



# Innovative practices in industry- education collaboration

**Josep Bordonau, Nancy March 21<sup>st</sup> 2018**



**InnoEnergy**  
Knowledge Innovation Community



# InnoEnergy Master Programmes

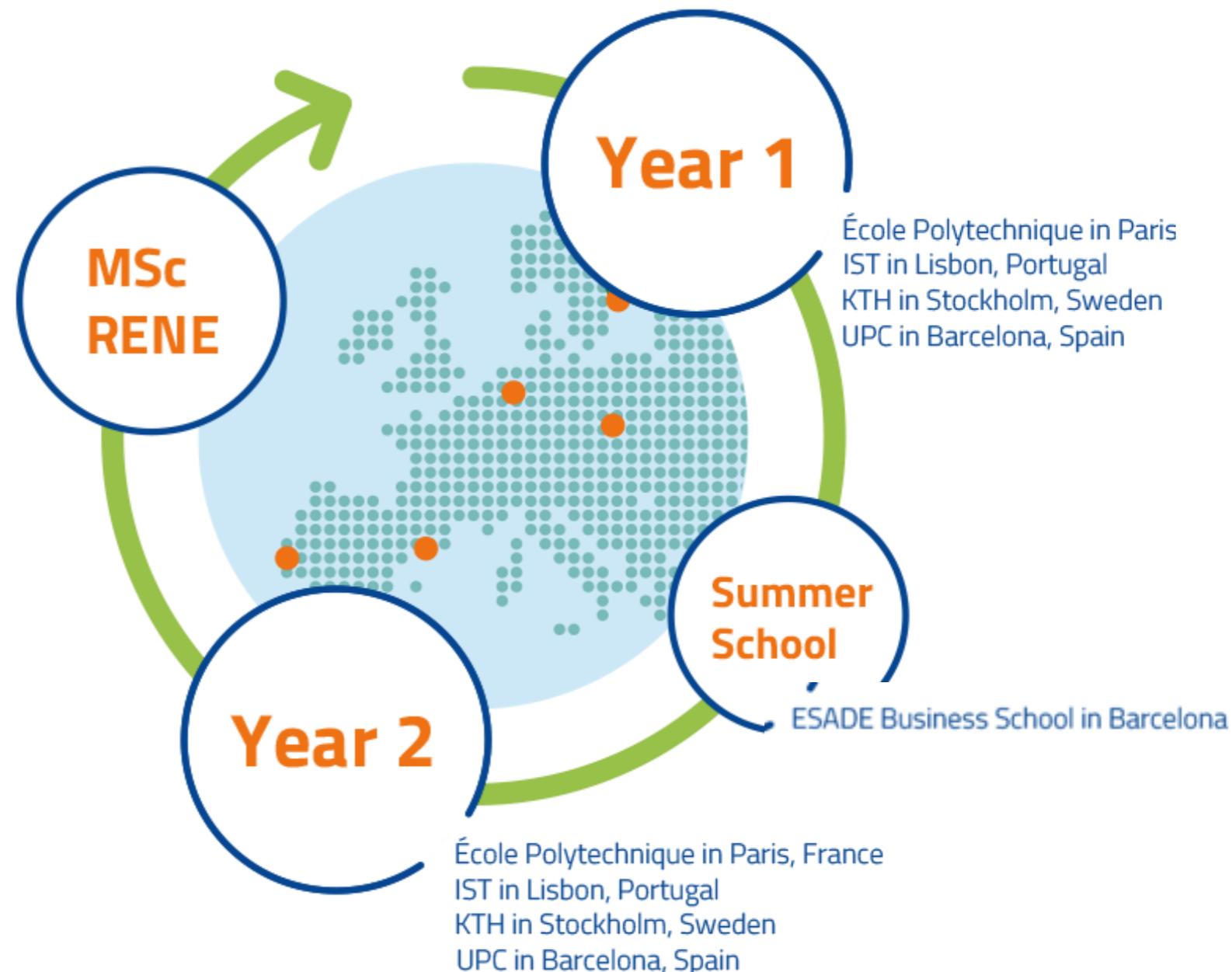


# InnoEnergy Master Programmes

- International **Mobility** Programmes
- Get training in **innovation and entrepreneurship**
- **Internship** in InnoEnergy partners
- Strong **industry participation**
- Access the most **relevant career opportunities in the Energy Sector**

