the different kinds of knowledge to understand better how they learn and how they can transfer that knowledge from one area to another one. So this is trying to develop the self reliance skills Peter has just talked about, to see what is this time at the university, what it makes it important, how can students use it to their best advantage. We have also integrated work experience into this programme so that students can learn in different ways during the time they spend in their own subject. For example if somebody has to present a paper he may then see as it, as Peter said, as something which it is important in how he can promote himself and not just to deliver his paper to get some credits. This change in attitude to what is actually happening during the time at university involves reflecting on working experience and how it will develop the student as a person and provide a step towards fuller personal development and future career management.

Kimberley del Gizzo (Harvard University)

I know that I have had an opportunity to talk with a number of you in the workshop I ran the other day and I am delighted that I have a chance to speak informally to many others of you. Please excuse me if I repeat what you have heard, but I will just tell you a little bit about my background so that you will have a sense of where I am and where I am coming from. As Margaret said, I am from the US and I work at Harvard University. My title is Associate Director of Career Services and I work in the office of Career Services for the Faculty of Arts and Sciences at Harvard. We are very decentralised so we have a different careers office for the business school, the law school, the education school etc. The work that I do is with the college students who are considering graduate studies but I also work with graduate students and masters and in graduate school with PhD students. So to set the stage for you, it's important for you to understand the types of students I am typically working with. These students come from a variety of disciplines. We have 52 departments and programmes and they are across the natural sciences, social sciences and in the humanities. This notion of an entrepreneurial mindset is really very intriguing to me and also very important to me because of the work that my colleagues and I do at Harvard. I just want to begin by asking a couple of questions. How many of you have ever been in a position that you were not entirely happy with? Anybody, you can be honest. The rest of you have all had positions that you are thrilled with, yes? That's good thank you for your honesty! And how many of you were raised in an environment, which suggested that it really wasn't appropriate to boast about yourself, to talk about how great you were? Just 2 of us? Oh a few more and the rest of you were raised in an environment into which you were encouraged to talk about how terrific you are, talk about your skills. I tease you but only just, to give you a sense of how it is with the students we work with who come from a variety of cultures. About a third of our student population is international and when we talk about the students we work with often people think, of

course when you are working with the Asians students you must have difficulty with encouraging them to promote themselves. In fact often that is the case but it's also true across the board with all of our students. In fact it's the case with Americans as well, as boastful as we may seem sometimes, all of our students almost without exception, have difficulty talking about who they are and what they do well and in some cases what they want to do. I really encourage people to step a bit beyond their comfort zone and it's not something that comes naturally for most people. Because of that, I think we have some opportunity to encourage our students and to help them through this process. But I have to confess that in a workshop that I attended yesterday I was asked to do this and although I have been in this field for many years, it was very painful for me. It's not easy to do, to talk about what we do well. In fact it's not always easy to identify what we do well and then not only what we do well but amongst all of those things that we do well, what we enjoy doing and yet that's what we like our students to think about.

So keep that in mind as we are thinking about entrepreneurship - and I am thinking much more globally than just thinking about entrepreneurial endeavours in business or industry but thinking about how we operate in the world, and the entrepreneurial mindset. I will tell you that I have the privilege of working with students at Harvard who tend to be very bright, very talented people. They tend to be a bit older than the college students I worked with in years past and in fact their average age is probably 35 to 40 years old for the graduate students. So they are more mature in many ways, and yet many of them really have an incredible sense of the "impostor phenomenon". I don't know if that is something that's discussed here, but many of our graduate students do. Well, they don't like to say it out loud to their cohort, to their colleagues and certainly not to their advisors. They do come into our offices and talk about the fact that they feel that they do not belong here (amongst all these really bright people) and fear that one of these days somebody is going to find them out and then they are going to be asked to leave. I am just struck by the number of people who feel that way and yet I work with some of the most talented people in the States or in the world. So it's amazing that this is so rampant. I think, what it tells me as a career counsellor, is that it's not an unusual phenomenon and it's not easy for us to promote ourselves. It's not easy I think for us to take responsibility for our own future and in fact in the States at least, I can't ever remember a time at some point in our education when I or any of my friends or colleagues had someone sit us down and said "OK, now you are responsible for your future, let's talk about how you are going to make good decisions". When people enter college from high school rarely does one sit down with someone and have someone ask them about how they are making decisions about where they are going to go or what they are going to do unless they come into a careers office. It doesn't happen very often when people are in college either but now fortunately with the careers support that students are getting, they are having those questions formed and they are being given information to help them through this process.

I think it is critically important that we recognise this sense of insecurity and that we help people to take ownership of and responsibility for their futures, that we give them skills to allow them to do that and that we mentor them and coach them through the process. We also need to encourage them to expand their networks significantly and hopefully to identify mentors and coaches along the way that will help them to develop, so we have I think a great responsibility with the people with whom we work. It is a privilege but it's also a significant challenge and yet ultimately they themselves are responsible for taking the next steps. As I mentioned in my workshop the other day, if we are able to instil the notion of taking responsibility and help them to develop the skills to make good decisions along the way as they transfer from one position to another or one industry to another, throughout their career development they will be able to make successful transitions and hopefully look back years from now and think, "Yes, this has been a good life and I have done the right things and it's been fun along the journey." Thank you.

Michel Menou (Université Paris-Sud)

Je vais présenter le travail que l'on fait à l'université de Paris Sud avec les étudiants de premier cycle universitaire qui arrivent du lycée. Je suis enseignant de Chimie, donc je ne suis pas un professionnel du domaine et j'ai dû moi-même faire une démarche volontaire pour m'intéresser aux questions

d'orientation des étudiants et au travail qu'ils doivent faire pour formuler leur choix d'orientation. Il est important de faire comprendre aux étudiants de premier cycle, que le temps de formation est une préparation à l'insertion professionnelle. Il est vrai que, venant du lycée, ils en sont aux premières étapes de ce travail. Le "projet professionnel" a pour but de les rendre acteurs de leurs choix d'orientation. L'idée du "projet professionnel" avait été lancée à l'Université Claude Bernard à Lyon en 1984 et, lors de votre dernier congrès à Edimbourg, ce travail a été présenté par Dominique Gilles. Une association "Trouver et créer" regroupe professionnels de l'orientation et enseignants qui ont trouvé l'idée intéressante et ont souhaité proposer ce module à d'autres universités. Un autre paramètre qui a contribué au succès de cet enseignement est l'intérêt porté à cette démarche par l'UIMM (Union des industries Métallurgiques et Minières), syndicat patronal de la métallurgie. Cette organisation a trouvé intéressante la démarche de sensibilisation des jeunes étudiants à cette réflexion sur leur future insertion et dans un premier temps sur leur projet professionnel et c'est eux qui ont pris contact avec les différentes universités pour promouvoir ce travail et permettre son développement. En ce qui concerne notre université, le module "Projet professionnel" a été mis en place en 1997 et 2400 étudiants suivent cet enseignement avec un fonctionnement parallèle pour des étudiants d'origine variée puisque des étudiants de sciences, de sport, sciences économiques, droit et même pharmacie sont impliqués.

Deux mots sur le **travail demandé à ces étudiants** : Dès leur arrivée à l'université, il leur est demandé de formuler leur projet professionnel et de répondre à la question suivante : « Quel est le thème que je porte en moi pour mes futurs projets ? ». Ce thème n'engage pas pour le futur ; mais, au moment de l'entrée à l'université, c'est celui que l'étudiant privilégie. On forme ensuite des équipes de 4 à 6 étudiants ayant choisi le même thème.

La première phase du travail est une phase d'exploration du thème qui se fera sous deux formes :

Tout d'abord, une recherche documentaire. qui consiste, pour le thème choisi de repérer les formations permettant l'accès de cette profession, les entreprises qui recrutent, ainsi que les chiffres de l'emploi.

Ensuite, un travail de terrain où les étudiants doivent rencontrer les professionnels du domaine. Pour ce faire, ils doivent identifier les professionnels, les contacter et les rencontrer.

Ce travail d'exploration est concrétisé dans un deuxième temps, par un document de synthèse. Même si le travail est un travail de groupe, ce document de synthèse doit être un document individuel car le projet professionnel a un côté personnel et, à partir d'un matériel commun aux étudiants d'un groupe, la réponse de chacun d'eux aux questions posées peut être assez différente. Dans leur document de synthèse, les étudiants doivent répondre à la question suivante : "Quelles étaient mes questions au départ et, à l'issue du travail effectué, comment a évolué mon projet ?" On leur demande également lors d'une soutenance orale et en présentant un poster, de communiquer, de présenter le travail réalisé et les découvertes faites.

L'objectif pédagogique de ce module est un travail d'accompagnement de l'étudiant destiné à l'aider à se mettre en route par rapport à son projet professionnel et personnel. Certains d'entre eux ont déjà fait ce travail, et ont déjà formulé leur choix ; ceux pour lesquels l'université est l'étape qui suit le collège et le lycée se trouvent à l'université sans réflexion préalable ; ils n'ont souvent pas démarré cette démarche. Les mettre en route sur ce chemin est un point important. Il en résulte une hétérogénéité des étudiants présents entre ceux qui ont déjà bien réfléchi sur cette démarche et ceux qui ne l'ont pas fait. Les amener à confronter leur projet avec le monde du travail, et tout particulièrement à rencontrer le monde industriel, est une étape importante qui est fort appréciée. Dans les documents d'évaluation que nous faisons auprès d'eux, c'est cet aspect de rencontre avec le concret qui rencontre leur adhésion. Un autre point positif est l'occasion de développer une attitude critique par rapport aux informations reçues de différentes sources, les documents écrits et les informations obtenues auprès des professionnels rencontrés. Il s'agit de les engager dans une démarche active par rapport à leur projet, par rapport aux choix qu'ils auront à faire et donc de faciliter une prise de décision.

Quelques éléments d'évaluation :

A la question: " Est-ce que le « projet professionnel » a modifié ou précisé mon projet ?", 30% d'entre eux estiment que le projet professionnel a modifié leur projet, et 50% d'entre eux, disent l'avoir précisé.

