

# **ENTREPRENEURSHIP EDUCATION and its FUNDING**

**A comparison between Europe and the United States**

**Report**

**June 2000**

**Dr. Bert W.M. Twaalfhoven**

**To the participants at the:**

- . European Business Summit Brussels**
- . HBS Conference Berlin**
- . Growth Plus Conference Cannes**
- . EFMD Conference Sardinia**

**European Foundation for Entrepreneurship Research (EFER)**

**Julia Prats - Harvard Business School (researcher)**

**Wilma Suen - Tufts University (researcher)**

# **Table of Contents**

**Introduction**

**Executive Summary**

**To Close the Gap**

**The Sample**

**Findings: Entrepreneurship Education in Europe and the U. S.**

**Entrepreneurship Education in Top European Business Schools**

**Best Practice Models**

**Appendix1: Entrepreneurship Education at U. S. Post-Secondary  
Institutions**

**Appendix 2: Report's Methodology**

# **Introduction**

**Some statistics**

**This report**

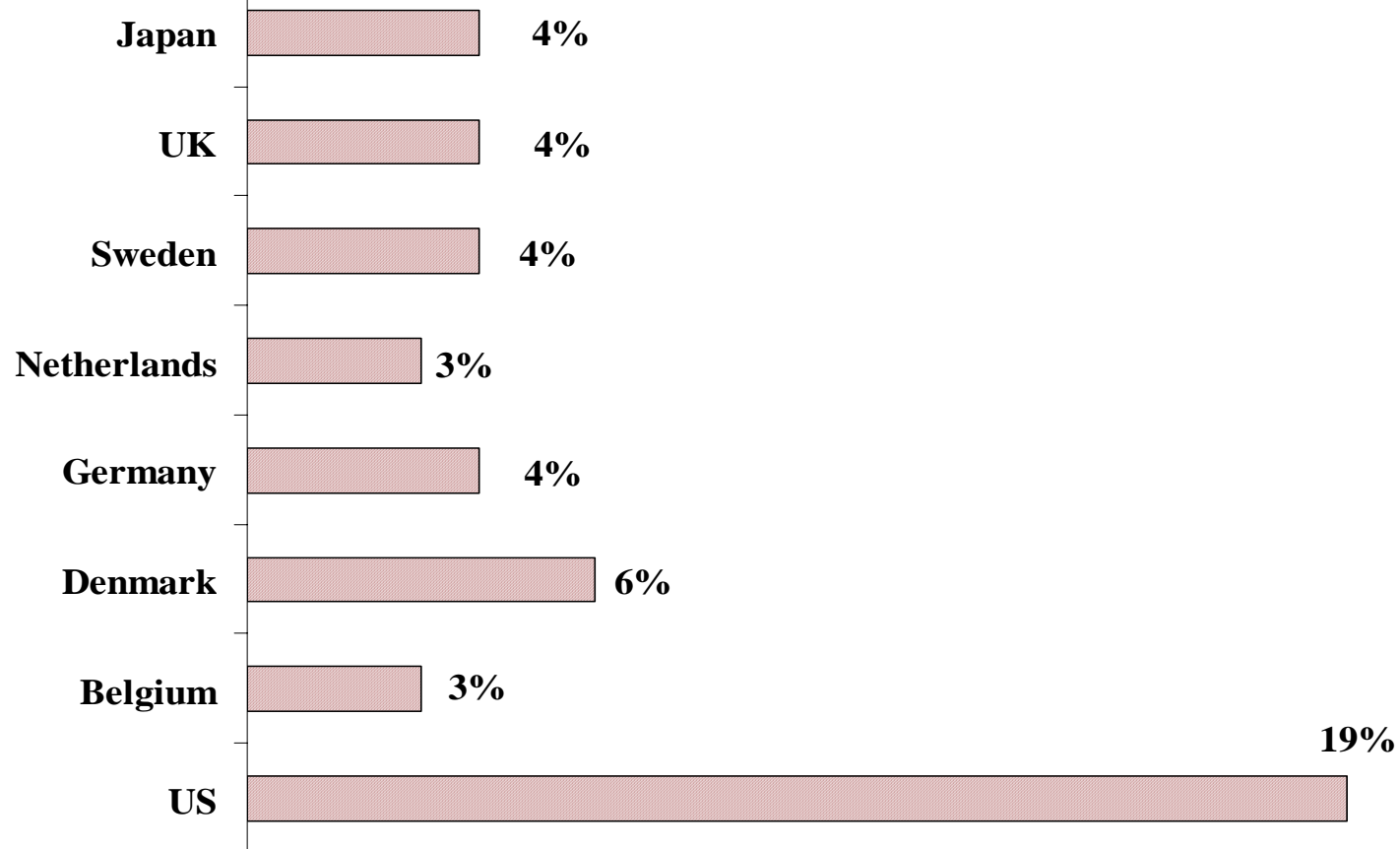
# Introduction

- There has been an increasing interest in recent years in the topic of entrepreneurship in general and what is called growth entrepreneurship in particular
- High-growth entrepreneurial companies are generating new employment opportunities. According to the UNICE Benchmarking Report\*, in the USA, 4% of all companies (the so called ‘Gazelles’) are responsible for 80% of job growth (6 million new jobs between 1991 and 1995)
- In GEM’s study the relationship between start-up rates and economic growth is strong ( $r = 0.61$ ;  $p = 0.08$ ). Assuming that start-up rates are stable over time and have an effect on economic growth, this level of association would suggest that about one-third (36%) of the variation in economic growth was due to variation in firm start-up rates

\* “Fostering entrepreneurship in Europe”, 1999.UNICE Benchmarking Report

## Some Statistics...

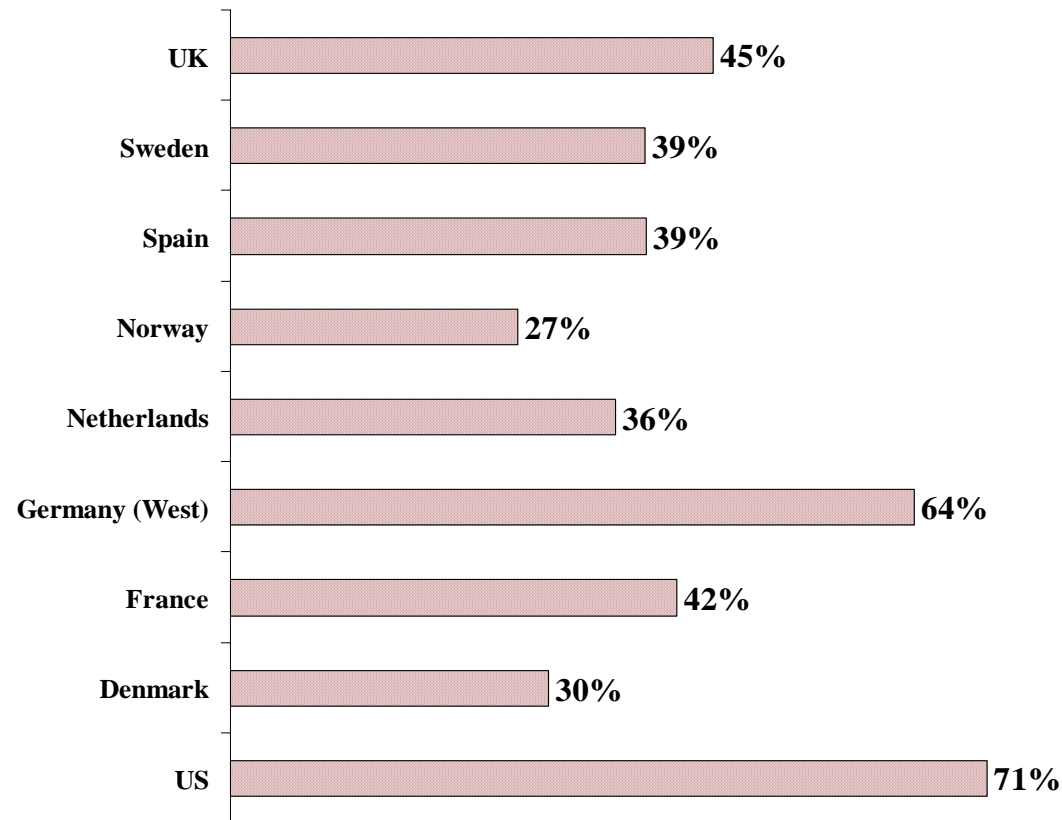
- In Europe, the number of Gazelles, expressed as a percentage of all mid-size companies, is significantly lower than in the US



