

## Co-opetition in Higher Education: The French Case

02/22/2011

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### 2011 Conference Project Education

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# Does Co-opetition encourage excellence as a motor for innovation and, more generally, for the future?



### Maxime Legrand

- Economist, Professor of Economics
  - Political advisor and Consultant
- Entrepreneur, CEO and Founder of Project Education, a consulting firm specialized in the field of Higher Education
  - Business activities coupled with Social involvement (Founder of *Parrains d'Avenir*, a non-profit organization dedicated to providing quality information in Education for underprivileged students)



### **Defining Competition**



- Michael E. Porter (Harvard Business School) provides a **« five forces » competition theory model**<sup>1</sup>: the competitive structure of an industry can be analyzed by looking at 5 forces of competition:
  - 1. Threat of New Entrants
  - 2. Bargaining Power of Suppliers
    - 3. Bargaining Power of Buyers
  - 4. Threat of Substitute Products
  - 5. Intensity of Rivalry among Competitors
  - This model allows potential new entrants to measure whether the competitive structure of the industry allows for high profits, and thus is attractive.
- Companies already competing within the industry can use the model to define optimal position



### **Defining Cooperation**



- "The action or process of working together to the same end." Oxford Dictionary
  - Voluntary arrangement in which two or more entities engage in a mutually beneficial exchange instead of competing.
  - "In the last decade, scientists and social thinkers in a range of fields have independently discovered cooperation at the heart of a number of important phenomena. Evolutionary biologists, for example, have revealed how symbiosis plays a key role in everything from cellular evolution to speciation and ecosystem complexity. Mathematicians are revealing basic patterns that underlie synchrony and swarming at all levels of nature, informing our understanding of how cooperative actions and institutions can emerge from distributed actors." Toward a New Literacy of Cooperation in Business, Institute for the Future, 2004

In Business Management too, theories of cooperation as alternatives to competition are becoming more prevalent: inter-company and inter-industry relationships.

# ATEAhe Theory of Co-opetition in 2011 Conference Business Management

- What is Co-opetition? (Competition+Cooperation)
- First used by Brandenburger and Nalebuff (1997)
- Two players in an industry can be complementors instead of competitors
  - Co-opetition exists when the other player's product/service makes your own product/service more desirable: the products are thus complementary in spite of the competition between two players
- Co-opetition is a universal principal that can be applied to all sectors: cars and tires, hot-dogs and mustard; software and hardware are all examples of co-opetition.



## When Competition and Cooperation co-exist

#### The example of CLUSTERS

- "Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. [...] Clusters promote both competition and cooperation. Rivals compete intensely to win and retain customers. Without vigorous competition, a cluster will fail. Yet there is also cooperation, much of it vertical, involving companies in related industries and local institutions." Michael E. Porter, "Clusters and the New Economics of Competition", *Harvard Business Review*, Nov-Dec 1998
- Clusters allow members to benefit from greater productivity, greater scale, without sacrificing flexibility nor independence.



## Co-opetition in Higher Education: The Value Net

CUSTOMERS
Students, Parents,
Government, Donors...

COMPETITORS
Other Colleges, Other
Research Labs, Freelancing
Faculty, Private Enterprise...

THE UNIVERSITY

**COMPLEMENTORS** 

Other Colleges, Other Research Labs, K-12 Education, Computers, Housing, Copy Shops...

SUPPLIERS Faculty, Staff, Administrations, Publishers

Source: Co-opetition: A Revolution Mindset that Combines Competition and Cooperation, Barry J. Nalebuff; Adam N. Brandenburger, 1997, pg 16



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## The Stakes at Play in the Field of Education

- Schooling and Higher Education are essential contributors to the production of human and educational capital.
  - Education and Economic Growth: Gary S. Becker's theory of Human Capital:
- o "The human capital approach considers how the productivity of people in market and non-market situations is changed by investments in education, skills, and knowledge. [...] Human capital analysis starts with the assumption that individuals decide on their education, training, medical care, and other additions to knowledge and health by weighing the benefits and costs. Benefits include cultural and other non-monetary gains along with improvement in earnings and occupations, while costs usually depend mainly on the foregone value of the time spent on these investments."
  - Investments in Human Capital are major contributors to Economic Growth

    Schooling and Education lead to economic benefits





## The Stakes at Play in the Field of Education

- The Stakes at play when questioning the theories of competition / cooperation / co-opetition in the field of Higher Education are those relative to the success and overall efficiency of the Higher Education System.
- Competition: The Market sometimes shows its limits
- o **Cooperation:** Can lead to examples of free-rider behavior
- Co-opetition: An efficient and constructive mix. Co-opetition in Higher Education leads to grouping and resource sharing.