Le module se termine par la **présentation de posters** devant un jury composé de professionnels qui choisissent ceux qui sont, selon eux, le (ou les) meilleurs. L'intérêt de cette manifestation est de permettre la rencontre des professionnels et des étudiants de première année d'université. Souvent le réflexe de ces étudiants est de penser qu'ils n'intéressent pas beaucoup des industriels, puisque que le premier cycle est l'étape initiale de leur cursus. Lors de cette rencontre ils découvrent le fait que la démarche qu'ils ont suivie, démarche comportant une phase d'exploration puis de synthèse, est une démarche importante pour ces professionnels. Ceci conduit à un débat fructueux entre les étudiants et les professionnels.

En résumé, notre démarche est une l'étape préalable au cours de laquelle l'étudiant travaille à expliciter son projet professionnel ce qui n'est pas quelque chose de simple, et confronte cette idée à la réalité du terrain. Chemin faisant, il prend conscience de ses possibilités.

Yves Morel (Ile de France Sud Incubation)

Je dirige ce que nous appelons un incubateur. En France, un incubateur travaille très en amont et vise à créer des entreprises. Je distingue le concept français du concept anglo-saxon : les entreprises qui sont dans l'incubateur n'ont pas encore d'activité économique car notre activité consiste à créer la société. On part d'un côté, d'une idée, c'est à dire un couple "Produit / Marché", de l'autre côté on vise une entreprise de qualité, c'est à dire une entreprise pérenne (il ne sert à rien de créer une entreprise qui s'arrêterait au bout de quelques années), qui comme toute entreprise, créera de l'emploi et de la richesse, c'est à dire de la valeur ajoutée.

Pour passer de l'idée à l'entreprise pérenne, nous devons travailler essentiellement dans trois domaines :

Le domaine technique, scientifique. Tout le monde y pense. Il est évident que pour pouvoir vendre quelque chose, il faut que le "quelque chose" existe. Le premier travail que nous avons à faire est du domaine technique ; il s'agit de fait de passer d'une idée à la validation au laboratoire, puis à un démonstrateur, puis à un prototype. De jour en jour la technique doit avancer.

L'aspect économique constitue le gros du travail dans les incubateurs. Effectivement il faut savoir tout de suite s'il existe un marché, puis quelle part du marché on va pouvoir prendre, et enfin, comment on va accéder au marché. Ce sont les problèmes du marketing, du commercial.

De plus, nous avons à nous plonger dans les **problèmes juridiques** de création de société et faire toute l'ingénierie financière qui doit conduire à un business plan crédible face à un investisseur. Il est évident que pour créer une société, certes il faut un projet mais il faut aussi de l'argent. En général, on va chercher l'argent ailleurs, auprès des investisseurs qui capitalisent les sociétés. Ceux ci gens prennent des risques énormes et il faut les convaincre que tout a bien été étudié avant de lancer la société.

En général les créateurs sont conscients de l'importance des deux derniers points mais souvent, ils en sous-estiment la difficulté. Trop imprégnés par la technique, ils pensent que, seule, la technique est importante. Ce n'est pas vrai, la technique est la condition nécessaire, elle n'est en aucun cas suffisante. Pour créer une bonne société, une société pérenne, l'important est le facteur économique et juridique.

En général, les créateurs sont des diplômés de haut niveau qui se croient capables de tout faire. Ce n'est pas vrai! Le métier de chef d'entreprise est un métier totalement différent, c'est très important pour nous de travailler sur ce troisième volet, le volet humain. Un scientifique ne sera pas forcément à sa place quand il prendra la tête de la société à laquelle il a pensé. Nous sommes là pour lui donner tous les moyens de devenir un patron d'entreprise, mais aussi pour lui montrer les difficultés auxquelles il sera confronté et lui montrer qu'il s'agit d'un métier totalement différent de celui qu'il a exercé jusqu'alors et qui ne l'intéresse peut-être pas. Dans ce cas, on va l'aider à trouver des compétences complémentaires autour de lui pour créer des équipes optimisées au niveau de la

direction de la société. Souvent cet aspect là est négligé par les créateurs, et c'est très... très dommage car une société qui est mal dirigée a peu de chances de durer longtemps.

Ainsi, dans l'incubateur, notre métier se résume essentiellement aux trois mots suivants: **la technique, l'économie, l'équipe.**

Mais je pense aussi que l'on a aussi un autre métier qu'il ne faut pas négliger, à savoir, tout ce qui touche à l'émergence des projets et donc à un travail d'accompagnement au sein des laboratoires pour discuter avec les scientifiques qui peuvent n'avoir qu'une idée et ne pas voir comment on peut passer de cette idée à un projet de création d'entreprise. Une partie de notre métier est d'aider tous ceux qui ont des idées à les concrétiser et à transformer l'idée en un projet un peu plus crédible.

Le problème, en France, est que l'on a manqué d'entrepreneurs. La culture entrepreneuriale est quelque chose de fondamental. Quand on entre à l'université ou dans une autre formation, on pense bien évidemment à devenir salarié dans le privé, à devenir chercheur dans le public. Je pense que l'on doit également maintenant penser à créer son entreprise. Il s'agit de donner à tous les étudiants qui arrivent à l'université cette culture entrepreneuriale, leur montrer tout l'intérêt qu'ils pourraient trouver à s'épanouir dans une création d'entreprise. On commence à voir poindre cela ; je pense qu'il faut absolument insister là dessus, la culture entrepreneuriale doit devenir une de nos préoccupations. Nous devons la développer.

Joël Denervaux (Centre de Recherches et d'études des Chefs d'entreprise)

J'animais ce matin pour le compte d'une grande école de commerce une intervention dont le thème rejoint le sujet de vos travaux. En fait, il s'agissait d'expliquer à de nouveaux diplômés le type de démarches à entreprendre pour valoriser leur diplôme, soit recherche d'emploi au travers des services habituels de recherche d'emploi, soit entrepreneuriat individuel. La grande école dont je vous parle est HEC. Les étudiants durant leur cursus sont sensibilisés à la réalité des entreprises et à l'intérêt qu'il y a à être soit cadre à forte responsabilité dans une entreprise soit à être entrepreneur soi même.

Les questions qui m'ont été posées étaient essentiellement tournées sur la création d'entreprise, les aides éventuelles, les modalités pratiques autant de sujets pour lesquels je n'ai pas de compétence.

L'entrepreneuriat, pour nous à HEC, au CRC où nous sommes plutôt dispensateurs de formation, est quelque chose qui nous tient à cœur. Nous sommes très satisfaits de voir venir dans notre séminaire des étudiants qui, au delà de la valorisation d'un diplôme dans une entreprise, cherchent à élargir leur champ et s'intéressent à d'autres formes d'entrée dans la vie active. Notre véritable vocation consiste à les aider à réfléchir, non pas sur le projet qui, au moment où ils arrivent à HEC est le leur, mais sur les moyens de porter ce projet notamment en terme d'attention à porter aux grandes fonctions qui sont incontournables pour réussir son entreprise. Souvent, on voit des entrepreneurs initier un projet et être dans la logique même de la conception du projet mais oublier totalement qu'à côté du projet il y a de la finance nécessaire, de la comptabilité indispensable, de la responsabilité sociale ainsi que d'autres grandes fonctions qui sont indispensables et qui faute d'être totalement intégrées dans la réflexion relative au projet peut amener à son échec. Nous sommes tout à fait attentifs à ces personnes qui sont porteurs d'un projet et ont décidé de se lancer dans la création d'entreprises. Pour nous, avant tout, l'entrepreneuriat est une prise de risque, c'est s'affronter à des difficultés en toute connaissance de cause, assumer les risques qui vont être pris et aller jusqu'au bout de cette démarche afin, quand c'est possible, de valider l'aspect entrepreneurial de cette démarche. Souvent, dans nos séminaires, des jeunes créateurs d'entreprise viennent témoigner de leur propre prise de risque, de leur propre démarche. Nous ressentons toujours une grande émotion lorsqu'on constate que les gens ont su faire mûrir leur projet, dépasser le stade de maturation et entrer dans la logique de l'entrepreneuriat qui est une logique difficilement formalisable.

Notre action consiste plutôt à les accompagner dans la phase de développement du projet, nous n'intervenons pas sur les aspects financiers ni sur les idées mais nous développons des méthodes et des attitudes permettant à chaque candidat entrepreneur de ne pas oublier l'une des parties essentielles de la réussite de son projet et donc de cette démarche entrepreneuriale.

Margaret Dane

That was actually a very interesting last contribution, not just about knowing, but about living and feeling, about hearts as well as minds. I feel that we have almost come full circle because some of the things you referred to were covered in an earlier session in this conference by another colleague from PriceWaterhouseCoopers who was talking about the actual business skills and the business knowledge that is needed to succeed. We have got lots of food for thoughts here, lots of different perspectives from different countries and from different starting points. I think it's over to you now. You have got lots of expertise represented up here on the platform so ask your questions and make your own comments.

Francis Danvers (Université de Lille 3)

Ma question s'adresse plus particulièrement à Yves Morel qui m'a permis de mieux comprendre la fonction d'un incubateur. Je travaille dans une université de lettres, art et Sciences humaines et ma question est de savoir dans quelle mesure vous pensez qu'un incubateur a une quelconque utilité dans le cadre d'une université qui, par essence, n'est pas reliée aux enjeux économiques. J'aimerais le point de vue du professionnel que vous êtes parce qu'effectivement la création d'entreprise est dans l'air du temps et un certain nombre de philosophes connus (tel, par exemple, Alain Etchegoyen, très souvent cité sur le plan médiatique, ancien conseiller d'un Ministre de l'Education Nationale et auteur d'un ouvrage intitulé, *le capital lettres*), défendent l'idée que le « capital lettres » peut être utile à l'entreprise. Ce qui m'intéresse, compte tenu de votre fonction, c'est le point de vue de celui qui est en prise aux réalités des entreprises. Est-ce que de votre point de vue cela a un sens de faire appel à un incubateur d'entreprise et comment peut-il fonctionner dans une université de lettres arts et sciences humaines où les étudiants ne sont pas « boostés » comme on l'a dit précédemment, vers la réalité de l'emploi, au moins au premier abord ?

Une toute petite remarque sur un plan méthodologique, comme c'est une université d'été, et c'est une suggestion que je fais aux organisateurs, ce serait de nous proposer avant la fin de la journée une bibliographie, notamment en français, qui nous permettrait au cours de cet été de prolonger notre réflexion sur la démarche d'entrepreneuriat.