\* “Fostering entrepreneurship in Europe”, 1999.UNICE Benchmarking Report

# Some Statistics...

- Percentage of people that would prefer to be self-employed versus being an employee (the Economist, February 2000):



# This Report

- EFER (European Foundation for Entrepreneurship Research) continuing with its aim of promoting entrepreneurship across Europe, has asked to develop a study comparing entrepreneurship education and its funding between the U.S. and Europe.
- This comparative preliminary study
  - analyzes where the differences lie
  - what the gap is
  - make recommendations in order to close that gap.

# **Executive Summary**

**Preliminary Results**

**Academics**

**General Trends**

# Main Findings\*

	<b>Europe (22 institutions)</b>	<b>The U.S. (47 institutions)</b>
<b>Average Endowments by School (Million Euros)</b>	<b>1</b>	<b>6</b>
<b>Average Number of Faculty by school</b>	<b>1.5</b>	<b>4.2</b>
<b>Average Number of Courses by school</b>	<b>2.5</b>	<b>7.8</b>
<b>Percentage of Chairs Funded by individuals</b>	<b>28%</b>	<b>95%</b>
<b>Percentage of Chair Funding by government</b>	<b>64%</b>	<b>0%</b>

\* Based on the FT-2000 business schools ranking

# Main Findings\*

- Based on 22 European and 47 North-American Business Schools\*, on average:
  - 👉 U.S. B-schools have **6 times** more Funds for Entrepreneurship Research than European B-schools
  - 👉 U.S. B-schools have **3 times** more professors than European B-schools
  - 👉 U.S. B-schools have **3 times** more courses in entrepreneurship related fields than European B-schools
  - 👉 U.S. B-schools receive **20 times** more funding from alumni and entrepreneurs than European B-schools

\* Based on the FT-2000 business schools ranking

# Academics

- 60% of MBA students take entrepreneurship courses both in Europe and in the U.S.
- There is a shortage of academics to fill entrepreneurship positions both in the U.S. and Europe but particularly in Europe
- Entrepreneurship is a more mature field in the US; the first chair was endowed in 1963
- Public/Private roles
  - in the US, private funding of entrepreneurship study leads the way
  - in the UK, government funding is providing the foundations for the field

# General Trends

## Europe

- Entrepreneurship is a topic with consistently growing interest among faculty and students. Without exception every school is planning to increase the number of courses, faculty and resources dedicated to this area in the next 2-5 years
- There is a shortage in stable financial resources devoted to research. This situation makes the development of the field difficult
- Entrepreneurship is less present at the Executive Education level

## United States

- Some business schools are developing a niche in entrepreneurship
- Growing numbers of US schools are offering “concentrations” or “majors” in entrepreneurship
- Entrepreneurship courses are also being offered in technology-focussed faculties particularly in the engineering departments of the more technology-oriented schools e.g. MIT, Stanford
- Entrepreneurship is a required course at some schools
- Much of the activity in the US is outside of the top-40 schools (e.g. estimates 1,400 post-secondary institutions teach entrepreneurship related courses)

**To Close the Gap...**  
**Conditions which Foster Entrepreneurship**  
**Recommendations**

# Conditions for Entrepreneurship to Flourish Based on US Experience\*

## 1. Resource Mobility

- Capital
- Products
- Labor
- Ideas

## 2. Reinvestment in Community

- Angels
- Venture Capitalists
- Employees

\*Howard Stevenson - Professor at Harvard Business School

# Conditions for Entrepreneurship to Flourish (continued)

## 3. Celebrating Other's Success

- Media
- Prestigious Institutions
- Community
- Scholars

## 4. Celebrating Change

- Social acceptance of failure
- Connected to Internet
- Loss of Protectionism Power
- Getting Government's Support
- Overcoming the fear of Science
- Changing the game

# Recommendations

- To National Governments and the European Community:
  - Recognize gazelles-Growth Plus as major job creators
  - Allow benefits to long-term risk takers and winning entrepreneurs, also through tax incentives both for start-up and growth
  - Promote and give tax incentives to chairs, centers and institutions
- To the Schools:
  - Make Entrepreneurship required course at graduate business schools, graduate technical schools and executive educational programs
  - Study and honor Alumni entrepreneurs
  - Promote incubators

# Recommendations

- To Students:
  - Consider entrepreneurship as a choice of life
  - Demand more entrepreneurship courses
  - Learn from the winners
- To Intermediaries (Venture Capitalists, Accountants, Banks, Consultants):
  - Build competence on dealing with starters
  - Support incubators and starters
  - Study and support business schools and institutions promoting entrepreneurship
- To Entrepreneurs:
  - Grow European from the start
  - Share Success
  - Give back

## **The Sample**

**Institutions Surveyed**

**American Institutions Sampled**

**European Institutions Sampled**

## **Institutions Surveyed\***

<b>Country</b>	<b>Number of schools</b>
<b>France</b>	<b>3</b>
<b>Ireland</b>	<b>1</b>
<b>Italy</b>	<b>1</b>
<b>Netherlands</b>	<b>3</b>
<b>Spain</b>	<b>3</b>
<b>Switzerland</b>	<b>1</b>
<b>United Kingdom</b>	<b>10</b>
<b>United States</b>	<b>47</b>
<b>Total</b>	<b>69</b>

**\* From MBA-2000 Annual Ranking of the world's top 75 business schools**

# Twenty two European Institutions Sampled\*

Ashridge Management College	UK
City University Business School	UK
Cranfield School of Management	UK
EAP	France
Edinburgh University Management School	UK
Esade	Spain
HEC	France
IESE	Spain
IMD	Switzerland
Imperial College Management School	UK
Insead	France
Instituto de Empresa	Spain
Lancaster University School of Management	UK
London Business School	UK
Management Center Nimbas	Netherlands
Manchester Business School	UK
Nijenrode	Netherlands
Rotterdam School of Management	Netherlands
SDA Bocconi	Italy
University College Dublin: Michael Smurfit	Ireland
University of Bradford	UK
Warwick Business School	UK