# Competition AND Cooperation in Higher Education on an INTERNATIONAL SCALE

#### INTERNATIONAL COMPETITION

- International universities compete with each other for students and staff
  - Countries are competing with each other for faculty
- International ranking systems developed over the last 30 years contribute greatly to worldwide competition in Higher Education (Shanghai rankings, Times Higher Education, Financial Times, US News...)
- o The race for internationally recongnized accreditations (EQUIS, AACSB...)
  - Opening foreign-based campuses: NYU, Chicago Booth, and INSEAD's off-shore campuses in Singapore, Harvard Medical School's campus in Dubai, etc.
    - The race for patenting in research



# Competition AND Cooperation in Higher Education on an INTERNATIONAL SCALE

### INTERNATIONAL COOPERATION

- Structures in place allowing for international ventures in the field of Higher Education : UNESCO, UNICEF...
  - Conferences such as this week's AIEA Conference in San Francisco allow for international discussion and debate regarding examples of success in cooperation in Higher Education
- The OECD, Organization for Economic <u>Cooperation</u> and Development, and the exchanges and partnerships it allows



## Competition AND Cooperation in Higher Education on a EUROPEAN SCALE

- In the field of Higher Education, a zone of competitivity created in Europe: European Higher Education Area (EHEA)
  - BUT National policies in Higher Education base themselves on cooperation and exchange between universities (ERASMUS, collaborative research projects such as TEMPUS...)
  - The Subsidiarity principle is applicable to Higher Education in Europe + the European Union's weak budget in the field = Europe encourages Member States to take national initiatives in Higher Education



## Competition AND Cooperation within Higher Education Institutions

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  - In spite of the pluridisciplinary nature of most Universities, the different departments and schools are **competing amongst themselves to attract students**, and thus increased budget and faculty opportunities.
  - Higher Education Institutions ask students to complete group work assignments, and yet final examination and assessment is always individual.



- Project Education
  - Two main parallel systems can be distinguished:
    - ✓ The university system, open to all Baccalauréat holders (public institutions) : non-selective / competitive admission
    - ✓ The "Grandes Ecoles" system, a specialized system with a limited number of places (public and private institutions) : selective / competitive admission
  - This dual system weakens the international impact of French Higher Education



- Strong competition between the Universities; Some Universities fragmented into multiple Universities (ex. Sorbonne) = A very large number of Higher Education Institutions in France, relative to other comparable countries
  - 4 343 higher education institutions are officially recognised by the State, of which 83 publicly funded universities

(Source: European Commission, Focus on Higher Education in 2010)



- A system that selects (competition) more than it truly trains and prepares students for the realities of their professional future:
  - No use of Business Case work.
    - Very little group work.
  - Schools that are used to prepare for other schools (CPGE).
- The University system characterized by a high drop-out rate (average of 40%; 70% in some Universities after 1<sup>st</sup> year).



- A system that entirely ignores the notion of cooperation:
  - Students aren't encouraged to cooperate
- Very little cooperation between Universities,
   Research, and the Corporate world
- Very few start-up opportunities for University students: France has been waiting for the past 20 years for its own Google adventure...