## 7 Master's programmes

- Clean Fossil & Alternative Fuel Energy-CFAFE
- Energy for Smart Cities-EFSC
- Nuclear-EMINE
- Renewable Energy-RENE
- Smart grids-SENSE
- Sustainable Energy-SELECT
- Transversal-ENTECH



**Double degree, one from each university**

- 6 research institutes
- 14 Technical Universities and 3 Business Schools
- 27 Major company shareholders
- 70 participating industry partners
- 1 Knowledge and Innovation Community

## Our Shareholders

- Research Institutes
- Universities
- Industry Partners
- Co-location Centres





# Industry participation in InnoEnergy Master Programmes



# Industry Participation in the Master's School

Marketing and  
Communication  
Plan



Guest lectures and Business  
Cases from industry experts



Study visits



Summer school activities in  
collaboration with Industry



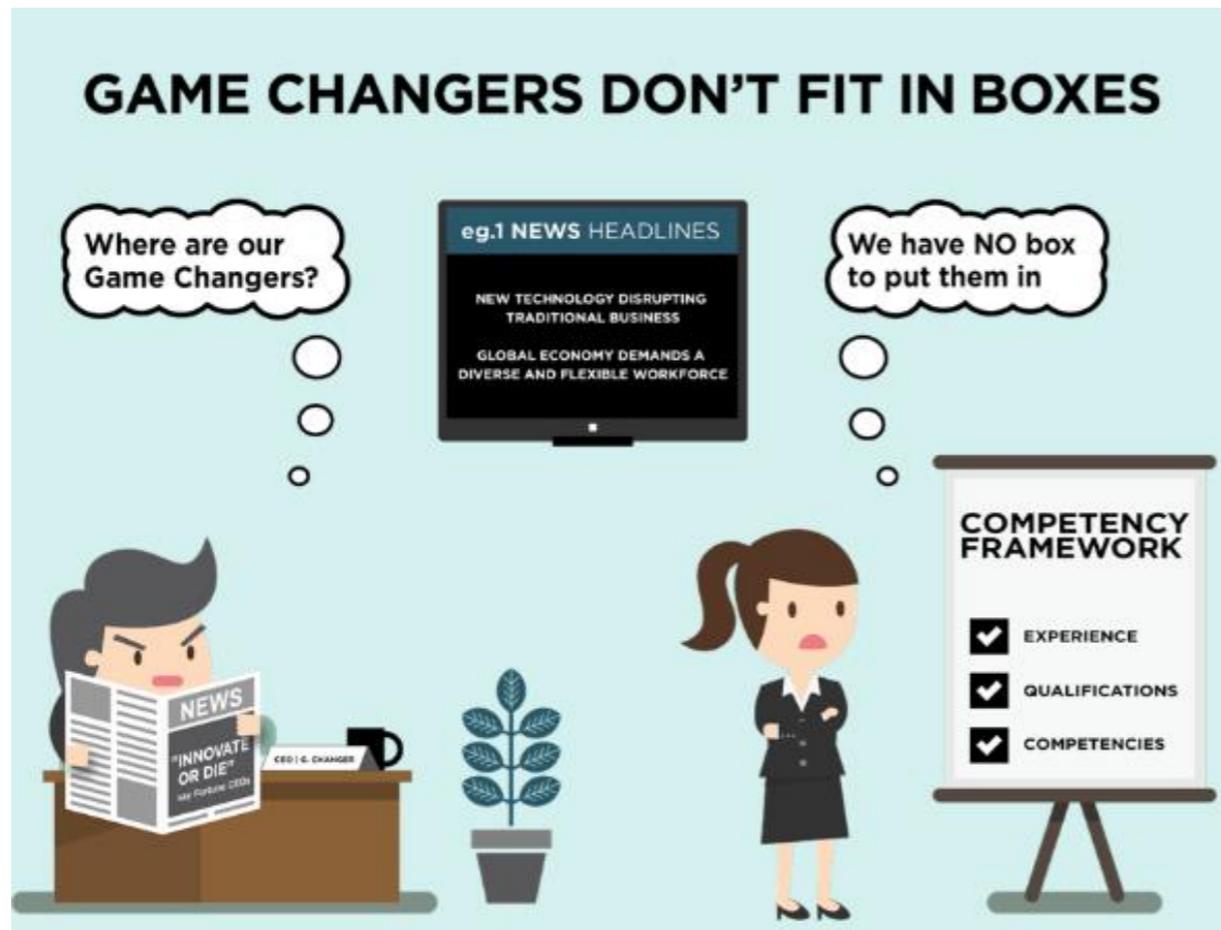
Scholarships  
Talent Partner  
Package

Definition of the  
students profile &  
Curriculum Design

Internships & Job  
Opportunities

**+200 companies have been contacted**  
**31 companies signed an agreement**

# Students' Profile & Curriculum Design



## Students' Profile

- **22 companies** have participated in the definition of student's Profile; **34 profiles were defined**
- The attributes defined as the most important by Industry were **adaptable to different technologies, creative and out of the box!!!**