\* From MBA-2000 Annual Ranking of the world's top 75 business schools

# Forty Seven American Institutions Sampled\*

Arizona State University	Stanford University GSB
Babson College: FW Olin	The College of William & Mary
Brigham Young University	Thunderbird
Carnegie Mellon University	University of California at Berkeley: Haas
Case Western Reserve: Weatherhead	University of California at Los Angeles: Anderson
Columbia University GSB	University of California Irvine
Cornell University: Johnson	University of Chicago GSB
Dartmouth: Tuck	University of Georgia: Terry
Duke University: Fuqua	University of Iowa School of Management
Emory University: Goizueta	University of Maryland, College Park: Smith
Georgetown University: McDonough	University of Michigan
Harvard Business School	University of North Carolina: Kenan-Flager
Indiana University Kelley School of Business	University of Notre Dame
Michigan State University: Broad	University of Pennsylvania: Wharton
MIT: Sloan	University of Pittsburgh: Katz
New York University: Stern	University of Rochester: Simon
Northwestern University: Kellogg	University of South Carolina: Darla Moore
Ohio State University: Fisher	University of Texas, Austin
Pennsylvania State University: Smeal	University of Virginia: Darden
Purdue University: Krannert	University of Wisconsin-Madison
Rice University: Jones	Vanderbilt University: Owen
Southern Methodist University: Cox	Wake Forest University: Babcock
	Washington University: John Olin
	Yale School of Management

\* From MBA-2000 Annual Ranking of the world's top 75 business schools

**Findings: Entrepreneurship Education  
in Europe and the US**

**Chairs and Research Centers**

**Average Fund per School**

**Average Funding per School for Entrepreneurship Activities**

**Sources of Chair Funding**

**Course Availability**

**Faculty in Entrepreneurship**

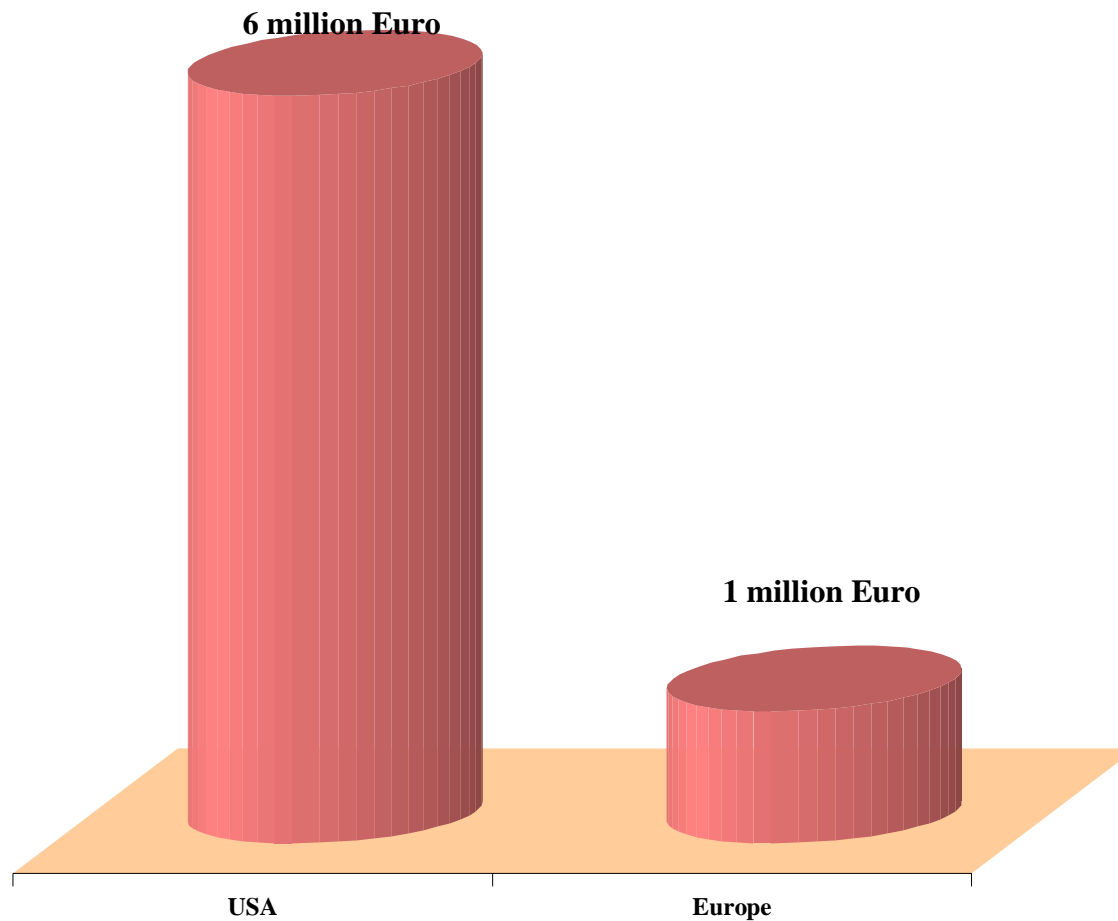
# Chairs and Research Centers

(twenty two European and forty seven U.S. business schools)

	<b>Europe</b> (at January-2000)	<b>US</b> (at May-2000)
<b>Number of Schools (in the study)</b>	<b>22</b>	<b>47</b>
<b>Number of Chairs</b>	<b>14</b>	<b>79</b>
<i>Number of Chairs per School</i>	<i>.6</i>	<i>1.7</i>
<b>Number of Research Centers</b>	<b>7</b>	<b>43</b>
<i>Number of Centers per School</i>	<i>.3</i>	<i>1.0</i>
<b>Chair and Center Funds (million Eu)</b>	<b>23</b>	<b>279</b>
<b>Average Funds per School (million Eu)</b>	<b>1</b>	<b>6</b>

# Average Fund per School

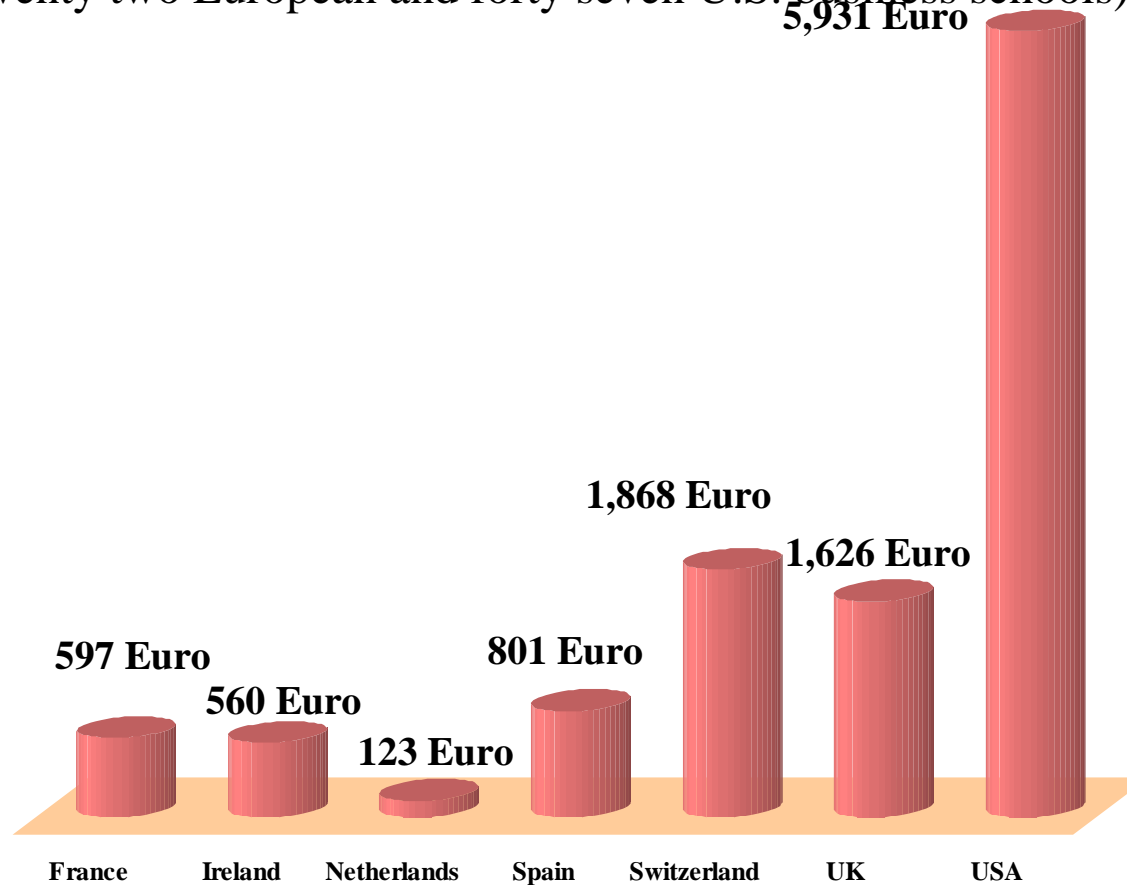
(twenty two European and forty seven U.S. business schools)