Yves Morel

Effectivement, les projets de création d'entreprise dont je m'occupe sont essentiellement des projets à contenu technologiques donc scientifiques. Je rêve d'avoir un jour un projet qui ne soit pas d'origine scientifique, pourquoi pas dans une université de lettres. Je pense que l'incubateur aurait la même utilité dans ce cas là que dans un projet d'origine scientifique. Le problème est trouver matière à créer une entreprise à partir d'une université de lettres. Des ergonomes et des sociologues voulaient ensemble créer une entreprise ; je pense que j'aurai très bien pu les aider. Si un jour un tel sujet m'arrivait, je serais ravi de travailler avec les candidats à la création d'une telle entreprise. Quand on crée une entreprise, je vous le disais tout à l'heure, la technique est bien peu de choses ; ce qui compte est de répondre aux questions suivantes : « Comment accéder au marché auquel on veut s'adresser ? », « Comment résoudre tous les problèmes juridiques et autres ? » « Comment trouver à financer l'entreprise et assurer un réel débouché économique ? ». Donc que ce soit à partir d'un sujet de lettres ou de sciences le problème de création d'entreprise est exactement le même. L'incubateur est surtout un réseau, c'est lui qui va permettre d'aller beaucoup plus vite parce que nous connaissons toutes les subtilités permettant d'obtenir une subvention, de trouver des capitaux, d'avoir accès à des tas d'informations. J'ai créé ma propre entreprise, il y a plus de dix ans et, à l'époque, au moins en France, on ne parlait pas d'incubateurs. Quand je pense combien j'ai eu de la peine pour créer celle-ci et quand je vois ce que les incubateurs offrent, c'est le rêve, les choses vont beaucoup plus vite. A partir d'un point central, on sait tout de suite aiguiller les personnes vers les contacts dont ils auront besoin.

Joël Denervaux

Puis-je apporter un complément ? L'un des étudiants du groupe que j'animais ce matin, était porteur d'un projet d'entreprise faisant de la recherche en pédagogie sur la base des nouvelles technologies.

Ce thème n'est pas du tout technique et plutôt tourné vers les sciences sociales (lors de la formation, relation à l'homme dans un certain nombre de cas de figures). J'ai donné ce matin les coordonnées d'Yves Morel à cette personne.

Françoise Parrot (Université de la Rochelle)

Je souhaite apporter un témoignage au professeur de Lille 3 : A l'université de La Rochelle, nous avons un incubateur dans lequel deux littéraires sont en train de monter leur entreprise. Je ne peux pas vous donner plus de précisions.

Kate Dodd (Warwick university)

I have a similar contribution on the same lines which is really about something I find quite concerning in the public policy that is really supporting enterprise primarily in the science and technology area. I don't doubt for a moment that's immensely important but I think that we ignore the needs of entrepreneurs working in the cultural industries at our peril. Anyone in Britain asked to draw up a list of entrepreneurs, British entrepreneurs, would probably have Richard Branson, creator of the Virgin group as their first example and of course he is an example of somebody whose enterprise started in recording pop music. When I look at the statistics of the number of graduates from our university who have gone directly into their own business or directly into self employment, it surprised me and others that the predominance was those coming from the arts and social studies backgrounds. The details of their occupations are in things like script writing, web based trading business, performance as a small group performers working in co-operatives, as individual performers, freelance writers, these are an important part of our economy. Particularly in the industrialised world industrial progression is very important but our cultural industries (in Britain what we call Cool Britannia) form a very important internal market. There are also very important external markets so I really do want to raise the profile of enterprise within the cultural industries and the importance of incubators such as those Yves Morel described and others that exist in other places and to increase understanding that there is also a need to cultivate entrepreneurs who have a non-scientific background.

Margaret Dane

I would like to support that because in the research I did for the workshop I led here about the employment sectors where entrepreneurship is important the arts, performing arts, creative arts etc actually came out very highly. They are not areas where you create big businesses but if you look at the total number of people involved, it is very significant and in the areas of art or design in particular, 80% of people are actually freelance and self employed. So I will support that these people would need training in entrepreneurial and business skills because often they are very creative people but they lack the business skills to make it work and to provide them with a living.

Yannick Achard (Université de Strasbourg 2)

Notre université est également une université de lettres et sciences humaines. Vous rêviez de projets, j'en vois deux ou trois qui sont nés chez nous et se sont maintenant transformés en véritables entreprises. L'entrepreneuriat est, parmi d'autres, une piste possible d'emploi pour nos étudiants. Nous menons actuellement une réflexion sur la mise en place d'un diplôme d'université et un incubateur. On aimerait voir comment cela pourrait fonctionner. Si je vous donne deux exemples, pourriez vous nous dire concrètement, de façon précise et pragmatique, quels services seront offerts par l'incubateur. Par exemple, on parlait de musique ; un groupe de philosophes, littéraires et sociologues, après avoir tourné pendant deux ans sur des fonds propres vient de signer chez Universal, qui est la grande maison à l'heure actuelle. Un jeune homme de la filière STAPS (Sport) vient de créer une structure proposant des exercices physiques aux personnes du 3^{ème} voire du 4^{ème} âge. Un autre jeune a envisagé de mettre des autocollants publicitaires sur les voitures. Dans le secteur tertiaire, de nombreuses créations d'entreprises vont être possibles à l'avenir. Si nous avons de nombreux étudiants avec des idées qui, certes parfois, doivent être approfondies, explorées et validées, que peut offrir un incubateur ? A partir de là comment pouvons-nous fonctionner ?

Yves Morel

Le problème est peut-être un peu différent en ce qui concerne le premier cas que vous avez cité parce que je pense que si le groupe a signé avec Universal, son problème est résolu. Mais, dans tous les cas de figure, ma contribution sera de voir avec le créateur si réellement, il a bien pris conscience du marché qui existe pour ce qu'il veut faire. Il a peut-être simplement une idée ; or en ce qui concerne le marché, il faut voir exactement quel est-il ; quand on l'a identifié, il faut absolument voir la partie de ce marché que l'on va pouvoir capter ; ensuite il va falloir mettre en place le marketing nécessaire pour prendre cette part de marché et puis bien évidemment prendre en compte tous les problèmes liés à la création d'entreprise. Pour vivre une entreprise doit être structurée, pour vendre quelque chose, il doit avoir des équipes commerciales plus ou moins élaborées en fonction de la taille de l'entreprise. Que ce soit un projet d'origine scientifique ou littéraire, tout cela représente exactement le même travail. Au sein de l'incubateur les activités scientifiques occupent peu de place et l'activité s'applique aussi bien à des projets d'origine scientifiques que non scientifiques.

J'insiste sur le fait qu'au sein de l'incubateur, pour voir comment la société va vivre, il faut étudier, le marché, l'ingénierie financière, savoir quels capitaux seront nécessaires, explorer les problèmes de trésorerie qu'elle va rencontrer ultérieurement, déterminer le nombre de salariés, leurs spécialités, la composition de l'équipe commerciale, prendre en compte les problèmes juridiques.

Comment travaille-t-on dans les incubateurs ? Selon les incubateurs, la façon de travailler est un peu différente. Je pense que vous avez compris que dans un incubateur, on a besoin de beaucoup de compétences et de compétences très variées. Dans notre incubateur nous avons fait le choix d'avoir une structure minimale en matière de personnel. Nous avons simplement deux personnes qui font, simultanément, le coaching global de douze à quinze projets ; c'est à dire que pour tous les domaines très pointus, nous faisons appel à des prestataires de service extérieurs ; si nous sommes en présence d'un business plan que les deux personnes de l'incubateur sont capables de monter, nous le faisons, si nous sentons que c'est un problème trop pointu, on se fera aider par un spécialiste du domaine. Il en est de même pour les études de marché que nous ne faisons pas nous-mêmes, nous confions ces études à un cabinet spécialisé dans le domaine considéré. Ce ne sera pas le même cabinet qui sera capable de faire l'étude de marché d'un projet scientifique (et ils sont très variés suivant le domaine) ou d'un projet littéraire. Il en est de même pour l'étude de la concurrence. Nous préférons faire appel à des prestations extérieures. Néanmoins, nous offrons la logistique, c'est à dire que les porteurs de projet sont installés à l'incubateur, ils y ont un bureau, un ordinateur et nous envisageons de leur donner des locaux techniques. Nous les réunissons très régulièrement, au moins chaque lundi pour faire le bilan de ce qui a été fait la semaine précédente et prévoir l'activité de la semaine qui commence. Personnellement je ne fais pas de différence concernant le nombre de réunions entre ce que je fais à l'incubateur et ce que je faisais dans mon groupe de recherche. Il s'agit d'un coaching très rapproché avec le porteur de projet. C'est du conseil de l'aide et des introductions auprès de tous les gens dont le créateur peut avoir besoin

Tarik Khala (Faculté des Sciences de Marrakech)

Monsieur Morel, toujours une question concernant les incubateurs, vous avez parlé du côté technique, économique, juridique est qu'il n'y a pas un plafond pour le financement ?

Yves Morel

Pour les projets dont je m'occupe jusqu'à présent, qui sont, je le répète, des projets innovants à assez fort potentiel, à contenu scientifique très important, on est tous d'accord pour dire qu'avant que les investisseurs ne s'intéressent à la société pour la capitaliser il faut avoir mis sur la table de l'ordre de l'ordre de un, deux, trois millions de francs. Ce chiffre peut varier suivant le secteur d'activité et l'état d'avancement du projet, il est bien évident qu'à l'incubateur nous n'avons pas ce budget, c'est en additionnant de petites sommes d'origines diverses que l'on arrive à démarrer : dans mon incubateur nous avons, jusqu'à maintenant, la particularité de traiter des projets venant des laboratoires des membres de l'incubateur (Université de Paris Sud, Commissariat à l'Energie Atomique, Le Centre National de la Recherche Scientifique et un industriel, le groupe EADS). Tous les projets émanent de nos laboratoires, ceci signifie que toute la technique, toute la science a déjà été financée par le laboratoire. En général, l'organisme dont dépend le laboratoire conserve la propriété industrielle ; c'est

à dire qu'il a payé les brevets, voire même leurs extensions à l'étranger. Avec mon budget propre de l'incubateur, je suis capable de mettre 400 à 500 KF par projet, ce qui permet de lancer les études de marché, les questions juridiques et d'apporter le coaching global du projet. En additionnant ce qu'ont mis les laboratoires en technique, en propriété industrielle, ce que je peux mettre, ce que mettent des organismes qui sont capables de financer des projets innovants, comme l'ANVAR en France, on arrive à trouver les premiers millions de finance dont on a besoin et que personne ne veut mettre car à ce stade de développement les investisseurs ne veulent pas prendre de risque. Le budget de l'incubateur est inférieur à 5 MF par an et je voudrais sortir entre dix et douze projets par an, cela fait une moyenne de 400 KF par projet.