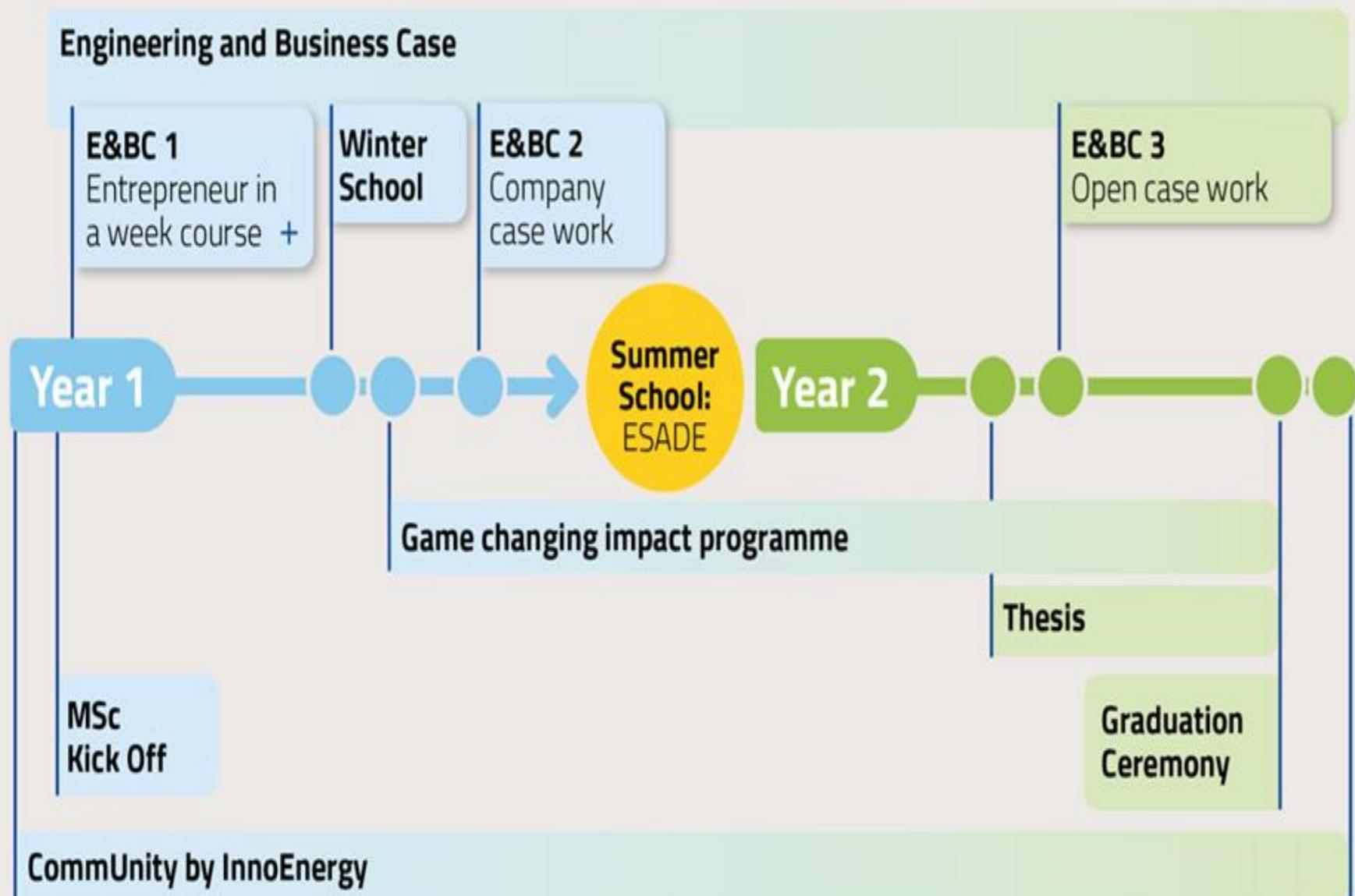


## Curriculum Design

**11 companies** have reviewed the Curriculum Design

- Harvard “invented” legal cases in late XIX century > Business Cases in the 20s of XX century > Medical Cases in the 50s of XX century
- InnoEnergy has invented the Engineering & Business Case® in the XXI century

## MSc RENE. Programme journey



Our concept is inspired in:

- Harvard: Case method
- Aalborg: Project-Based Learning
- MIT, KTH: Challenge-Driven education

Check this video for more details:  
<https://www.youtube.com/watch?v=QMz0ErC8KeQ>

