



# From Science to Business

BARCELONA



Organized by:



Barcelona Institute of  
Science and Technology





# 1. MOTIVATION AND OBJECTIVES

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.



## Participants

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This program 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

# Learning Objectives

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The *From Science to Business* programme 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.

## Key Takeaways

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- 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.

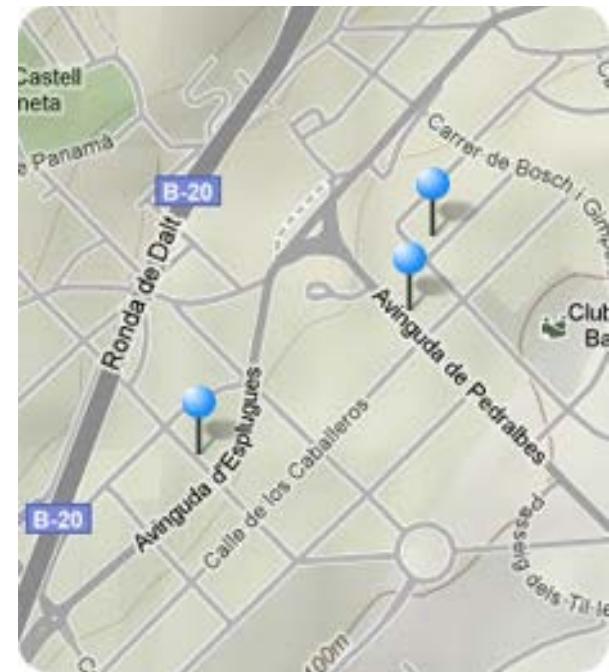
# Schedule and Location



One 8-hour session every day for 3 consecutive days. 09:00 to 18:30h

May 31 , 1 and 2 June 2016. (On the evening of 30 May there will be a networking session at a venue to be determined.)

Avd. Esplugues 92-96 08034 Barcelona





## 2. CONTENTS

# From Science to Business

## Structure



### 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

# From Science to Business

## Specific 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.

## 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.

### 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.

## *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.

Email: [jordi.vinaixa@esade.edu](mailto:jordi.vinaixa@esade.edu)



## *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 program.

## *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.

Participants in the *From Science to Business Programme* will additionally have free access to activities and events related to entrepreneurship within the ESADE Continuity Programme. A sample of the activities offered in 2014-15:



### 'Design thinking para la innovación', a cargo de la profesora Lotta Hassi

El *design thinking* ha ido ganando un gran interés en el mundo de los negocios en los últimos diez años. Se trata de una metodología de innovación derivada de las disciplinas de diseño que ahora es ampliamente utilizada por empresas grandes y pequeñas, y por gobiernos como el de Singapur. En esta sesión se examinó el concepto de *design thinking* y cómo ha sido utilizado este enfoque en la práctica para diseñar nuevas ofertas, mejorar la experiencia del cliente o crear una cultura de innovación.



### Emprendimiento corporativo e innovación abierta en el sector químico: el caso Henkel-Afinitica (profesor Jordi Vinaixa)

Es una obviedad que el entorno competitivo en que las empresas desarrollan su actividad las obliga a pensar en la innovación como solución a ese reto competitivo. Lo que ya no es tan evidente es cómo gestionar la innovación, de forma que contribuya efectiva y eficientemente a hacer más competitiva la empresa y asegurar su pervivencia a medio y largo plazo.

Una de las vías de alinear la innovación con el crecimiento empresarial son las estrategias de innovación abierta (open innovation) y de emprendimiento corporativo (corporate entrepreneurship). Además, el sector químico, por sus propias características, no ofrece muchos ejemplos públicos de dichas prácticas. Afinitica es una spin-off de Henkel, dedicada a desarrollar nuevos productos y mercados en el sector de los adhesivos, creada y liderada de forma independiente por un equipo de ejecutivos senior procedentes de Henkel AG.



## Métricas clave para start-ups, a cargo del profesor Jan Brinckmann

¿Por qué es tan importante medir el avance de una start-up en base a las métricas? ¿Cuáles son las métricas qué mejor se adaptan a un negocio? Establecer un sistema de métricas facilita que una start-up pueda tomar decisiones rápidas, basadas en el análisis de los datos. En esta sesión, se hablará sobre la importancia de las métricas y se explicará cuáles son las más adecuadas y en qué momento deben aplicarse.



## Workshop: 'Los in-law de la familia empresaria', con el profesor Alberto Gimeno

El foco de atención de esta sesión fué identificar algunas claves que ayuden a entender el papel relevante que representan los 'in-law' en el desarrollo positivo de la generación actual y de las futuras de la familia empresaria: los hijos. Asimismo, se analizaron las posibilidades que ofrecen tanto la empresa familiar como el patrimonio para ayudarnos a avanzar en este trascendente cometido.



