



From Science to Business

BARCELONA



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1.1 OVERVIEW

Today's global economy and business are facing a tremendous challenge: how to transform research, the money invested and the resources provided to laboratories and scientific parks into new innovations to create new products and services that can lead to the improvement of the life of individuals and society as a whole.

One of the main barriers encountered is the “distance” between researchers and the business world. This distance is not usually physical, it is simply a lack of knowledge on both sides.

Minimizing this distance would, without a doubt, **improve the returns to society** on the money invested in R&D.

The participation of the scientist behind the invention and/or the researchers who decide to pursue a professional career in developing new businesses will significantly increase the odds of a successful new company.



1.2 PARTICIPANTS

This is aimed at researchers, senior researchers, postdoctoral fellows and last year doctoral students as well.

It is also addressed to managers in charge of research labs, scientific parks, innovation or R&D departments, and for decision makers in regional policy.

This course aims to **increase the speed of turning innovation and knowledge into new ventures**. The course is designed for groups of approximately 20-25 people to ensure optimal participation, learning and faculty-to-participant ratio.

1.3 LEARNING OBJECTIVES

The **From Science to Business** Program will prepare participants to:

- To **get acquainted with the business world**, and to show how companies create value to society and for themselves: providing more, better and healthier food, a cleaner, healthier and more safety environment, a longer and better quality of life, wealth, etc.
- To provide with a framework to understand **how companies work** and **how they create value** in a competitive environment.
- To **help to understand the new venture creation process**, and the role that science/technology plays in it.
- To show that **new venture creation needs scientists and engineers**, and that entrepreneurship can be an attractive career path for them.

1.4 KEY TAKEAWAY

How to find and evaluate business ideas.

- How to analyze the environment, the industry and the market to understand the idea.
- Methods to differentiate between an idea and an opportunity.
- How to craft and validate a suitable business model.
- Basics of competitive strategy, and how to get your clients to continuously choose you instead of your competitors.
- Basic understanding of the interrelationship between science/technology and strategy.
- Basic tools for market analysis and consumer understanding.
- Basics of B2B marketing.
- Frameworks for designing marketing plans.
- Understanding financial statements: profit and loss account, cash flow and balance sheet.
- Methods to estimate the capital requirements of the venture: the financial plan.

02

Schedule & Contents

2.1 SCHEDULE

May 29 – June 1, 2017

- **Welcome event:** May 29 at 17:00h
- IRB Barcelona (Carrer de Baldiri Reixac, 10-12, 08028 Barcelona)
 - Students will get to know each other
 - Round table discussion with local entrepreneurs including **Jordi Carrera** (CEO, STAT Diagnostica), **Carles Puente** (Co-founder and Vice President Innovation, Fractus Antennas), **Neus Sabaté** (CEO, Fuelium), and **Teresa Tarragó** (CEO, iProteos).
 - Refreshments & networking
- **Classes:** May 30 – June 1 from 9:00h to 18:30h
- ESADE Barcelona, Pedralbes Campus, Building 3, Av. Esplugues, 92-96, E-08034

Additional details will be sent to participants prior to the course





From SCIENCE to BUSINESS
(ICFO 7th Program Edition - BIST 2nd Program Edition)



ESADE Business School. Building 3 (Avda. Esplugues 92-96. Barcelona)
Room ¿?. Floor

| MODULE | "INNOVATION & STRATEGY" | "ENTREPRENEURSHIP" | "ENTREPRENEURIAL FINANCE" |
|-------------|--------------------------|----------------------------|---------------------------|
| Schedule | Tuesday, May 30th , 2017 | Wednesday, May 31st , 2017 | Thursday, June 1st, 2017 |
| 9:00 | 9:00 | 9:00 | 9:00 |
| | Xavier Ferràs | Jordi Vinaixa | Luisa Alemany |
| 10:30-11:00 | Coffee Break | Coffee Break | Coffee Break |
| | Xavier Ferràs | Jordi Vinaixa | Luisa Alemany |
| 14:00-15:00 | Lunch | Lunch | Lunch |
| 15:00 | 15:00 | 15:00 | 15:00 |
| | Xavier Ferràs | Jordi Vinaixa | Luisa Alemany |
| 17:00-17:15 | Coffee Break | Coffee Break | Coffee Break |
| | Xavier Ferràs | Jordi Vinaixa | Luisa Alemany |
| 18:30 | Fin de la sesión | Fin de la sesión | Fin de la sesión |

2.2 CONTENTS

Innovation & Strategy

- Provide a framework to understand the company from a strategic point of view
- Provide tools to analyze the general environment
- Understanding the role of innovation in framing strategy

Entrepreneurship

- Understand the process of developing and managing a scientific new venture
- Learning and practicing how to design and validate a business model for a new science business
- Learning how to prepare and use a business plan

Entrepreneurial Finance

- Understand the financial needs of a venture
- Learn how to develop a Financial Plan, estimate cash flows and determine the financial needs
- Get to know the financial resources for a science-based new venture

2.2 CONTENTS

Innovation & Strategy

This module will provide a framework for understanding the company from a strategic point of view, the tools to analyze the general environment and the industry and a model for strategic management.