# Business Cases



## Pedagogical Innovation

Students work with industry representatives and start-ups on the development process of Engineering and Business Cases®

*Methodology developed by in collaboration with:*



**HARVARD  
BUSINESS SCHOOL**

*29 Business Cases agreed up to 2017*

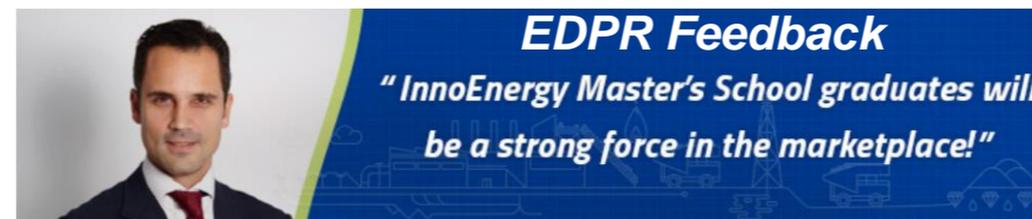
## Some Developed Cases



renováveis



MEYER BURGER



## Partners involved

E&BC®	IST	École Polytechnique	KTH, Aalto, AGH, Polito, TUE	KU Leuven	Poland+	UPC
The Case					X	
The Project	X					X
The Challenge	X	X	X	X		X