Margaret Dane

Thank you. Can I perhaps invite some questions to our other panel members as well, focussing on the training for entrepreneurship because that has been a theme during the last few days. What can we do in our jobs to help our students and graduates develop the spirit of enterprise, the entrepreneurial mind? I would like to invite a question on that topic.

Francis Danvers

Je voudrais poser une petite question, toujours à Yves Morel. Je voudrais voir les conséquences du travail de sensibilisation qui est fait dans les premières années universitaires ou ultérieurement pour les doctorants et docteurs. Dans les projets que vous soutenez chaque année, quelle est la proportion d'étudiants qui sont diplômés depuis moins de quatre ou cinq ans?

Yves Morel

J'ai malheureusement une expérience très réduite car l'incubateur a démarré il y a un an seulement. Aujourd'hui douze projets sont arrivés à l'incubateur. Sur ces douze porteurs de projets, deux sont diplômés depuis moins de deux ans. Ces statistiques, sur un petit nombre ne veulent pas dire grand chose. Tous les autres ont un passé dans le domaine de la recherche publique de l'ordre de dix, douze, quinze ans, voire plus. Les porteurs de projet, aujourd'hui, chez moi, sont assez âgés. Je le regrette, c'est pour cette raison que je m'implique de plus en plus dans les doctorales, et dans toutes les manifestations où on peut convaincre les jeunes de créer leur entreprise. Malheureusement à ce jour, j'en ai peu. Mais, un des plus beaux projets est porté par un docteur qui a passé sa thèse l'année dernière.

Peter Hawkins

I think the discussion has a number of challenges because on one end of the spectrum we have a very resource intensive recruitment process for only 10, 20 or 30 companies. Most of our institutions have thousands of students and in a way we need to adopt a process a bit like the one we've seen here, a flow which almost distils this thinking from day one of the university experience and help students to recognise the skills and develop the mindset of an entrepreneur. More importantly, we need to create more opportunities to develop those skills while they are in the education process. I think one opportunity that we've missed totally is voluntary work and the social entrepreneurial aspect of things. Because for many people it's a risk to start up a business, we need to create low risk situations for people to develop these skills where, if they fail, there is not a huge problem but if there are millions of francs invested in it, then there is obviously a much higher risk factor. So I think what we need to do is find more creative ways of getting larger numbers of people through the process. Voluntary work is one, we've heard group based work is another, and we also need to provide more role models by getting entrepreneurs back into the higher education institutions. A lot of the companies in the UK that we deal with are multinational businesses. These do not represent the one person micro company type areas, so we need more case studies, but at the end of the day, we need more of this integrated within the curriculum.

That's a fundamental cultural change, away from research, more towards teaching and learning and in the UK, we've now the government setting up what they are calling a third arm of funding for this whole sort of interface between higher education and business.

Margaret Dane

Perhaps, I can add two things: one is again, that in the UK we collect data each year about where our graduates go at the end of each output, after they have finished their degrees. The proportion of students going into their own business is rising. Many of them, from my own University, are going into areas like computing, art and design, small retail businesses etc. So we do know that younger people who are doing it as well. One of the research projects I looked at for my workshop indicated that the average age of the entrepreneurs that they helped is 22 years old, which is very young; but we also know that a very high proportion of those businesses did not succeed in the long term.

The other comment I wanted to make was one that Val Butchers made in her workshop. Unfortunately she is no longer here, but she talked about projects helping people still in school to develop skills by running a small business but in a low risk situation. They get some money to start to develop an idea but there is no stigma attached to failure if it does not work. The aim of the project is not to start businesses but to help people to learn the skills and the processes involved. So I would support what Peter has said, there have to be ways of giving people the chance to learn entrepreneurial skills without their livelihoods being immediately at stake.

Daan Vunderink (Amsterdam University)

Can I put forward a more philosophical question which has to do with attitudes. I think that in universities we teach our students to exclude risks actually. It is all about knowledge and research and about accurate statements and risks are excluded as much as possible in our university education systems. But still now we want them to take risks if they are entrepreneurs. So that is an attitude that clashes a bit, I think. I am a bit puzzled by how to deal with those sorts of different attitudes. Of course one can say “ Well, that’s life, we have to take risks and life is risky” but I think there is more to say to that. Do you share this vision that it is a clash of attitudes and how can we deal with it in a proper way?

Gerhart Rott

I would quite agree with this. In Germany right now we have a change within the Bologna process where we are changing our courses. We used to have diploma courses which ran for quite some time which were much more open. Now with the Bologna process we changed them to a BA / MA structure which is much more rigid and people have less time to finish their course. The aim is to have a kind of British model where you have clear structure for how long you should stay at university. So in a way we had much more risk taking in our older system. This modern system is now sold as something very new and very efficient but it is taking away some of the risks we had in our institutional ways before. I think one has to reflect this tension. On the one hand we say be flexible and we want them to have this kind of entrepreneurial mindset but on the other hand we are providing a more structured way so we are reducing the opportunities to try out their own thinking and their own actions.

Peter Hawkins

I think there is also a difference between taking risks and managing risks. I believe the lesson we can learn as individuals from business incubation is the process one has to go through to manage and minimise the risks. A lot of that is about understanding the market place, understanding what you have offer, looking at the financial business benefits and ultimately we are all managing Me plc. We are all a business of one and the same process the business goes through to minimise and manage those risks are things we should do ourselves, so its about managing as well as taking risks.

Michel Menou

Il est très facile de conseiller aux étudiants de prendre des risques Il est vrai que les initiatives qui sont ensuite prises dans les formations pour soutenir une telle démarche ne sont pas toujours couronnées de succès. En ce qui concerne le projet professionnel que j’ai présenté ici et qui, dans notre université, entre dans sa 4^{ème} année, tout n’est pas gagné. Ainsi, quand on fait le concours de posters dont j’ai présenté quelques images, le Président de l’université, le représentant du conseil général sont présents

et trouvent cette démarché très intéressante. Mais quand il s'agit de soutenir ces initiatives, les collègues trouvent que cette activité va diminuer le volume horaire de mathématiques, physique et chimie ; il y a deux jours un coresponsable du secteur sciences craignait que cette activité décourage les lycéens de venir s'inscrire dans notre université. De la part de certains responsables de notre université il n'y a pas encore prise de conscience. Il faut lutter pour insérer certaines initiatives au niveau des différents cycles. Je pense que les choses se font lentement mais, il est vrai que ce n'est pas simple. On peut donc s'étonner du décalage entre les discours et la réalité.

Kimberley del Gizzo

If I might just add a postscript to that too. I listened to the conversations this week and I have talked earlier today about the sense of self or self esteem that students have or don't have. We are encouraging people to be self-confident and to be able to promote themselves and feel good about doing that. I think we also need to be very conscious and aware of the fact that not everybody moves through this process at the same time, at the same age or at the same speed. A colleague reminded me earlier of this and I thank you because it is critically important for me to have this awareness because I have students who I work with who may be 22 years old, thinking about graduate school and who are very self confident. I also have 40 year olds who are not ready to engage in this process and while I want to encourage them and support them, I think the most important thing is that I educate them about the process and that they engage in it when they are ready to engage in it, that they feel OK about that and that they don't again feel a sense of failure thinking, "Oh my gosh, I should have done this when I was 20. What is wrong with me, that I haven't got to this point yet?" So again, not to give them any opportunity to experience that sense of failure but rather to know that this is a very individualised process. We serve them well if we educate them about the process and invite them to engage in it when they are ready to do so and it's something that hopefully, ideally will continue throughout their lifetime.

Andrew Bottomley

I would just like to respond to Daan's point which I think really does tackle one of the critical issues to do with transition from higher education into the world of work. I am sure that many of us in this room appreciate that a large proportion of undergraduate teaching in particular in the sciences and engineering, is in bringing individuals towards identifying the correct solutions to well defined problems and learning how to do that. In fact the essential transition into the world of work is realising that the major part of the demands within business is to identify the problem itself and then bring to bear one of anything up to the 5 or 6 potential working solutions. It is this interpretative ability from the teaching and learning process that can then be transferred into the world of work and this is the critical step that it seems that some are able to make and some are not able to make. To further illustrate with an example: each year in the UK we recruit a lot of graduates but approximately 240 people of those whom we hired last autumn had arts and social sciences degrees. Some of the key value that these people bring is that their teaching, unlike that of many of the scientists and engineers, is not that of black and white. They deal with a lot of grey and they are very good at saying what sort of grey do we go with. This kind of approach and the pedagogy that they have been exposed to in getting their degrees is particularly valuable in the business environment. We place great emphasis on this kind of almost "intrapreneur" type attitude in our selection processes. Some of our brightest stars, our best people, have arts and social science degrees.

Gerhart Rott

I enjoyed this argument very much. So it goes back to this dialogue between the university and the world of work outside and it also reflects the kind of teaching and the philosophy within the teaching world and the need for a much more substantial exchange of ideas between academics and the world of industry.

Margaret Dane

Another point that you made was that often the drive to set up a business is actually to provide a solution to a specific problem, to fill a gap. Again, when I was doing the research for my workshop,

one of the things that struck me was that in a survey of those who had set up and succeeded in developing their own businesses, the highest rating was given to seeing an opportunity. In other words more people set up a business because of something they seemed to need doing than because they sat with a blank sheet paper saying: "Well I think I shall be an entrepreneur". So, in other words, the problem brought out and encouraged that side of their own development.

