



École des Ponts
ParisTech

Executive Part-Time Master Real Estate, Building & Energy

Mastère spécialisé Immobilier Bâtiment Énergie

Jean Carassus, FRICS, professor & Céline Boua, architect
Director et academic head

2015

Summary



- 1/ Objectives, uniqueness, target
- 2/ Active industry partnerships
- 3/ Ten training objectives
- 4/ A study trip abroad
- 5/ A professional thesis
- 6/ The four first classes

1/ Objectives, uniqueness, target



- Objective: to train management executives and future management executives in sustainable real estate and building
- Uniqueness: to combine real estate skills (finance and law) with those related to building (architecture and engineering) under the aegis of sustainability
- Target: executives in the private and public sectors + open to several trainee executives with high potential (the part-time course enables working people to participate)

1/ Objectives, uniqueness, target



- A degree awarded by the Ecole Nationale des Ponts et Chaussées, established in 1747, founding member of:
 - the Paris Institute of Technology which is made up of 10 engineering and business Grandes Ecoles (Polytechnique, Mines, Telecom, HEC...),
 - the Paris School of Economics,
 - the Paris Est University
- An mastère spécialisé[®] programme accredited by
- Fee: 16 000 €



2/ Active industry partnerships

5 companies, 2 Ministries and one research centre who enrol or finance from 1 to 4 executives per year

- A housing company (subsidiary of AXA)
- A promoter, property, facility and asset manager (subsidiary of Crédit Agricole Bank)
- An energy service company (subsidiary of EDF)



2/ Active industry partnerships

- A global materials manufacturer
- Ministry of Ecology, Sustainable Development and Energy
- Ministry of Housing, Territorial Equality and Rurality
- The Scientific and Technical Centre for Building



3/ 10 training objectives



- Ten training objectives
- 385 hours of teaching
- Eleven weeks spread out over one year
- Including a study trip abroad
- In total 45 ECTS (European Credit Transfer System)

3/ 10 training objectives



- **January (Week 1) Energy transition, third industrial revolution, real estate and building** *Coordinators Jean Carassus FRICS (Ecole des Ponts) Jean-Christophe Visier (CSTB)*
 - Objective: convince a decision-maker to put in place a sustainable real estate and building policy
- **February (Week 2) Sustainable towns and neighbourhoods** *Coordinator Bernard Lensele (Grand Lyon)*
 - Objective: present, for a real estate development (new and renovation), the factors relating to the urban context: neighbourhood and town
- **March (Week 3) User behaviour** *Coordinateur Pascal Plotegher FRICS*
 - Objective: take into account the users in the design, construction and use of a building (new build and refurbishment)

3/ 10 training objectives



- **April (Week 4) Strategy and management of a real estate portfolio** *Coordinators Gilles Chamignon, Frank Hovorka MRICS (Caisse des Dépôts)*
 - Objective: construct, finance and follow an environmental progress plan on the scale of a real estate portfolio
- **June (Week 6*) Financing sustainable real estate and building** *Coordinators Arnaud Berger (Banque Populaire Caisse d'Épargne) Jan Verschueren MRICS (Generali Real Estate)*
 - Objective: understand the needs of a financial decision-maker and give support to a sustainable real estate project

* Week 5 is used for the study trip to another European country

3/ 10 training objectives



- July (Week 7) **Project management and energy Coordinators**
Jérôme Mayet (SETEC) Frédéric Gal (Bouygues Construction)
 - Objective: an initiation of project management (new or refurbishment), from financing to the end user
- September (Week 8) **Brief Coordinator Gérard Lamour (Mission Interministérielle pour la Qualité des Constructions Publiques)**
 - Objective: monitor a sustainable building brief (new and refurbishment)
- October (Week 9) **Architectural, technical and economic design Coordinator Bernard Sésolis (Consulting engineer)**
 - Objective: provide criteria for analysing the coherence and pertinence of a high-performance in terms of energy consumption and environmental quality (new and refurbishment)