# Lecturing, study visits and Master Thesis

**Deloitte.**



*Jean-Michel Gauthier,  
CEO, Energy & Resources*

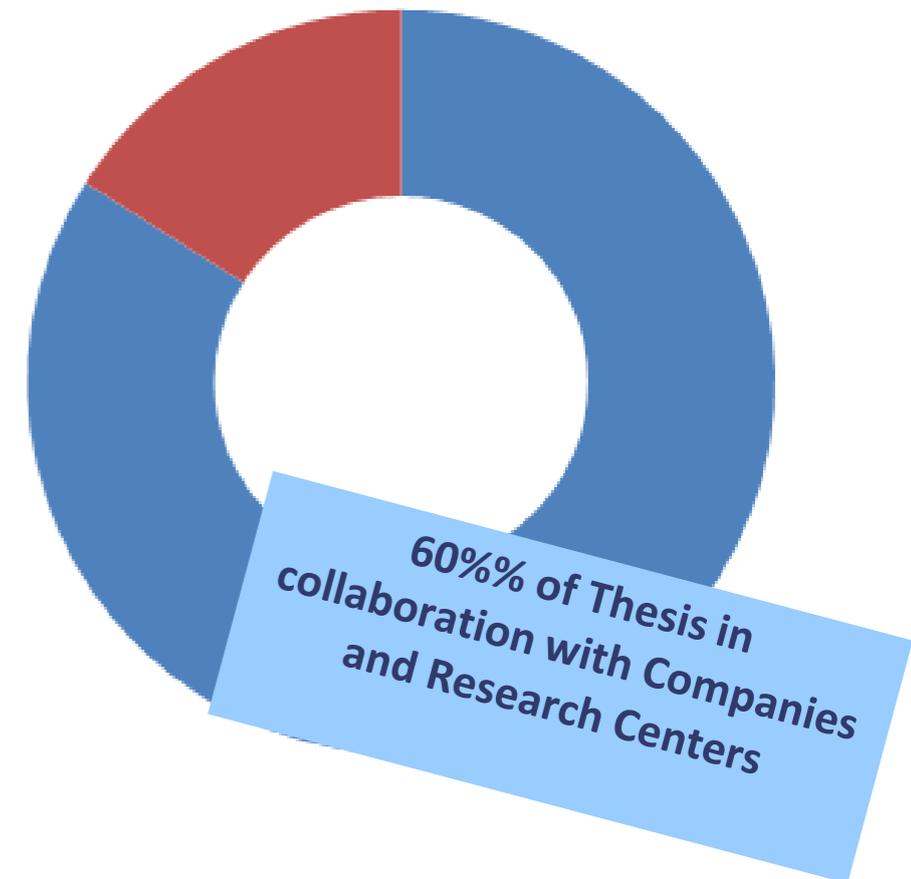
## Lecturing 2017

**29 Industry Experts** are collaborating in Lecturing (minimum 90h)



*Visit to Meyer Burger Headquarters,  
Switzerland*

## Study Visits



## Master Thesis 2017

**More than 100 industry Master Thesis positions** were proposed to the Master students

# Testimonials from Industry

Along with InnoEnergy, Iberdrola launched the **InnoEnergy Challenge Driven Education Activity**. This activity aims to create new answers to address Europe's **energy challenges** with the participation of Iberdrola, which is the number one energy group in Spain and the fourth largest utility company in the world by market cap (top 1 utility in renewables).



**Agustín Delgado,**  
Innovation Director at Iberdrola

"[...] Iberdrola launched the "Iberdrola Energy Challenge", a unique initiative addressed to students of InnoEnergy, based on three main topics related to the energy sector: Global Affordable Energy, New Digital Models in Energy and Social Economy for Affordable Energy.

After reviewing all the proposals from the different participants, we can say that every project fulfilled our expectations according to the Iberdrola strategy to boost innovation [...]."

Digital Summit Event, April 20th, 2016



**Aaron Smith,**  
Strategic Planning Manager at Principle Power

"A very strong group – We interviewed upwards of 15 candidates for the Master Thesis (Internship) and it was very hard to make a decision"



**Oier Bolibar,**  
Sales Director at Meyer Burger

"benefit of a close cooperation between university and industry is mutual. Both need to close the existing gap by collaborating and sharing the experiences and needs in order to make university-industry transition smoother to students. **The InnoEnergy Engineering and Business Case (R) Module** is a real example of how to build new bridges in order to close this gap"



## Branding

- Being present on InnoEnergy Website and Social Media Campaigns
- Acting as guest lecturing on relevant energy subjects
- Posting challenges to be solved by students and graduates

Companies are invited to participate at the following events :

### Master School KIC Off



Welcome to first year master students  
25 companies attended in 2017

### Alumni Unite



Industry meets talent

### Graduation Ceremony



Final ceremony with the graduates

### The Business Booster



# Any questions?



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[www.innoenergy.com](http://www.innoenergy.com)



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