# Average Funding per School for Entrepreneurship Activities

(in thousands)

(twenty two European and forty seven U.S. business schools)



# Sources of Chair Funding

(twenty two European and forty seven U.S. business schools)

	<b>Europe</b> (22 Institutions)	<b>US</b> (47 Institutions)
• <b>Private individuals</b>	<b>28%</b>	<b>95%</b>
• <b>Government</b>	<b>64%</b>	<b>0%</b>
• <b>Corporations</b>	<b>8%</b>	<b>3%</b>
• <b>Foundations</b>	<b>0%</b>	<b>2%</b>

# Course Availability

(twenty two European and forty seven U.S. business schools)

	<b>Courses in the MBA*</b>	<b>Average per school</b>	
		<b>Seminars and Courses in</b>	<b>Executive Education Programs**</b>
• <b>France</b>	<b>10</b>	<b>3</b>	<b>10</b>
• <b>Ireland</b>	<b>2</b>	<b>2</b>	<b>2</b>
• <b>Italy</b>	<b>3</b>	<b>3</b>	<b>3</b>
• <b>Netherlands</b>	<b>9</b>	<b>3</b>	<b>1</b>
• <b>Spain</b>	<b>9</b>	<b>3</b>	<b>14</b>
• <b>Switzerland</b>	<b>2</b>	<b>2</b>	<b>6</b>
• <b>UK</b>	<b>21</b>	<b>2</b>	<b>14</b>
• <b>USA</b>	<b>367</b>	<b>8</b>	

\*aggregate data based on titles of available elective and non-elective courses

\*\*data based on available titles; unless otherwise noted, "various seminars" was compiled as 5 courses per year

# Faculty in Entrepreneurship

(twenty two European and forty seven U.S. business schools)

	Full Time		Part Time		Shared	
	Average per school		Average per school		Average per school	
• <b>France</b>	2	0.7	5	1.7	4.6	1.1
• <b>Ireland</b>	3	3	0	0	0.6	0.6
• <b>Italy</b>	0	0	0	0	4.0	4.0
• <b>Netherlands</b>	2	0.7	2	0.7	1.2	0.4
• <b>Spain</b>	7	2.3	5	1.7	1.8	0.6
• <b>Switzerland</b>	2	2	0	0	0	0
• <b>UK</b>	17	1.7	4	0.4	5.2	0.5
<b>European Average</b>		1.5		0.7		0.8
• <b>USA</b>	159	4.2	76	2.0	142	5.0

*Full time: professors teaching and doing research only in entrepreneurship*

*Part time: practitioners teaching courses in entrepreneurship*

*Shared: professors in other areas teaching entrepreneurship related courses*

# **Entrepreneurship Education in Top European Business Schools**

**European Sources of Chair Funding**

**Total European Chair Funds**

**Source of Chair Funds in Europe**

**Source of Chair Funds in the U.S.**

**Growth of MBA Programs**

**Evolution of Number of Students**

**Alumni Involvement**

**Selection of Entrepreneurship Courses**

**Relevant Future issues in Europe**

# European Sources of Chair Funding

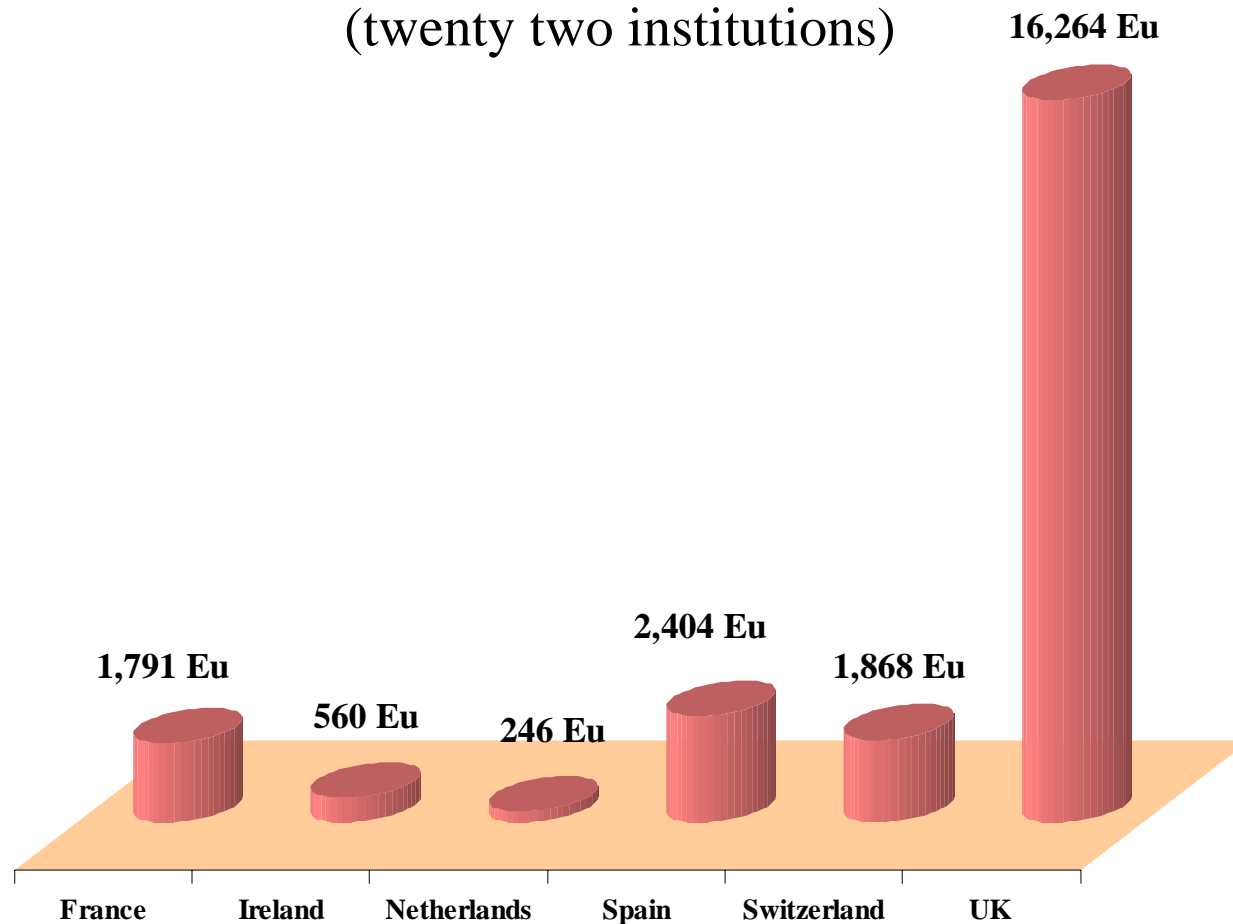
(twenty two European institutions)