## Cómo establecer la valoración de una start-up, a cargo de Luisa Alemany

¿Alguna vez te has preguntado cómo empresas sin clientes pueden valer más de un millón de euros? ¿Te interesa invertir en start-ups pero no sabes cómo valorarlas? ¿Estás buscando financiación para tu nueva aventura empresarial pero no estás seguro de qué porcentaje de la compañía deberías negociar con los inversores? En esta sesión intentaremos desvelar el secreto de estas preguntas y entrar en el misterioso mundo de la valoración de start-ups.

## Emprendimiento corporativo: liderando la supervivencia empresarial (profesor Jordi Vinaixa)

Las organizaciones tienen el reto de transformarse para pervivir a largo plazo, si bien esta necesidad se activará según sea percibida por las personas que las conforman. Para lograr el cambio y la transformación organizativa es necesario generar condiciones que potencien el intraemprendimiento por parte de los equipos. Estas condiciones crean el ecosistema en el que aflora el emprendimiento corporativo como la pieza básica de la supervivencia empresarial.

# Access to financing ideas



BIST projects can be introduced in the deal flow of ESADE Business Angel Network and to the general or specific accelerators managed by ESADE or ESADECRAPOlis such as:



## PROGRAMA EMPENTA

El Programa EMPENTA, coorganizado por ACCIÓ, ESADE Creapolis y el ESADE Entrepreneurship Institute, tiene como objetivo tutelar de forma integral y experta todas las etapas que intervienen en el proceso de creación de una empresa, desde la fase inicial hasta su consolidación.

EMPENTA cuenta con la financiación de ACCIÓ y no tiene ningún coste para los participantes. El programa trabaja sobre tres ejes principales entre los que destaca el trabajo en equipo, donde se alinea y se focaliza en el equipo emprendedor. A continuación acompañamos a la empresa durante su desarrollo y la validación del Plan de Negocio, y finalmente establecemos sus necesidades de financiación mediante un plan de financiación público y privado.



## Foro de Inversión Healthcare Barcelona 2015

Coorganizado por ESADE BAN, el Colegio Oficial de Médicos de Barcelona, Barcelona Activa - Ayuntamiento de Barcelona y Biocat.

Punto de encuentro entre empresas con proyectos de biotecnología, equipamientos médicos, servicios sanitarios y tecnologías de la información relacionadas con la salud, e inversores interesados en el sector. Se podrán presentar todo tipo de empresas (early stage) o equipos con proyectos innovadores de desarrollo de negocio correspondientes al sector salud (healthcare).



## Foro de Inversión CleanTech

Coorganizado por ESADE BAN, la Fundación Repsol y KIC InnoEnergy

Punto de encuentro entre inversores y emprendedores del sector de las tecnologías limpias (clean technologies) relacionado con energías renovables, la eficiencia y el ahorro energético, tratamiento de aguas y residuos, compostaje y otros aspectos relacionados con el medio ambiente. Su finalidad es encontrar financiación por parte de inversores privados.

BIST participants will be invited to submit projects or products to the Innovation forums that will be organized during the academic year.

The innovation forums are meeting places where researchers with ideas and ESADE management students that have to prepare a project for the creation of new business meet each other to collaborate.

Some of the centers that have already participated in these activities are:



The Institute  
of Photonic  
Sciences



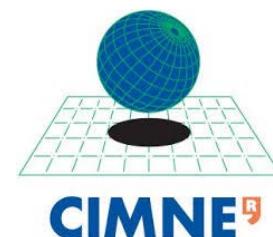
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### **3. BUSINESS SCHOOL ECOSYSTEM**

# Ecosystem



Students benefit from ESADE ECOSYSTEM platform: ESADE International Business School, ESADE Entrepreneurship Institute and ESADECRAPOlis, an open-cross innovation international center. They are thus constantly exposed to market awareness, interact with alternative business models, and have the opportunity to regularly meet companies and entrepreneurs .

The Business School and the innovation Incubator environment works as a real enabler to effective interaction and encounter between students and various players of the "entrepreneurial ecosystem".

According to a new [Financial Times ranking](#), ESADE's MBA is among the **world's top 10 programmes for entrepreneurs**.

Ranked 3rd in Europe, ESADE is the only business school in Spain to make the global top 10, thanks to its world-class dedication to supporting entrepreneurship.

The Financial Times highlighted the ESADE Entrepreneurship Institute's role in "offering students the resources and space they need".

## MBA by numbers: Top programmes for entrepreneurship

Laurent Ortmans

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ESADE's strong showing in the ranking was also made possible by **ESADECREAPOLIS**, an innovation ecosystem for students and companies, and **EGarage**, a space designed for the cultivation of new start-ups. In just a few short years, both of these facilities have attracted countless entrepreneurs focused on bringing their business ideas to life.

# Successful experience



- *From Science to Business* course created in 2008 by ICFO. Five editions have been running with ICFO since then. The 2016 edition is presented for the first 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



# Why ESADE Business School?



## 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 program. 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