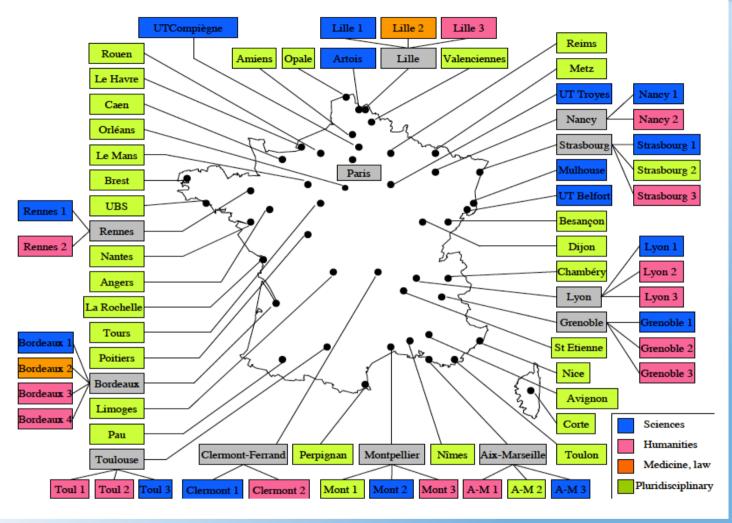


### A France/UK Comparison



	France	United Kingdom
Number of students	2 260 000	2 340 000
Number of Higher Education Institutions	4305	169
University Admissions Procedure	Universal access with selection via exam results during the degree	Universal access with selective entrance.
Criteria for measuring	The higher the rate of failure	The higher the successful
Institution's success /	at entrance or at graduation,	degree graduation rate, the
reputation	the better the Institution's	better the Institution's
	reputation.	reputation.
Duration of First Degree	3 years. Only 35% of students obtain their degree in 3 years.	3 to 4 years, depending on degree type. 90% of students obtain their degree in 3 years.
Study / Assessment culture	Individual study is favored. Students don't have access to tutors and mentors.	Group work methods are favored. Individual and group tutoring.



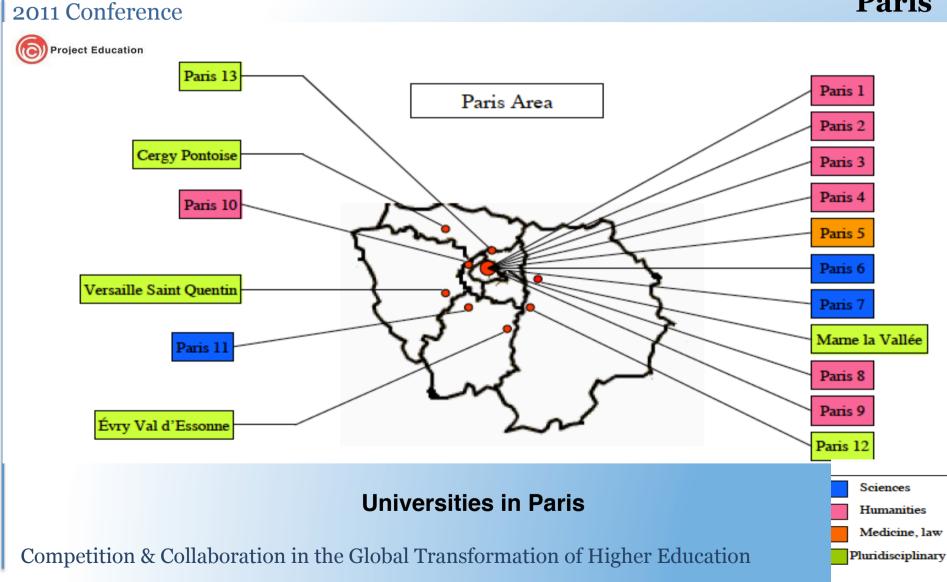


#### **Universities in France (45% of total universities are pluridisciplinary)**

Number of students enrolled at the smallest university = 3276 students at Université
 Nîmes



### No less than 17 competitive Universities in Paris





### Weaknesses in the French Higher Education System

- An excessively fragmented Higher Education landscape: universities, schools (private and public), research centers and labs...
- A lack of coherence and a tendency to LAYER the different institutions
- Inexperience in the field of Fundraising and Self-Governance
  - Very few ties with the business / professional world
    - Very little international competitiveness



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### Recent political Framework for Reform in Europe and France

- Bologna / Lisbon Processes: Europe is to become the international hub for research, and the world's strongest knowledge-based Economy by 2010 (now 2020...)
- The 2007 *LRU* law (*Law relating to the Roles and Responsibilities of Universities*) in France: autonomy and human resource management for universities; greater responsibility, excellence and efficiency...
- There has been a real awakening to the need for change in Higher Education, on a European scale as well as more specifically in France.