Okan Tarhan (Middle East Technical University, Ankara)

Well, I just want to give you an example of an experience we had in our university. I am from Middle East Technical University in Ankara and I am Professor of Chemistry, like my colleague there, looking after the Careers Office business. In the third and fourth year most of the departments have graduation projects. These were done individually. We asked staff members why they did it individually and not through team work. Then they agreed to change and the projects have been arranged for 3 or 4 persons and then of course the quality of the projects very much increased. Afterwards we said that we wanted to present those projects to industry. Our purpose was to make such presentations to show that the University has good students and so that the industrial representatives might give jobs to them. It turned to be that some of the companies liked the ideas so much they bought three of the ideas and one of them is now being marketed. It was a simple device to repel stray dogs by giving off some high frequency signals and then the dogs did not approach. It is selling very well at the moment. I don't know who is going to get the money out of it because that was the first experiment that we had.

Joel Denervaux

J'aurais voulu rebondir sur plusieurs interventions qui ont été faites et tout à fait dans le sens que vous indiquiez les uns et les autres. Il y a actuellement des expériences dans les écoles d'ingénieur, de création de « business schools ». Je peux vous garantir que dans le domaine du secteur tertiaire, du conseil, de la formation, des services proposés aux entreprises, ces expériences sont concurrentielles et apportent beaucoup de nouveautés au niveau de la relation entre entreprises et fournisseur. Ces entreprises existent et sont animées par des étudiants de disciplines diverses qui se mobilisent sur le projet. De telles expériences existent aussi au niveau de l'université ; nous animons, Yves Morel et moi, des doctorales dans toute la France et nous sommes capables de faire créer à des étudiants en une journée de dix à douze heures de véritables projets dont les chances d'aboutir sont très grandes et pour lesquels les risques devraient être évalués. Cette expérience met en valeur les aptitudes de certains doctorants au métier d'entrepreneur.

Lorsque l'on a compris que les étudiants sont capables de le faire, il faut encore que les enseignants l'acceptent ; et il est vrai que c'est beaucoup plus difficile, nous sommes dans des systèmes d'enseignement dans lesquels on note, on encadre, mais dans lesquels on n'accompagne pas la réflexion sur la prise de risque. Les enseignants sont beaucoup plus là pour sanctionner, pour faire des têtes bien pleines, mais pas nécessairement pour travailler sur la prise de risque. La question, il est vrai, se pose pour les étudiants entrepreneurs ou pas sur l'entrepreneuriat ou les possibilités d'entreprendre. Je prends le pari que, la plupart d'entre eux, qu'ils soient dans les sciences dures, les sciences de l'ingénieur ou dans les sciences sociales ou autres, sont parfaitement capables de le faire. Ils ont tous énormément de potentiel. Il est aussi vrai que le système dans lequel on les fait vivre pendant de très longues années, la scolarité est longue dans tous nos pays, ne leur laisse que peu d'espace de liberté. Lorsqu'on leur donne la possibilité de le faire, ils ne savent pas en profiter au moment opportun. On a souvent tendance à parler de l'entrepreneuriat, de la prise de risque de l'étudiant mais il ne faut pas perdre de vue que le système dans lequel il vit n'est pas toujours un système qui lui permet de se lancer.

Margaret Dane

Thank you all very much indeed. I would now like to draw this session to a close by thanking our guests and particularly those who came specially for this session. HEC is one of the best business schools in France and we are very grateful to Monsieur Denervaux for coming to address us. Thanks also to Monsieur Morel who is clearly leading the field in his own area of work in helping others to do what he struggled to do ten years ago. Thanks to Monsieur Menou who is very engaged in helping students to develop the entrepreneurial skills that we have all identified as very important. Similarly

thanks to Kimberley Del Gizzo and Gerhart Rott, both working within a guidance service, trying to develop new ways of thinking and new perspectives for students, and finally thanks again to Peter Hawkins who is himself working as an entrepreneur and as an inspiration, a role-model and a coach to others. Thank you and enjoy your lunch on this final day of our Summer University.

Workshops

Workshop A

European students as managers of their own careers

Gerhart Rott (Wuppertal University)

The workshop heard a short presentation of the topic “Europeans students as managers of their own careers”. We stressed some headlines from that presentation: These were:

- Guidance and consulting
- Education
- Social changes

With the text in mind, the group shared some good examples within the headlines above. They were:

1. Guidance and consulting:

- Career groups where students are offered a lot of activities such as: Personal guidance, Meeting alumnis, Testing an interview situation, Feed back on the activity
- Company connected activity where students are in projects that are useful for companies
- Career training with academic credits

2. Education

- We discussed a shift in paradigm for traditional view at academic career vs entrepreneurship

3. Social changes

- It was stressed how the students with disabilities felt inadequate with companies/employers but that changes in new technologies could be at help for that group

For further information concerning this workshop or the WISA (Wuppertaler Interdisziplinäres Studien Angebot) project, please get into contact with Gerhart Rott at:

Rott@uni-wuppertal.de

Workshop B

The specific aspects of creating enterprise in guidance activities. Good (?) practice in Europe

Pascal Ferran (Université de Nice)

In this workshop it was proposed we should exchange and confront ideas and experiences surrounding the following

1. The Individual's personality

- character and personal qualities
- know-how and competencies
- motivation

2. Their Suitability

- Moving from an idea to a project
- Development of a commercial concept
- Adjustment of the project while reinforcing the concept

3. Their Environment

- The family, social, cultural, economic, political, technical and professional environment.

However the discussion was not structured in this way ; one of the reasons for this was the need for each country represented to define at different stages the particular features of their own educational system (UCL, Louvain-La-Neuve, UIB. Brussels, University of Lisbon and the French Universities of Strasbourg 2, Lille 1 and Lille 3, Nice and La Rochelle (the latter both sole and multi disciplinary).

It was acknowledged that the word 'enterprise' should be considered in its widest sense : private/public enterprise, association....

Can one **define an originator** ? In fact there is not just one profile but several : **to be an originator is rather an attitude.** To be self-starting to be an activator of one's personal future. Moreover, the evolution of the market has to some extent modified the classic notion of enterprise. And the enterprise of tomorrow ?

But is it the role of guidance or employment services to spot these potential originators and encourage them to propel themselves in this direction ? or maybe to dissuade them ? No. the participants response was negative, **it is only possible to help the young person carry out his own self-appraisal.** Besides the best of originators often need complimentary competences which will be brought in by fellow team-members with different profiles. **All the academic routes permit the development of operational competencies** even philosophy.

- At Strasbourg, for instance, the cultural life is so intense that students of literature have many opportunities from where reflection on the course set-up, constitutes elements that can be capitalised on throughout the course to facilitate transition
- In Portugal, teaching of Management Economics is taking place in Technological Institutes
- At Louvain, students must carry out a review in order to choose optional courses, common to all disciplines
- At Lille 3, an assessment of competencies including self-knowledge is actively incorporated throughout.

All the participants were in agreement that **it was not through the teaching of management and economics that careers are born.** To stimulate entrepreneurship, that is to favour forward movement, and that as much as possible.

Educational programmes which include project work are forwarding matters in this respect – (Lille 3 – experience in the secondary schools in Brussels).

Indeed for the movement of a project to completion stage, help is available, thanks to several organisations including incubato

Workshop C

Doctoral Studies, a channel for Entrepreneurship.

Marie- Françoise Le Moal (Université Paris 6)

Germany, Belgium, France were represented in this workshop.

Surrounding the term 'Doctoral School' the pursuit of a thesis and of studying a specialism/profession was defined – the duration of the thesis and the status of the doctoral student was an issue for all the participants.

Mutuality in terms of recognition is desirable as a European doctorate is put in place. All the members present wished that **our respective ministers would lean towards adherence to a charter defining a european label**, which would allow recognition of the quality of the thesis and its title. Other important problems to take into consideration are linked to **the 'readability' of diplomas and mutual knowledge between enterprise and university**.

The second subject to be considered was that of **entrepreneurship**. Above all, **entrepreneurship is a vocation** and the challenge of enterprise comes into play from when youngsters are 7 or 8 years. Directive studies here often impeded the expression of creativity. Not everyone is born an entrepreneur for which specific qualities are required : a taste for risk-taking, ambition, a spirit of initiative, a capacity to bounce back, to follow up. Opening a window for degree-holders is to lead them forward to 'live out' their thesis developing these aptitudes, but as administrators are we the ones best placed to do it ?

The recognisable quality in all doctoral degree-holders is competitiveness. Is there a connection here with entrepreneurship ? In developing the self-knowledge of doctoral degree-holders and of their deeper motivation in preparing a thesis we can perhaps lead some of them forward to become entrepreneurs

Workshop C'

PhD students as managers of their own career : employing an entrepreneurial mindset.

Kimberley Del Gizzo (Harvard university)

The workshop began by setting the context in which PhD advising takes place at Harvard University in the Office of Career Services for the Faculty of Arts and Sciences.

PhD students seek counselling at any stage of their graduate studies (from the first year and beyond) and, at Harvard, they are also welcome to seek counselling throughout their studies (as alumni).

As graduate students consider the pursuit of academic and/or non-academic careers, they are encouraged to employ an entrepreneurial mindset.

An entrepreneurial mindset requires the individuals to establish an entrepreneurial frame, consider a wide range of opportunities, target the best opportunities to pursue (the “best fit”), and explore adaptive execution (be flexible in order to develop a successful plan and execute it with consideration of internal and external factors).

An entrepreneurial profile has been described as one having:

- A desire for achievement, goal oriented
- Well developed interpersonal and networking skills
- Excellent communication skills
- An attraction to power and then a transfer to empowerment
- Deep knowledge of field / industry; a need to know the product, its market, competitors and be able to create appropriate market strategies

An entrepreneur must have capital, initiatives, creativity and “nerves of steel” (willingness to fail and try again). He/she must hedge their risks and always keep a plan B in mind.

Many PhD students, in fact, possess an entrepreneurial mindset.

Our graduate students have often done extensive research to explore and pursue graduate school opportunities

They have significant discipline to pursue their PhD studies (sometimes in a less than supportive environment). Our students often seek out the best opportunities for professional development (for instance when choosing an advisor, when publishing...). Often, they employ adaptive execution (for example, scientists who must be careful not to be “scooped” – to have their work claimed by someone else). Also graduate students engage other specialists in their discipline.

In business an entrepreneur must look at the big picture and in graduate schools , students must be extremely focussed (however in the context of the big picture, or scholarly frame of reference) Entrepreneurs must sell their ideas, as do graduate students. They must find funding, as do students. They must have the discipline to do extensive research, as do graduate students. They must be successful marketers of a product or service as graduate and students are when pursuing fellowship or grants.