Country	Number of chairs	Total Available	Individuals	Corporate	Government
• France	2	1,791,000	35%	50%	15%
• Ireland	1	560,000	100%	0%	0%
• Italy	0				
• Netherlands	2	246,000	50%	50%	0%
• Spain	2	2,404,000	70%	30%	0%
• Switzerland	1	1,868,000	90%	10%	0%
• UK	6	16,264,000	17%	0%	83%
<b>TOTAL</b>	<b>14</b>	<b>23,133,000</b>	<b>28%</b>	<b>8%</b>	<b>64%</b>

# Total European Chair Funds

(in thousands)

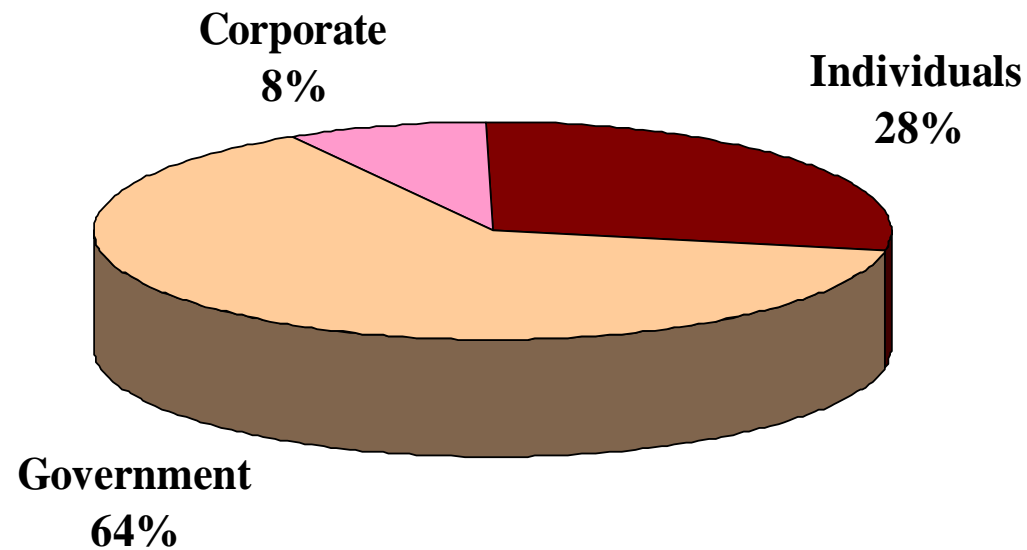
(twenty two institutions)



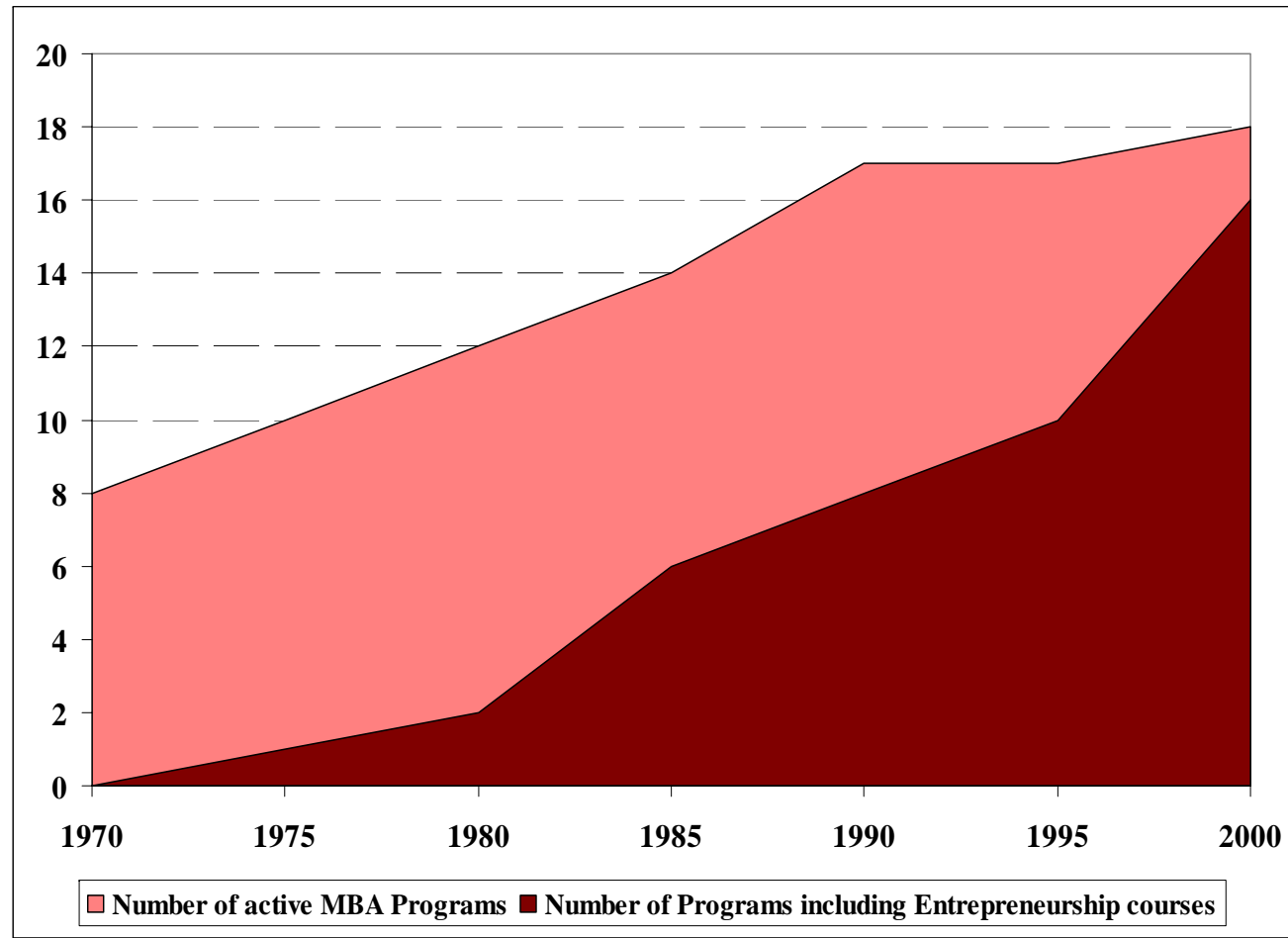
# Source of Chair Funds in Europe

(in Euro)