## The Bologna Process' main objectives

- Making academic degrees comparable and promoting mobility
- Developing the **European dimension in education**, particularly through the teaching and dissemination of the languages of Member States;
  - Promoting cooperation between educational establishments;
- Exchanges of information and experience on issues common to the education systems of Member States.
- Implementing **references and guidelines to guarantee quality**, as proposed in the ENQA report (European Association for Quality Assurance in Higher Education);
  - Awarding and recognizing joint degrees, including at doctorate level;
  - Creating opportunities for flexible pathways for training in higher education, including the existence of provisions for the validation of experience.



INCREASED COOPERATION IS THE KEY...



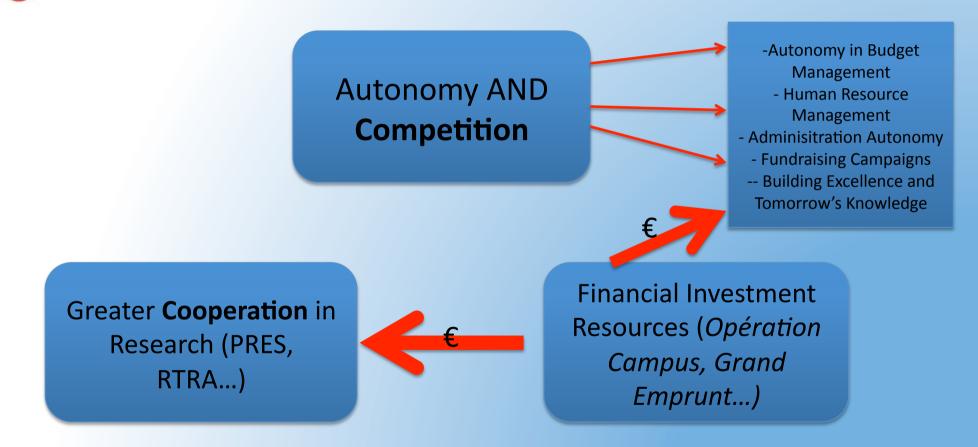
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## The Goals of Reform in France and Europe

- Autonomy and independence (a new concept for French universities)
- The creation of new structures for cooperation
  - Increased International Competitivity
    - Greater International Mobility
      - Increased Efficiency
      - Academic Excellence...

## ATREMeans for University Reform 2011 Conference in France







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### The Introduction of the *PRES*



- Poles de recherche et d'enseignement supérieur (PRES) / Research and Higher Education Clusters
  - o 21 PRES have been created since 2006
  - These "Research and Higher Education Clusters" aim to associate and combine the academic resources concentrated in a specific geographic area, in terms of research, teaching staff, students and material resources
  - o The key idea is that these PRES allow **different individual institutions to associate their resources**, and thus to create a thriving and diverse environment for research and education.
  - Another important goal of the PRES is to attract researchers, professors and students from abroad and thus **broaden France's international scientific and academic profile**.





#### Pôles de recherche et d'enseignement supérieur



EPCS (établissement public de coopération scientifique)



FCS (fondation de coopération scientifique)

#### Établissements d'enseignement supérieur

Universités



Universités autonomes



Universités de technologie autonomes



Instituts nationaux polytechniques autonomes



Grands établissements



Écoles normales supérieures - ENS



Écoles normales supérieures autonomes



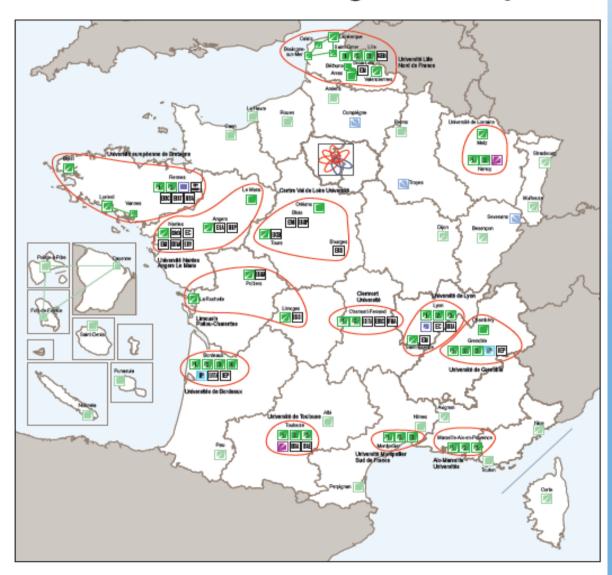
Autres établissements d'enseignement supérieur