3/ 10 training objectives



- **November (Week 10) Technical solutions (new and refurbishment) *Coordinators Charles Pelé et Daniel Quenard (CSTB)***
 - Objective: give an overview of the technical solutions available for high-performance buildings (energy and environmental impact)
- **December (Week 11) Building operation and maintenance *Marc Colombard-Prout, Sébastien Illouz (Caisse des Dépôts)***
 - Objective: be able to explain and appreciate different ways of integrating the energy and environmental performance in the operation and maintenance of one or several buildings

3/ 10 training objectives



- 16 module coordinators:
 - 7 from private sector
 - 9 from public sector
- 100 lecturers (excluding coordinators): 73 from private sector, 27 from public sector, 18 foreign lecturers (Austria, Belgium, Germany, Switzerland, United Kingdom)

4/ A study trip abroad



- In partnership with Geneva University, in 2012, the Swiss “2000 Watt society” concept and the Minergie® label in Geneva and Zurich, in 2013, sustainable city and buildings: comparison Lyon - Geneve
- In partnership with Leeds Beckett University and Salford University, in 2014, 2015, 2016, sustainable city and buildings energy efficiency.

5/ A professional thesis



- Theme chosen by the company or ministry and the Ecole des Ponts ParisTech
- Presentation of the thesis to a panel including a representative of the private company or ministry
- Corresponds to 30 ECTS
- The theses are presented during the following year in a public conference

6/ The four first Classes



- **2015-2016 Class:** 14 participants
- 10 from the different partners, 2 from other companies and 2 between jobs
- Initial education: 9 from technical education (engineers, technical university, architect...), 5 from business and law education

6/ The four first classes



- 10 from private sector, 4 from public sector
- Aged from 24 to 54 (4 under 30, 4 from 30 to 40, 6 above 40)
- 6 women, 8 men
- 3 from real estate companies, 1 from a developer, 1 architect, 1 from an engineering company, 1 from a energy services company, 1 from a research centre, 3 from a manufacturer, 3 from ministries

6/ The four first classes



- **2014-2015 Class:** 18 participants
- 11 from the different partners, 5 from other companies and 2 between jobs
- Initial education: 12 from technical education (engineers, technical university ...), 6 from business, law and communication education

6/ The four first classes



- 12 from private sector, 6 from public sector
- Aged from 23 to 59 (5 under 28, 13 from 28)
- 6 women, 12 men
- 2 from banks, 1 from a developer, 3 from real estate consultancy companies, 1 from a construction company, 1 from a real estate company, 1 from a energy services company, 2 from a research centre, 3 from a manufacturer, 4 from ministries

6/ The four first classes



- **2013-2014 Class:** 18 participants
- 8 from the different partners, 6 from other companies and 4 between jobs
- Initial education: 11 from technical education (engineers, technical university ...), 7 from business, urbanism and hotel education

6/ The four first classes



- 14 from private sector, 4 from public sector
- Aged from 23 to 55 (15 people between 30 and 45)
- 3 women, 15 men
- 4 from a developer, 4 from a real estate company, 2 from engineering companies, 1 from a energy services company, 2 from a research centre, 3 from a manufacturer, 2 from ministries, 1 from a communication company, 1 from a bank

6/ The four first classes



- **2012-2013 Class:** 19 participants
- 9 from the different partners, 7 from other companies and one local authority and 3 between jobs
- Initial education: 10 from technical education (engineers, technical university ...), 7 from business, urbanism and education training

6/ The four first classes



- 16 from private sector, 3 from public sector
- Aged from 24 to 55 (15 people between 30 and 45)
- 3 women, 16 men
- 3 from developers, 1 from a real estate company, 2 from engineering companies, 2 from a energy services company, 2 from a research centre, 4 from a manufacturer, 2 from ministries, 1 from a local authority, 1 from a tourism company, 1 from a car company

Further information



The public website (in French):

www.enpc.fr/node/2200