(twenty two institutions)

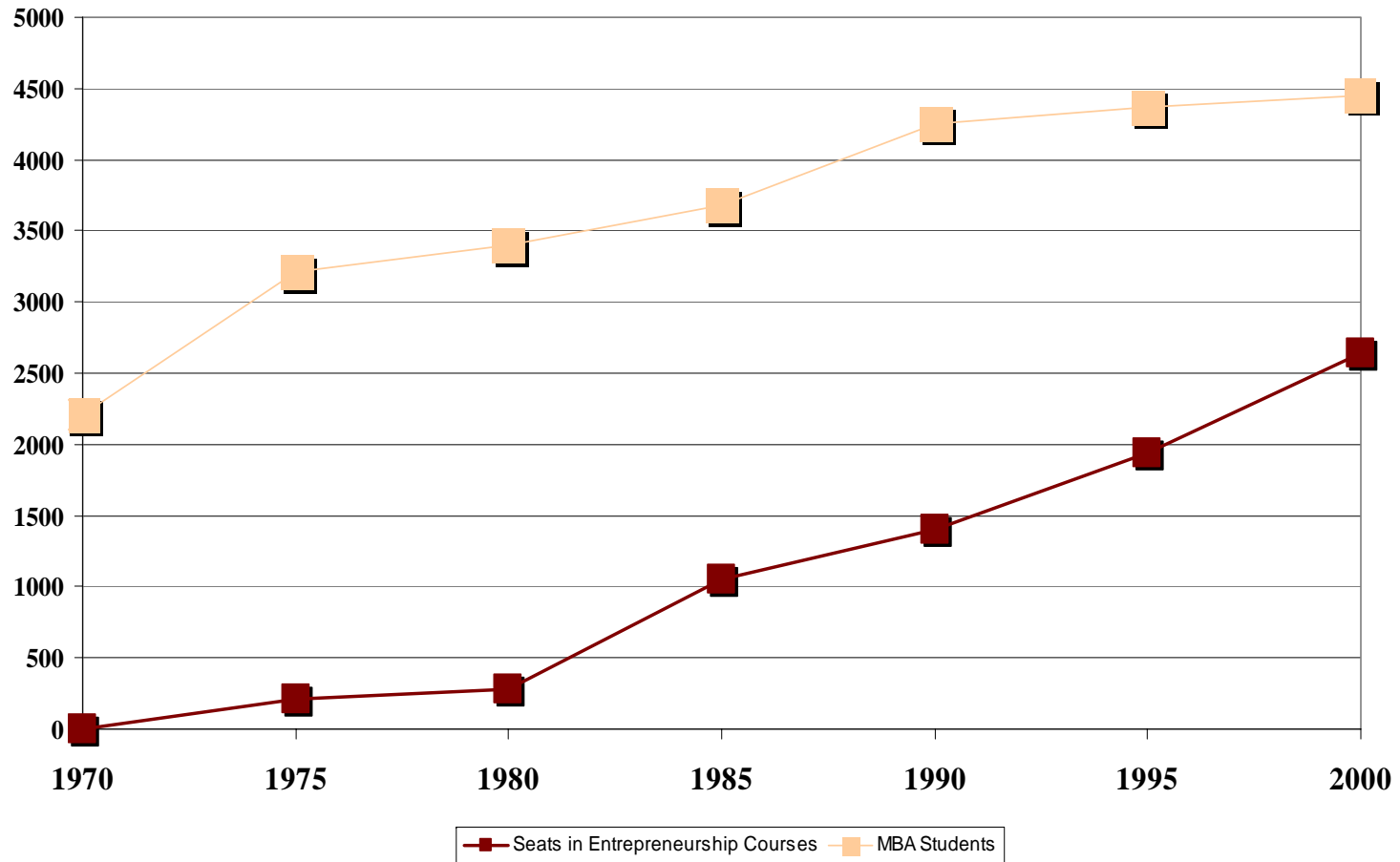


### Growth of MBA Programs vs Growth on MBA Programs including Entrepreneurship Courses (Twenty two European Business Schools)



# Evolution of Number of Students

(Twenty two European Business Schools)



# **Alumni Involvement**

(Twenty two European Business Schools)

	<b>Total Number of Schools</b>	<b>Funding Involvement</b>	<b>Class Participation Mentoring</b>
• <b>France</b>	<b>3</b>	<b>1</b>	<b>3</b>
• <b>Ireland</b>	<b>1</b>	<b>1</b>	<b>1</b>
• <b>Italy</b>	<b>1</b>	<b>0</b>	<b>1</b>
• <b>Netherlands</b>	<b>3</b>	<b>1</b>	<b>3</b>
• <b>Spain</b>	<b>3</b>	<b>2</b>	<b>3</b>
• <b>Switzerland</b>	<b>1</b>	<b>1</b>	<b>1</b>
• <b>UK</b>	<b>10</b>	<b>3</b>	<b>4</b>
• <b>TOTAL</b>	<b>22</b>	<b>9</b>	<b>16</b>

# Selection of Entrepreneurship MBA Courses

(Twenty two European Business Schools)

- General Orientation
  - Entrepreneurship and New Ventures
  - Introduction to Business Start-Up
  - Planning Your New Business
  - Feasibility Study
  - Managing Growth
  - Growing and Harvesting
  - Realizing Entrepreneurial Potential
  - Global Start-Up
  - Intrapreneurship
  - Beyond Entrepreneurship

# Selection of Entrepreneurship MBA Courses (continued)

(Twenty two European Business Schools)

- Financial Orientation
  - International Venture Capital
  - Entrepreneurial Finance
  - Buying a Business
  - Management Buy-Outs
- Technological Orientation
  - e-Entrepreneurship
  - Cyber Entrepreneurship
  - Bringing Technology to the Market
- Specific Electives
  - Essential Law for Business and Entrepreneurs
  - Entrepreneur Today
  - Writing and effective Business Plan
  - Setting Up a Franchise
  - Business Plan Evaluation

# Selection of Entrepreneurship Courses at the Executive-Education Level

(Twenty two European Business Schools)

- General Orientation
  - Business Growth and Development Program
  - Corporate Entrepreneurship Seminars
  - Seminar for Entrepreneurs
  - "Spinout Workshop" to introduce how to write effective business plan
  - Innovation Seminars
  - Planned Accelerated Company Expansion
  - Challenge:Start-Ups
  - Owner Director Program
  
- Specifics Electives
  - Seminar on Entrepreneurship specific Electronics, Research and Biotech
  - Technology Transfer Course
  - Teaching/Consulting Course for boosting high tech companies
  - Entrepreneurship and Venture Capitalists

## Relevant Future Issues in Europe

- Seventy five percent of the schools are actively looking for new faculty
- Sixty percent of the schools are looking for funding
- Thirty percent are planning new partnerships to develop new courses
- Twenty per cent will create incubators
- Germany has seventeen new Chairs most of them empty
- East European Countries are creating new Programs. Three schools are completely focus on the Entrepreneurship field:
  - Academy of Entrepreneurship and Management (Poland)
  - GEA College of Entrepreneurship (Slovakia)
  - Bulgarian Association for Management Development and Entrepreneurship