Both must ask questions, collaborate with others, develop a “thick skin” to receive critique and they must be conscious of their development throughout the experience.

Our PhD students must learn to package and market their talent.

Some PhD attributes include:

- Strong communication skills
- Excellent research skills
- Mature critical thinkers
- Skilled project thinkers
- Experience in teaching and public speaking
- High achievers
- Fluent in a variety of languages (including technical)
- Experience in mentor and managers

In order to maximise their experience and time as graduate students, individuals must take their ownership and engage in the process of professional development as soon as possible.

At this point, participants were given copies of “Professional development begins today”. This is a document produced by the Harvard Office of Career Services in collaboration with the Graduate School of Arts and Sciences Office of Students Affairs and the Book Centre for Teaching and Learning. This brochure introduces students to the concept of professional development, encourages them to begin the process and provides specific techniques for doing so.

For further information concerning this project, please get into contact with Kimberley Del Gizzo:

Delgizzo@fas.harvard.edu

Workshop D

European Graduates : managers or entrepreneurs, that's the question

Eleonore Vos (Vrije Universiteit Amsterdam)
Daan Vunderink (Amsterdam Universiteit)

The starting point of that workshop was that as graduates are entrepreneurs of their own career, they are guided throughout this process by their advisers in universities. In order to share experience and go through the process of reflection, participants were invited to draw their own “wanted” poster. Everybody presented herself (or himself) to the other participants as a product on a market (employer, client) with an estimated price (reward). This exercise showed us the difficulties that students and graduates have to face when they are about to put themselves on the market.

In entrepreneurial terms, we identified:

1. Problems in valuing your profile identified
2. Problems in estimating your price (reward)
3. Problems in defining and selecting your qualities
4. Resistance to the idea of selling yourself
5. Problems in selecting the market you actually go for

One of the conclusions in the group was that we seem to be better in presenting the benefits to our clients (students) than our qualities to the institutions that employ us !!

In the second assignment, participants were asked to describe **the ideal type of graduate with entrepreneurial qualities**. Furthermore they were invited to share the possibilities of advisers to guide the processes of careers in an entrepreneurial way. Many entrepreneurial competencies, skills and personal achievements were identified. The role of advisers can be to offer help with reality checking, financial information, finding incubators, role models and partnerships. The most **essential role of advisers** in this area through seems to be focussed on **the support in the reflective process**

Workshop E

About creative job search

Colette Aungier (Trinity college, Dublin)

The theme of creative job search was addressed with emphasis on examining **the concepts of the hidden market, the information interview and the networking process.**

The treatment of these by the Minnesota Work Force Centre and by Peter Hawkins in “The art of building windmills” was highlighted by the presenter. The objectives of the session were to examine the concepts and the skills required to succeed and developed through engaging in them. The group answered the following questions:

- Which skills seem to be the most important to be a successful creative job searcher?
- How can we introduce students to “networking” and “information interviewing” so as they can maximise their use of these tools?

and concluded that effective ground work was essential from the outset so as to target contacts effectively

Important factors

- **Building confidence** and self-esteem were considered important
- Enabling skills while developing a “**stepping stone**” approach along with an ability to set and change goals as required. Two examples of successful creative job search were supplied, citing the importance of having an idea and successfully managing its execution:-A theology graduate succeeding in obtaining funding for a publication from a large computer company and a psychology graduate through networking with the Police as part of her studies, ultimately creating her own job, training them in effective interviews with the public (University of Lausanne)
- Luck was also considered as a factor: **Creating your own luck**
- **Positioning yourself** with work experience as early as possible in your student career (ULB Brussels)

Workshop F

Which employment sectors offer the best opportunities for entrepreneurship?

Margaret Dane (Herriot Watt University)

This workshop was focussed on these sectors which offer the best opportunities for entrepreneurship and some of the statistics on self employment from the United Kingdom.

The sources of information were a major international business support service for young entrepreneurs called “Shell Livewire” and a Scottish network for new small businesses called “Local Heroes” She also used a summary of graduate destination information from “Herriot Watt University, Edimburg” over the last four years, for those graduates who set up their own business. The main sectors were described in a general way with illustration by specific examples of activities and work being carried out.

The group also looked at some of the research findings into what motivates people to set up their own companies, the advantages and disadvantages of being self employed and the gender and age profile of those who set up businesses in the UK

Discussion amongst the group included the need to differentiate between areas where self-employment is the normal career path (art and craft), and those where there is a real potential for growth and employment of others. The national differences within Europe in terms of size of companies / number of employees and, consequently, the employment options available, were also referred to.

Finally, there was a brief reference to graduate expectations of what opportunities a degree will open to them and the need to ensure that these expectations are realistic.

For further information concerning the sources of information described during this workshop, please get into contact with Margaret Dane:
dane @hw.ac.uk

Workshop G

What interests are our students bringing to their careers.

Geneviève Laviolette (Université Paris 7)

Our students traditionally grew up in the expectation of being salaried persons. In the crisis years of severe institutional pressures, a certain number were forced to consider creating their own employment or business.

Emerging from the exchanges that took place in the workshop, was the consideration that the creation of enterprise should be considered as a possible professional outlet and should be integrated into the activities facilitating entry to work offered to students independently of their academic courses.

The attendance at the workshop proposed that this type of action should be written into the University's policy statement with a strong endorsement from the University's office-bearers.

A plan of action was proposed :

- During the 1st cycle there should be an exploration of the range of careers
- At 2nd level (the degree being the critical year) : help with construction of career choice, first work experiences (internships) with review subsequently.
- At the end of the term of study an 'accompagnement' for the student entering the job market

Workshop H

What do we mean by Entrepreneurship? How can we 'teach' it in Higher Education?

Val Butcher (NICEC)

This workshop considered what we mean by "Entrepreneurship"; new developments in the UK; how employers can be involved and the theoretical basis (recent and current research.)

The new vocabulary developed for the changing world of work and especially the language that Higher Education is adopting is, to say the least, imprecise.

Entrepreneurship is commonly confused with Employability, and I would suggest that they are, in fact, inextricable. In order to be a successful Entrepreneur, you first have to be employable!

It is important to remember that the psychological contract between the employer and the employee is changing.

This means in effect that companies need their employees to have Entrepreneurial skills to feed into the company. Proctor & Gamble, for example, have changed their recruitment criteria for graduate trainees from one year to the next.

The qualities of an Entrepreneurial graduate could be said to include:

- Confidence in self and work.
- Ability to evaluate themselves and their work.
- An understanding of their place in the market.
- Ability to cost and price work - know what they are worth.
- Ability to promote themselves and their work effectively to the right audiences.
- Ability to negotiate successfully with professionals and clients.
- Ability to use their problem-solving approach to learning as a transferable process

The additional dimension is giving students the ability to actually run their own business. It is no use training them to do this unless they already have the basic skills and attributes of employability.

Employability and Entrepreneurship is often implicit in vocational courses, what can we do for the rest?

A discussion ensued in which participants exchanged information on curriculum-based initiatives across Europe. In the UK, these include Graduate Enterprise, Durham University's GLEAM project and Context at Leeds University. International Corporate Leadership and the DTI's Science Enterprise Challenge were also considered.

There are two key issues that anyone considering establishing this kind of learning must consider: Assessment and involving Employers.

A number of Universities in the UK are using the Standards developed by SFEDI (Small Firms Enterprise Development Initiative) as a basis for assessment. SFEDI is the National Standards Setting Body for Small Firms Business Support.

In building relationships with employers, it is important to consider whether or not there is a history of relationship with the company; what their experience of the University might be; what is "in it" for them and the need to maintain a good relationship across very different cultures.

Finally, current research in this area was discussed. Research into employability is taking place at the University of Lancaster which will produce very radical suggestions about the nature and purpose of learning in Higher Education. This is the 'Skills Plus' project, which is committed to enhancing graduate's learning and employability by Working with subject departments in Higher Education on

Curriculum Design so that their undergraduate programmes help students to learn well and enhance their employability in the process.

It is also doing research to improve understanding of what graduate employability means in the work place.

The project will run from August 2000 to June 2002. Dr Peter Knight in the Department of Educational Research at Lancaster University administers it.

Useful addresses and contacts which arose from the workshop:

Small Firms Enterprise Development Initiative

7, Britten's Court

Clifton Reynes

Olney

MK4 6LG

Tel: (+44) 1234 241255

E-mail: BAB_Ltd@compuserve.com

Ty Power,

Director,

Graduate Enterprise UK

Tel: (+44) 1524 272862

E-mail: typower@eng.young-enterprise.org.uk

www.young-enterprise.org.uk

Workshop I

How do we deal with specific needs Values and attitudes of potential entrepreneurs

Raoul Van Esbroek (Vrije Universiteit Brussel)

The starting point was a discussion about the profile of an entrepreneur. The entrepreneur could be a person who, for instance, is willing to take risks, to perform, who can identify possibilities and has a wish to develop and to earn money.

He/she has a specific personality with a need for autonomy and independence. He/she needs to be in control and take full responsibility.

This profile could be applied to a variety of persons and there has to be specific sociological supporting factors present. These characteristics are a passion for a product or a service, role models in the close environment and support for a network / group.

Not being satisfied with one's current conditions or losing the employment are together with beneficial new economic conditions and conviction to be able to overcome expected difficulties other factors that help in creating an entrepreneur

Differences between male and female entrepreneurs were also discussed

Workshop J

How to create an innovating enterprise from a piece of research ? Identifying favourable factors – Looking at European experience

Eric Verkant (ANVAR,France)

This workshop was concerned with identifying the problems posed by the creation of innovating enterprises. Unlike the US there is little interaction in France between research and the world of industry ; however, since 1999, there is an evolution encouraged by a law which favours the transfer of research to the world of the economy in France, ANVAR helps with the creation of innovating enterprises and supports these for up to one year. At the time of the elaboration of an entrepreneurial project, five dimensions must be considered :

- Marketing
- Technical aspects
- Legal Aspects
- Financial aspects
- Organisation and Management

In an entrepreneurial project carried out by researchers, marketing and organisational aspects are often the weakest.

The support for the creation rests on the analysis of the project in terms of its relationship to the marketplace, help with training a team capable of covering the five dimensions of the project, then during the life of the enterprise it is necessary for watchfulness for the business plan being called into question in relation to the evolving scope of the enterprise in its environment. In a project depending mainly on its leader it would be desirable to train researchers in the spirit of enterprise.