Module contents:

- Different business strategy options and the search for a competitive advantage.
- The Industry and the Company Value Chains.
- Key Success Factors.
- Mechanisms for growth.
- Science/technology and strategy interrelationship.

2.2 CONTENTS

Entrepreneurship

This module will focus on two main issues in Entrepreneurship – firstly, the context, in which a scientific venture is established and operates and, secondly, the process of developing and managing a new venture.

Module contents:

- Understanding the process of building a science-based new venture.
- From ‘the idea’ to ‘the opportunity’: assessing the opportunity.
- Designing a suitable business model for the opportunity.
- The business plan: how to prepare and use it.

2.2 CONTENTS

Entrepreneurial Finance

This module will be dedicated to one of the most challenging and difficult activities that an entrepreneur must embark upon: understanding the financial needs of the venture.

Module contents:

- Understanding the financial statements: profit and loss account, cash flow and balance sheet.
- Methods to estimate the capital requirements of the venture.
- Preparation of the Financial Plan.
- Financial resources for an innovative new venture: business angels and venture capital.

2.2 CONTENTS

Cases

Throughout the program, cases related to technology and biotech businesses and start ups will be used.

ESADE will work with science based entrepreneurs in order to explore the possibilities to incorporate some parts of their experiences into the course. This will allow the students to see examples of entrepreneurship specifically related to science.



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**Faculty & Academic
Direction**

3.1 FACULTY AND ACADEMIC DIRECTION



Jordi Vinaixa

Associate Professor, Department of Strategy and General management.
PhD in Chemistry (University of Barcelona) and MBA (ESADE).

His main subjects of interest are Innovation and Technology based
Entrepreneurship.

He did research in chemistry at the Universities of Barcelona and of
Sussex, and has previous professional experience as a manager in the
chemical, education, cultural and service industries.

Academic Director of the ESADE courses for the KIC InnoEnergy.
Running *From Science to Business* and other science and technological
related courses and activities since 2005.

3.1 FACULTY AND ACADEMIC DIRECTION



Luisa Alemany

Associate Professor, Finance Department at ESADE.

PhD in Economics and Business from Universidad Complutense and MBA from Stanford University.

Director of ESADE Entrepreneurship.

Co-director of the Business Angels Academy .



Xavier Ferràs

PhD in Economics and Business from UB and MBA from ESADE and Telecommunications Engineer from UPC.

Dean of the Faculty of Business and Communication at the University of Vic.

Until 2012, he was Director of the ACC10 Centre for Business Innovation (Catalan Agency for Competitiveness), and was responsible for technology transfer policies, R&D and development of clusters in Catalonia.

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ESADE

4. ESADE

- The From Science to Business course was created in 2016 by the BIST institutes. The 2017 edition is presented for the second time as a joint BIST initiative.
- Since 2010 course delivered for the KIC InnoEnergy in collaboration with the European Institute of Innovation & Technology (EIT)
- International teams of MSc and/or PhD students
- 15 editions
- More than 375 participants from 20 nationalities





4. ESADE

International PRESTIGE

ESADE is one of the top-10 business schools in Europe according to the main international rankings.

RECOGNIZED by Companies

ESADE the 1st (most highly valued) international business school by companies.

INNOVATIVE with Regards to Learning

ESADE's learning model, based on the development of managerial skills and competencies, is a pioneer in Europe.

COMMITTED to Society

ESADE is the second most highly ranked business school in the world for the corporate social approach and ethics of its MBA . Its Institute for Social Innovation is the cornerstone of our social commitment.



Creates LINKS with People

ESADE is the business school with the second largest alumni association in Europe (with more than 40,000 alumni).

HIGH QUALITY, Relevant Learning

ESADE's commitment is to provide high quality, relevant learning for companies that translates into results.

Top-Nontech FACULTY with Business Experience

ESADE has a widely recognized faculty, that on top of developing high-quality research, has also relevant business experience

4. ESADE

- ESADE and CERN are collaborating in **ATTRACT**, a new, open, pan-EU initiative to accelerate the development of detector and imaging technologies for market – through a process of co-innovation with other labs, SMEs, industry and universities.
- The aim: to work with scientists, students, entrepreneurs and investors to invent new services and products, and attract new investment to the sector.
- A pilot effort is already underway at CERN’s Geneva campus, in collaboration with ESADE and Aalto.



<http://www.attract-eu.org/>



[Financial Times Article on
ESADE's educational activities
with CERN](#)