## **Best Practices**

**The Cambridge Phenomenon: the power of networks**

**ETH-Zurich. Technology Transfer: from the lab to the market**

**The MIT-Enterprise Forum**

**The Price-Babson College Fellows Program**

# The Cambridge Phenomenon

- Characteristics for high technology regions:
  - Universities and centers of academic excellence
  - Entrepreneurs with remarkable ideas and products
  - Business Angels and established seed funds
  - Sources of early stage venture capital
  - Core of successful large companies
  - Quality management teams and talent
  - Supportive infrastructure
  - Affordable space for growing business
  - Access to capital markets
  - Attractive living environment and accommodation

Source: Gibbons - Stanford University 1998. Alan Barrel. N.W. Brown

# Cambridge and the Easter Region

## The Cambridge Phenomenon

- Universities:
  - Cambridge, University of East Anglia, Anglia Polytechnic University, Essex, Hertfordshire and others
- Technology Providers
  - PA Technology, Technology Partnership, Cambridge Consultants, Scientific Generics, TEAM Consulting, Symbionics, Analysys, John Inness Centre, MRC, BT, Nortel, Microsoft, ATT, Hewlett Packard, Hitachi and Glaxo Wellcome
- Science Parks and Incubators
  - Trinity, Grnata, St. Johns, Ely Business, Melbourn, Hinxton, Babraham, Norwich Science Park, Peterhouse

# Cambridge and the Easter Region

## The Cambridge Phenomenon

- Source of finance - locally based funds
  - Business Angels: The Great Eastern Investment Forum
  - Seed Funds: Cambridge Research and Innovation Ltd, Generics Asset Management, QTP
  - Venture Funds: 3i, Prelude, Amadeus, The Gateway Fund, Avlar BioVentures, TTP Ventures
- Cambridge-MIT Joint Venture on Entrepreneurship Institute  
\$125 M Government supported Investment

# Cambridge and the Easter Region

## The Cambridge Phenomenon

- Results:
  - 1,200 technology companies, employing 37,000 in Cambridge
  - 25% of techMARK based in the Region
  - No.1 for R & D in Europe
  - Cambridge University spin-off 16% of Cambridge hi-tech star-ups
  - Estimates of 4 -6 spin-off per annum in 1990's
  - 50% of Cambridge Region hi - tech firms report research links with University

Source: Alan Barrel. N.W. Brown

# ETH - Zurich

- The University in 1998:
  - Founded in 1855
  - 19 academic and research departments
  - 3,000 courses in science and technology
  - 5,395 professors
  - 11,819 students
  - Total of 143 research projects with industry (11,084 M CHF)

# ETH-Zurich

- ETH - Transfer Service

- Clearing house, putting scientists and key individuals in industry in touch with each other
- Support in the commercialization of research results by submitting applications for patents and negotiating licenses
- Help in the creation of spin-off companies. The University offers infrastructure and economic support to entrepreneurs
- Run the Business Plan Competition with McKinsey for the whole University to create a pool of viable propositions
- ETH - Transfer Service is financed by the University, the industry and the licensing of new products (due to Swiss laws, universities can not take equity from their spin-offs)

## The MIT-Enterprise Forum

- The MIT Enterprise Forum promotes the formation and growth of innovative and technologically-oriented companies through a series of specialized executive education programs.
- Founded in 1978, the MIT Enterprise Forum operates through an enterprise network of 22 chapters based in the U.S. and overseas.
- Member chapters are formed around a core group of MIT graduates and each chapter is run by a volunteer board of experienced entrepreneurs, corporate executives, university professors and industry leaders.
- Membership and program participation is open to all (non-MIT graduates, friends of MIT, local business executives and entrepreneurs).

# The MIT-Enterprise Forum

- Forum Programs

- Forum chapters offer advice, support and educational services for local area emerging technology-based companies. Programs may include:
  - professional seminars
  - startup clinics
  - case presentations
  - business plan workshops

- Networking Opportunities.

- Among the most valuable uses of Forum activities is the opportunity to network with a variety of business professionals including:
  - venture capitalists
  - private investors
  - industry experts
  - other successful entrepreneurs

# The Price-Babson College Fellows Program

- Jointly established by the Blank Center for Entrepreneurship at Babson College and the Price Institute for Entrepreneurial Studies in 1984
  - spinoff programmes now in Scotland, Slovenia, Poland and Australia
- Brings together academics and practitioners in the “Symposium for Entrepreneurship Educators”
  - the programme invites 25 teams of academics and entrepreneurs
  - over 500 individuals from 175 colleges and universities around the world have participated
- Edwin M. Appel Prizes awarded annually to programme alumni who bring “entrepreneurial vitality to academe”

# **Appendix 1: Entrepreneurship Education at US Post-Secondary Institutions**

## Activity in the US\*

- Post-secondary institutions with entrepreneurship courses: 1400 (est)
- Post-secondary institutions with entrepreneurship programmes\*\*: 100 (est)
- Research centers for entrepreneurship-related studies identified to date:
- Endowed faculty / research positions in entrepreneurship and related activities\*:
  - First endowed faculty position established in 1963.

\*This is based on a broader study of entrepreneurship education in the US and includes non-MBA programs

\*\*“Program” defined as 3+ courses leading to a degree

## **Activity in the US cont'd\***

- **Activities supporting entrepreneurship education:**
  - venture capital funds for students
  - business plan competitions
  - conferences
  - professional and student organisations
  - academic journals

\*A significant number of these positions are unfilled due to a shortage of academics specializing in this area

# Overview of Funding

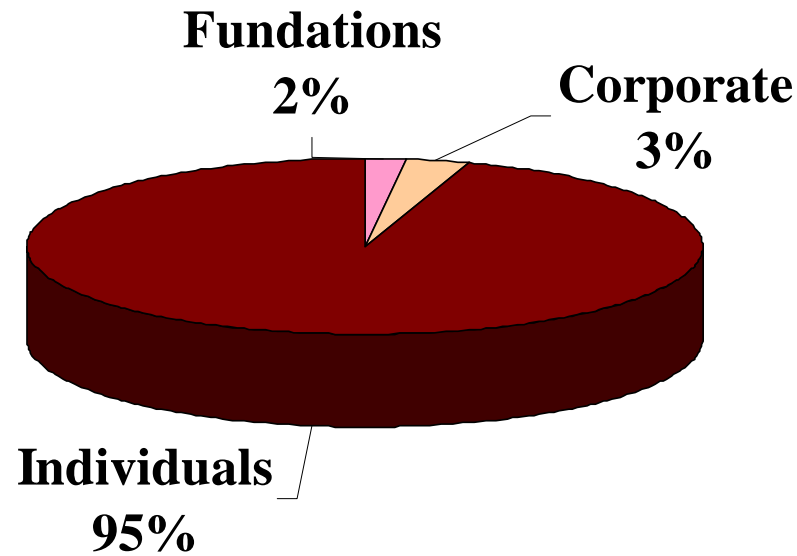
- Capital in support of entrepreneurship education: \$1.4 Billion (estimated)
  - Over \$1 B in assets held by Non-Profit Foundations, including:
    - The Ewing Marion Kauffman Foundation
    - The Coleman Foundation
    - The Edward Lowe Foundation
    - The Price Foundation
  - Some 400 million endowed to Post-Secondary institutions **INCLUDING Graduate Schools**:
    - this value is understated
      - does not include additional donations
      - does not include gains reinvested
      - does not include donations to be allocated to the school's discretion