To facilitate the creation of enterprise the universities should integrate into their training preparatory modules in entrepreneurship, management and commercial practice

Workshop K

e-people : engaging talent in the entrepreneurial age

Nanette Ripmeester (Labour Mobility)

The workshop started with a short presentation of Nanette Ripmeester and her work for expertise in Labour mobility and the Career Innovation group. The Career Innovation group is an international alliance of major employers (employing an estimates 1.5 millions people between them) who first came together in 1968 to develop their understanding of a generation of young talented workers from across the world.

At the heart of the CI group is a program of research and international seminars which are used to develop a range of practical responses and tools to help members companies engage the talents of their current and future workers.

“The new competitive realities demand that companies draw on the imaginations and brainpower of all their people, encouraging them to innovate and improvise quickly and rewarding them for their initiative and entrepreneurial spirit”. These words have a deep implication and that means a change in mind.

A new work scenario has already taken place on a small scale; it might grow big in 5 – 15 years time. The Wired World will be dominated by a network of enterprises and free agents working together on a project, linked by technology contracts and personal network”. The traditional work organisation “Command and control” organisation is no longer a magnet for talent. With entrepreneurship education, start-ups have become a realistic career option for talented graduates.

The big start-ups attractions are:

- ◆ Opportunities for rapid learning and developments
- ◆ Presence of a challenge
- ◆ Opportunity to make a personal impact at work
- ◆ Good experience for my future career
- ◆ Right time to make advantage of the new business trend
- ◆ Creating something from scratch
- ◆ Young and lively atmosphere of new business
- ◆ Opportunity to be in control of my own destiny
- ◆ Managing my own work
- ◆ Working with a good management team

People working in large companies have roughly the same perceptions on what they would value most if moving to a start up. If they want to attract and retain talents, companies must release leadership, evolve an entrepreneurial culture, reinvent career offers.

The appeal of start up is:

- ◆ Opportunity attraction: this is about the learning and development as well as the sheer degree of challenge for start-ups.
- ◆ Autonomy attraction: This is primarily about being in control but also the opportunity to make a personal impact at work and the attraction of being able to create something from new.
- ◆ People attraction: this is simply about working with great colleagues and a good management team. It is the most important factor attracting people not currently working in start-ups.
- ◆ Reward attraction: The reward attraction covers base salary and the potential for performance-related reward as well as the feeling that I get a fair reward for my contribution.

- ◆ Technology attraction: There is excitement and prestige to be gained from working with and developing leading edge technology

The workshop first discussed the current practices in Universities to promote entrepreneurship. Discussion on what happens in France, UK, Finland, Netherlands and Swiss provided a nice overview of what's happening: Scaring scenario for large established companies!

Then, always comparing the situation in the different countries, the workshop discussed about:

- ◆ The difference male / female joining a start-up
- ◆ Graduates having a much higher self-esteem as previously
- ◆ Children nowadays growing up in a riskless environment

Conclusions

Gerhart Rott (FEDORA Vice president)

I now have great pleasure in introducing you to Jean Pierre Doucet who is a Professor of Chemistry here at University Paris 7. He has been with us during the Conference and at some of the workshops and has produced a summary of all the workshops based on this and the notes of the rapporteurs. He was Director of the department of education giving students teaching experience and for seven years he prepared PhD students for an academic career. So we are very happy that he agreed to summarise the main points from the workshops. After that Margaret Dane will give us an overview of the whole conference and list the fresh perspectives which we can take back with us into our work back home in our offices. So first over to you, Professor Doucet.

Jean-Pierre Doucet (Université Paris 7)

In the course of this summer university, twelve workshops were on offer and led to discussions of a most enriching kind.

Rather than presenting conclusions consecutively which is likely to become tedious and repetitious, I have tried to extrapolate the main themes from the summaries supplied. An exercise of this kind is always rather subjective, but I would hope not to present the conclusions of the presenters in a not – too distorted fashion.

The first element revolves around the strand of social and economic change.

Due to globalisation and the creation of open competitive markets, there is a need for a rapid adaptation from national economies. In our economic systems, where innovation is such a driver, entrepreneurship seems a necessity for economic growth.

In this context, enterprises linked to new technologies and to ‘e-people’ will have an important role, but we will see that the spirit of enterprise crops up in very diverse settings.

This ‘mutation’ has an implication for a profound change of mission; enterprises must encourage innovation and the spirit of being enterprising, which is differentiated from the traditional organisational style of ‘command and control’. Workshop K presented the result of an important statistical study on 18 multi-nationals (1300 young people of 67 different nationalities) showing that a new paradigm is being put in place where companies must forget the terms ‘recruit and retain’ but rather ‘engage collaborators in partnership in a community motivated by a common project’.

Among the most motivating factors attracting young graduates towards ‘start-up’ situations it is possible to identify

- The possibility of rapid career development
- An appetite for challenge
- The possibility of impacting personally on the work

Workshop F also reflected on the elements enabling a person to create their own enterprise and detailing the advantages and drawbacks associated with being one’s own employer (independence, the intellectual and financial satisfaction that comes with success, but as a ‘downside’ the need for self-discipline, financial risk, time pressures). The discussion also placed emphasis on the need to distinguish the sectors where it is natural to be self-employed (crafts workers,, the arts) and those where there is a real potential for growth and recruiting co-workers. The difference between European countries in terms of firm-size and the implications for choice of possible employment was also underlined. The group also examined from the base of UK statistics the main sectors of activity for graduates wishing to create their own enterprise. A more detailed analysis will be provided in the Congress Proceedings, so for now I will mention IT and new technologies obviously, but also Tourism and Catering

This is not a totally comprehensive assessment in respect of the workshop on Creative Job Search. There an example was given of a Psychology student who had succeeded in becoming self-employed, training the police in better communications with the public.

Another principal theme: What qualities are needed to become an Entrepreneur? From the various workshops the concept emerged very clearly that entrepreneurship is a vocation and that personal qualities are of primary importance. The profile of entrepreneurship is essentially characterised by:

- A desire for success
- A passion be it for a product or for a service
- A gift for communication
- A spirit of initiative
- Creativity
- A good knowledge of the territory and of the competition
- Nerves of steel: to protect oneself against risk, always having a plan in view, being able to sustain failure and start again
- A need for autonomy and independence
- Knowing how to call on a network

In fact as was underlined through the Harvard experience workshop, PhD's possess these qualities. Beyond their particular qualities of research competency and critical mentality - experience gained in the pursuit of a scientific project - they must prove during the preparation of their thesis that they possess

- The discipline to pursue their research sometimes in unhelpful circumstances
- Adaptability (making the subject evolve in line with the results, choosing a framework, a review for publication, managing time so as to maintain the primacy of place of their work

Like an entrepreneur they must sell their ideas, research the backgroundarm themselves against criticism.

Moreover, numerous innovation enterprises have been created by PhD's exploiting an idea arising from their thesis work or from later research. This progress from research work to an innovation must take advantage of any supporting schemes in place in their country (grants, incubator companies).

Moreover, to maximise their experience, PhD's must get involved in the development of their project as early as possible.

On the question

How to create wealth from the results of research?

The workshop has taken advantage in the main from the example of ANVAR – the French agency for the evaluation of research. In the progression from research to innovation in market terms five aspects have been defined aspects - which often escape researchers

- ◆ Marketing
- ◆ Technical aspects
- ◆ Legal aspects
- ◆ Financial aspects
- ◆ Organisation and Management

For projects generated by research the weak points are essentially marketing and organisation.

It is advisable, therefore, to analyse projects carefully in terms of their suitability for the market, with a strategic plan of three years minimum. Also, the business plan must be evaluated in terms of how the enterprise is evolving in enterprises where expertise or knowledge are essential so it is important to be able to retain staff. The departure of one staff member can destroy an enterprise.

ANVAR accompanies young enterprises through these different levels and bears an important share of the financial risk (up to 50%). This participation acts besides as a safety-net to potential investors.

The third section does it concern our students more directly?

Do they adopt an entrepreneurial mentality? What can we do, What must we do to help them acquire the mind of an entrepreneur?

A first observation: to be an entrepreneur you must be enterprising. This is central to creative job search.

In the U.S six out of ten vacancies are not advertised but have been elicited in a creative manner by those who hold them. This is the 'Hidden Market'. To take off from the launching pad for one's future career one must seize the opportunity but luck can come into it too: It's an example of the old adage *God helps those who helps themselves*. Doing the groundwork is necessary from the outset

- Research the information, create a real network using all possible contacts
- Don't wait to take the initiative
- Set objectives for oneself but know how to modify these according to your circumstances, changing them as necessary.

Several workshops were insistent on the fact that in the development of a personal project it was important to gain professional experience as early as possible in the student progression. On the whole in this progression, workshop participants have discerned difficulty being experienced by graduates in selling themselves, difficulties in assessing themselves in identifying their personal qualities, in selection a market for themselves. It seems we are better at presenting these benefits to clients (students) than our own good qualities to our own employing institutions.

What should be the role of guidance counsellors?

The participants insisted on the fact that the adviser must offer assistance: financial information, funding incubators or partnerships. But it is not just their role to detect potential innovations. One can only encourage a young person to carry out his own assessment and to help him in his process of reflection. Examples were given of several universities where the practise is to write up a log on the development of students' competencies, including self-awareness, in order to stimulate entrepreneurship. Above all progress that is dependant on personal qualities is favoured and should be to the fore as far as possible. It is not certain in teaching economics or business that one may put in place vocations, however it is important that the future entrepreneur is appropriately equipped. Different projects have been put in place in this regard.

- Chairs of Entrepreneurship and of Economic Development
- Training courses complementing academic training with professional competencies, for instance in Germany in the area of federal projects or of regional programmes or in universities, such as the WISIT project developed at Wuppertal. The sought objective being to enlarge is to interdisciplinary competencies (communications, new technologies) while in parallel one aims to develop competencies in decision-making, in conflict resolution—resulting in growth of self-confidence. Sometimes academic 'credits' are attached to training of this kind but it is necessary to assess the expectations of students as to the possibilities which success in this exam opens for them so as to reassure them that these efforts are justified.