# **Sources of Funding**

- **Private Individuals**
  - by far, the largest source of funds for US private colleges
  - schools' development offices actively target alumni, and to a lesser extent, local business people
- **Businesses**
- **Foundations**
  - tend to provide programme support, grants for conferences, chairs in less well-funded schools, funding for students
- **Government**
  - mainly at the state level for 2nd-tier schools in the form of matching funds

# Source of Chair Funds in the U.S.

(in Euro)  
(forty seven institutions)



# **Key US Foundations Supporting Entrepreneurship Education**

## **The Ewing Marion Kauffman Foundation**

- Established in 1966 in Kansas City, MO
- 1988 Assets: \$1.6 B; Distributions: \$36.6 M
- Focus
  - Youth Development (50%)
  - Entrepreneurial Leadership (50%)
- Kauffman Center for Entrepreneurial Leadership, Inc.
- Institute for Leadership Education

## **The Coleman Foundation**

- Established in 1951 in Chicago, IL
- 1998 Assets: \$140 M; Distributions: \$3.4 M
- Focus
  - Education programs focusing on developing awareness of self-employment (2/3)
  - Cancer research and care (1/3)

## **The Edward Lowe Foundation**

- Established in 1985 in Cassopolis, MI
- 1999 Assets: \$127 M; 1995 Distributions: \$1.9 M
- Focus
  - Support of small business and free enterprise

## **Price Institute for Entrepreneurial Studies**

- Established in 1979 in New York, NY
- 1997 Assets: \$4.8 M; 1996 Distributions: \$2.3 M
- Focus
  - Support of centers of entrepreneurial studies and institutions of higher education
  - Research and education related to entrepreneurship

# Selected Organisations Supporting / Teaching Entrepreneurship

- Boettcher Foundation
  - grant supporting U of Colorado endowment
- Consortium for Entrepreneurship Education (Ohio State U)
- Continental Group
  - Excellence in Education Program grants (DePauw's McDermod Centre, NYU's entrepreneurship centre)
- Distributive Education Clubs of America (Reston, VA)
- Entrepreneurial Foundation (U of Colorado)
- Family Firm Institute
- Freedoms Foundation (Valley Forge, PA)
  - Leavey Awards for Excellence in Private Enterprise Education (\$2 M endowment) for for high-school or college instructors
- Future Business Leaders of America-Phi Beta Lambda (Reston, VA)
- Illinois Institute for Entrepreneurship Education
- Junior Achievement (Colorado Springs, CO)
- Thomas & Dorthy Leavey Foundation
  - \$2 M endowment to the Freedoms Foundation
- The National Foundation for Teaching Entrepreneurship (NYC)
- REAL Enterprises Inc (Durham, NC)
- US Association for Small Business & Entrepreneurship
  - National Model Entrepreneurship Program awards

# **Information Sources**

- Vesper & Gartner - University Entrepreneurship Programs 1999
- Robinson & Haynes - Entrepreneurship Education in America's Major Universities (1991)
- Jerome Katz - Endowed Positions: Entrepreneurship & Related Fields (1991)
- The Foundations Directory 1999
- Jerome Katz's website [www.slu.edu/eweb](http://www.slu.edu/eweb)
- The Ewing Marion Kauffman Foundation - interview with Ray Smilor, VP
- Edward Lowe Foundation - interview with Mark Lange, Programme Director
- University of Southern California - interview with Professor William Gartner
- St. Louis University - interview with Professor Jerome Katz
- University of British Columbia - interview with Daniel F. Muzyka, Dean-Faculty of Commerce and visiting professor at INSEAD
- Stanford University - interview with Libby Driscoll-Hlavka, Director of Programs & Administration, Center for Entrepreneurial Studies
- Massachusetts Institute of Technology - interview with Matthew Utterback, Program Manager, The MIT Entrepreneurship Center
- University web-sites
- Lexis-Nexis database
- Paul Reynolds, Michael Hay and S.Michael Camp: Global Entrepreneurship Monitor (GEM) - 1999 Executive Report
- EFMD, Philippe Albert Report
- IESE University of Navarra, Juan Roure, EFER-Academic advisor
- UNICE report 1999: Fostering Entrepreneurship in Europe
- UNICE report 2000: Stimulating Creativity and Innovation in Europe

## **Appendix2 : Report's Methodology**

# Methodology

- The statistical analysis and comparison encompasses 69 business schools: twenty two European and forty seven U.S. business schools
  - The sample is based on the Financial Times of London as ranking of the 75 top full-time international MBA programmes
  - The use of this list is not an endorsement of the Financial Times' rankings. Rather, the objective in selecting this sample is to avoid making arbitrary decisions of which institutions to include from sets of competitive rankings exercises
  - The sample has twenty two European Business Schools from seven different countries, forty seven schools from the United States and six from Asia and Australia. We have excluded the Asian and Australian institutions

# Europe

- Best practices and general trends have been drawn from collected information on 31 European Business Schools and Universities including
  - twenty two ranked by Financial Times-2000
  - Cambridge University-Judge Institute of Management Studies, Oxford University-Saïd Business School, ETH-Zurich, St. Gallen University-Graduate School of Business, Ceram-Sophia Antipolis,, Ecole of Management Lyon, the Vlerick Business School, the European Business School, RWTH-Aachen.
- Sample Selection:
  - The study encompassed 31 Business Schools and Universities
  - The sample size is 22 schools identified by the Financial Times to be amongst the top 75 full-time international MBA programs\*. All of them were contacted and direct information was provided. The other nine programs were included in the field research to reflect some best practices but were not included in the statistics

\* M. Julia Prats, Doctoral Candidate at Harvard Business School conducted the European-based research

## Europe (continued)

- Principal Sources of Information:
  - Twenty business schools and Universities were visited
    - A standard questionnaire was developed
    - All interviews were led by M. Julia Prats and lasted between 45 and 90 minutes.
    - The interviewee was the Dean at the business school in 12 cases and in 8 cases the interview was with the person responsible for the entrepreneurship field
  - Eleven Universities were evaluated based on phone interviews with the Dean of the school
  - Venture Capitalists in the UK and in the Netherlands, a company promoting entrepreneurship in Munich (FNT) were interviewed but results are not included in this version of the report
- Other Sources of Information:
  - Professor Howard Stevenson, Harvard University
  - School Brochures
  - School Web Sites

# United States

- Sample Selection:
  - The study identified some two hundred and ninety post-secondary institutions in the United States
  - The sample size includes 47 schools ranked by the Financial Times to be amongst the top 75 full-time international MBA programs\*
- Principal Sources of Information:
  - The Deans or Directors of entrepreneurship programs at the 47 schools were surveyed by e-mail
  - Professor Jerome A. Katz (St. Louis U)'s web-site focussed on professorships in entrepreneurship
  - Professors Karl H. Vesper (U. of Washington) and William B. Gartner (U. of Southern California)'s survey of "University Entrepreneurship Programs - 1999" School Web Sites
  - Archival Research

\*Wilma W. Suen, PhD Candidate at the Fletcher School of Law & Diplomacy, Tufts University conducted the US-based research

## Caveats

- The Financial Times ranking has been chosen because is a way to have comparable schools between USA and Europe. While this decision excludes a number of schools in the entrepreneurship field, it is a way to identify comparable schools
- Definitional problems make it very difficult to accurately compare of data. Therefore results point out trends rather than more specific issues.
- This is a preliminary report. Given sample bias, results can not be generalized to the whole population of Business schools. More research must be conducted to apply the results of the study to entrepreneurship studies in Europe and in the United States