Some workshop participants had also received the brochure 'Professional Development Starts Tomorrow' prepared by Harvard, which maps a route from which a programme for preparation for work can be developed.

In the sector of guidance and counselling activities various initiatives have been taken, consisting in particular of involvement of students in 'real' projects, that is to say not school exercises but real projects of significance for enterprise. Indeed, one workshop, comprising French and Belgium

universities insisted that the ‘creation of’ enterprise must be considered as a possible entry to the workplace and must be integrated into the activities for preparation for entry into work offered to students independently of course work.

This kind of activity should be written into the University policy, with strong encouragement coming from the Presidential team to their colleagues.

A plan of action could be:

During the first cycle

Exploration of workplace performance at second-cycle level (the degree year being ‘prime time’)

- Help in making a career plan
- First work experience helped by work placements
- Feedback on the experience afterwards

On completion of studies

‘Accompanying’ people on their entries to the job market

With thanks

To the workshop facilitators

To participants whose contributions enriched the discussions and widened the debate.

Thank you so much Professor Doucet for that very substantial report and the work you have done in preparing it. Listening to it I thought it was quite impressive what we have covered during these few days here in Paris. Despite all the organisational difficulties, I think we managed quite well, and we had a very impressive summary here. First of all, are there any immediate questions on the report? Then we can see if there are some additional comments to make and then we can have a short discussion on it. (There are no questions or comments.) OK you obviously did a very good job, everything was covered in the report. Thank you so much again.

Margaret Dane (FEDORA President)

I sense that people want to get away so I won’t hold you back any longer than necessary. If people want to ask questions please do. Can I thank you first of all for staying until now. I have just counted you and we haven’t lost very many, so thank you. Please bear with me because I know you have seen and heard quite a lot from me already this week and I apologise for that, but I think there are still one or two things that have to be said. Firstly, I would like say a little bit about FEDORA and its summer universities. Then I would like to say thank you to a number of people and to add my thanks to Professor Ducet for a very good overview and summary. Like Gerhart, I feel that when you listen to that report, you realise that there has been a substantial amount of work done this week. I have certainly learned a lot and I am sure that most of you have too. I will quote a comment from a colleague who will recognise it when he hears it. He said to me “I go to many conferences and I never work as hard as I do with FEDORA”. Perhaps that is a good sign.

Very briefly then, the objective of the summer universities for FEDORA is primarily to learn. Firstly to learn so that we develop and improve our own practice and our own professional services. Secondly, to exchange and to share ideas, information, experience and practice. We have certainly had some very good examples of that in the workshops but of course we recognise that a lot of it also happens informally through the discussions outside the workshops, over lunch or anywhere else. The third aim is really to network, to develop contacts, to make friendships but that have practical outcomes. We know from past experience that an event like this always stimulates further contacts and inputs. FEDORA is a family, and I always think a good test of a family is when they share meals together. You can see how close they are when they start sharing food from each others plates and we had some of that this week. I think it is a very positive message about us. Finally so that the lessons that we have learned and shared this week are not lost and indeed, so that they can be shared with others who weren’t here, we will produce a report of this event. This summary of the workshop outcomes is a starting point but particularly Nicole has been collecting the notes from the speakers, and the plenary sessions have been recorded. I have noted the point that was made earlier about a

bibliography. We will try to develop one in relation to the topics we have covered. If people are aware of other sources of information please send them to Nicole.

The aim of this particular summer university was to look at issues around enterprise and entrepreneurship, how we can prepare our students and graduates better for a world where entrepreneurship is more important. We have listened to the perspectives of different people on this, to advisers and teachers who are running courses and training development events, to employers who recruit such people but also give advice to small businesses and listened to people who run the advisory services, the incubator services as well as those who are teaching business skills. I think we have had a very good range of inputs and we have also had an international perspective, not just looking at one or two countries but looking at quite a wide range. I don't want to repeat any of the points that were made about the workshops but I think there were some key threads coming through all of this summer university. One was the need to develop an entrepreneurial mind-set, not just in our students but in ourselves. To perhaps be more willing to take risks and to manage risks. Risk taking is not the same as foolhardiness. It is not about standing on the top of a cliff and wondering if you are going to fall off, but it is about being willing to take a bit of a leap into an unknown future. There were also themes about how can we train students, how we can help them to develop the skills they need and how we can help them to recognise the skills they already have. But I think perhaps one of the other key messages for me has been about challenging our own comfort zones as well as those of our students, because most of us who have been in the university environment for many years as Daan was pointing out earlier, can believe we are quite safe, in Britain they call it a fur lined rut. These days it is not so fur lined, it is pretty cold and uncomfortable, but it can still be a bit of a rut and it can certainly mean we are not prepared for change.

Those have been the themes. We have done our work through plenary sessions, through workshops, through our round table discussion this morning, through visits to a number of universities, to their services to see how they work, to learn from experiences elsewhere, pick up and share ideas in the actual working environment. But we have also had social events and I think the highlights in that context have been the reception in the University Tower with its magnificent view and splendid buffet and our dinner at the Mutualité. I think we do really have to say thank you again to Genevieve and Nicole for pulling a rabbit out of a hat and turning what might have been a bit of a disaster into a real success because I certainly know that I am not alone in thinking the venue was very pleasant, and it was really a very nice evening, the food was good, the company was good and the environment too. The other special event was our trip on the Bateaux Mouches and it was such a beautiful evening I don't think any of us will forget floating along the Seine on a magnificent summer evening with our FEDORA colleagues. That of course takes no account of sitting around in the evening having enjoyable meals in little cafes here and there around Paris. That too, as those of you who have been involved before know, is a very important part of FEDORA events.

Can I just say on behalf of FEDORA, if you are not a member already, please consider joining. You do learn, it is fun, it is stimulating and you have an opportunity to get involved and to contribute. We are always looking for people who will do things as well as people who will take advantage of them. There is a website and I will put the address up. (www.fedora.eu.org). It is our new address and we plan to do a lot of work on updating it over the next months.

We also have changed over recently to electronic newsletters because we simply don't have the people or the money to produce a paper one anymore. Everyone is under such pressure in their jobs and electronic conveying of information is really what is wanted anyway. That is the plug for FEDORA over.

I want to finish by conveying our thanks and I am going to start with the wide range of speakers. I think it was a real coup to get the Director of Education from UNESCO to come to the opening session of our summer university. Monsieur Seddoh as we said at the time when he was speaking, is really "Mr Higher Education World-wide" and for him to give up his time and to make such an interesting presentation is something I think we should be very grateful for. We are even more grateful to him because on Thursday, Gerhart and I had the opportunity to go and visit him again in his office

and he really is very open to working together with us in FEDORA. I feel that has been an achievement of this event as well. I want to say thank you to the other speakers who came, one from the Education Ministry and one from the French Rectors conference both of whom put the work we are doing here into the context of what is happening in France and in particular into the context of the importance of enterprise in French higher education. Other plenary speakers we had were Stephen Eames who came from PriceWaterhouseCoopers and talked about the work that he does with small companies, and with entrepreneurs and some of the issues that he is concerned with. Andrew Bottomley, also from PWC and a very active member and supporter of FEDORA, who unfortunately has had to leave to go back to London, spoke to us both in his own role as Head of Graduate Recruitment with PWC but he also took over at very short notice and ran the session planned for Val Butcher. I am very sorry Andrew isn't here because not only was he a sponsor of this event in providing our conference packs but I am sure those of you who sat through the sessions he ran will feel he really has made a very major contribution to this summer university. I will write to him formally as well but I think he really stepped in to help us out over some of the slips in our programme. Finally as far as the speakers are concerned, I also want to mention Peter Hawkins who has also now left. I felt that his contribution on this last morning was really inspiring. He always stimulates you, he always gets you thinking in new ways and he even brought copies of his latest publication for you all. I saw how they disappeared as we would say in Scotland 'like snow off the dyke'. I thought the ultimate accolade in that respect was that one of our interpreters picked up a copy as well and I thought, that is some achievement. Thank you to the speakers.

A special thank you to the University of Paris 7 / Paris Sept for hosting this event and to Genevieve for organising it (but more of that later). I know that the Rector intended to be at the opening session and wasn't able to be there but I do hope that you will pass on our thanks to him and to other colleagues in the University and Professor Doucet, all of whom have played an important role in making it possible for us to have the summer university here. I'd like to thank the workshop presenters, (I won't name names, because there are so many and you do have them in your packs) but we wouldn't have a Summer University if it wasn't for the work that individuals do in preparing and in running the workshops. I know from the feedback that they have been very well received and I do just want to say an official thank you to those who did all that hard work, in some cases at quite short notice with their arms being twisted up their backs, but I do think they were extremely successful.

Thank you too, to our sponsors. The European Commission has offered a substantial contribution, they haven't made it yet, but they have promised a contribution which has allowed us to have interpreters here for the plenary sessions and will allow us to cover some of the other costs of this event. The French Education Ministry has also offered a contribution. I'd also like to thank PriceWaterhouseCoopers for their financial as well as other support. Those were our major sponsors.

We paid our thanks to the contributors to the panel this morning, but I also want to say a thank you our interpreters and please pass on our thanks to your colleagues who came on other days. It is a very, very demanding job and we are very grateful to them for their efforts in making the contributions understandable to all our participants..

Thanks too to the student helpers. I don't see any of them still here but they too did their important share. I took a photograph early on Monday morning when I was helping out a little bit, and they were all busy colouring in arrows. It looked more like a playgroup but the signs you see outside were all hand made with great love and care. They have helped in many other ways too so I want to thank them.

But now, last but most importantly, I want to turn to the people who have done all the real hard work that has made this conference possible. In November last year when the FEDORA Executive met, there was no Summer University planned for this year. We were getting pretty desperate because the Summer Universities and other events are the main way that we keep in touch with each other. They are very, very important to our continuing network, providing their life-blood and the continuation of stimulating ideas. You know who they are: Nicole Leray, Genevieve Laviolette and I don't want to

ignore Janette Flagel. We are extremely grateful to you for your very hard work in organising such an interesting, varied and enjoyable programme, for coping admirably with a whole series of difficulties and for being so kind and patient with all of us

Well, that is it. I promised we would finish by 3pm. Look at that, that is what I call good chairmanship. Three o'clock and you can all go and enjoy the rest of your time in Paris. Thank you and Goodbye.

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