#### Organismes de recherche

XXX

Organismes de recherche

### Les pôles de recherche et d'enseignement supérieur









#### Pôles de recherche et d'enseignement supérieur



EPCS (établissement public de coopération scientifique)



FCS (fondation de coopération scientifique)

#### Établissements d'enseignement supérieur

Universités

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Universités autonomes

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Universités de technologie autonomes

Instituts nationaux polytechniques autonomes

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Écoles normales supérieures - ENS

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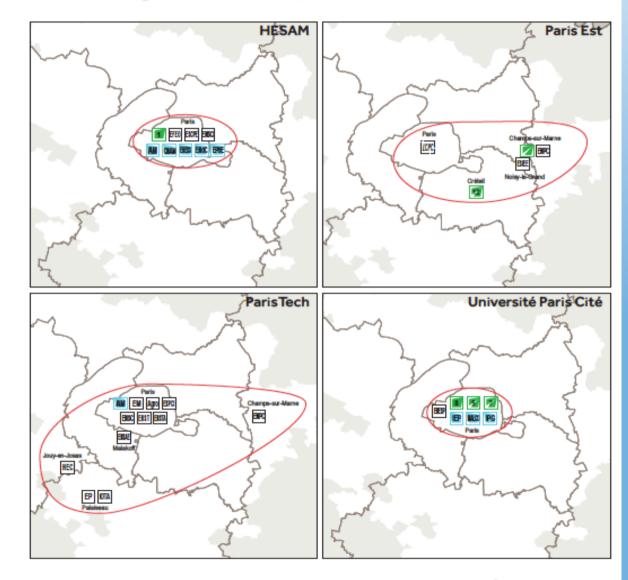
Autres établissements d'enseignement supérieur

#### Organismes de recherche

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Organismes de recherche

### Les pôles de recherche et d'enseignement supérieur en lle-de-France





Source: MESR - DGESIP / DGRI - CST Réalisation: MESR - DGESIP / DGRI - SIES

décembre 2010



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Pôles de recherche et d'enseignement supérieur

EPCS (établissement public de coopération scientifique)



FCS (fondation de coopération scientifique)

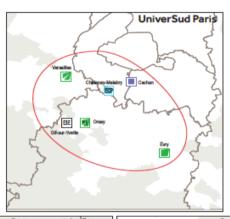
Établissements d'enseignement supérieur

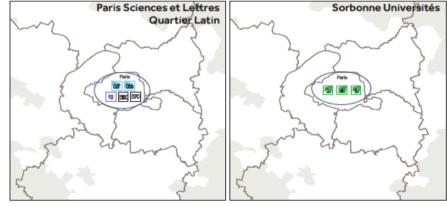
- Universités autonomes
- Universités de technologie autonomes
- Instituts nationaux polytechniques autonomes
- Grands établissements
- Écoles normales supérieures ENS
- $\overline{\nu}$ Écoles normales supérieures autonomes
- XXX Autres établissements d'enseignement supérieur

Organismes de recherche

XXX Organismes de recherche

#### Les pôles de recherche et d'enseignement supérieur en lle-de-France







décembre 2010



### Other Structures for Cooperation in the French Higher Education System

- Réseaux Thématiques de Recherche Avancée (RTRA)
  - Scientific research clusters dedicated to a specific project in a specific domain of study

- Centres thématiques de recherche et de soin (CTRS)
  - Scientific research clusters dedicated to medical study and research



### **Opération Campus**



- "Opération Campus" was launched in 2008
- Encourages universities and schools to group together in order to apply for funding aimed at renovating old buildings and expanding campus space
- The goal is also to create high-tech hubs with visibility on an international scale
  - 5 Billion € Budget
  - 9 of the 12 successful candidates for Funding based themselves on *PRES* structures

# Threstissements d'Avenir" Funding 2011 Conference Project Education Project Education

 Investissements d'Avenir (Future Funding) is a large State funding program dedicated to improving the French Higher Education system

• 21,9 Billion € Budget



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 The projects and ambitions for greater cooperation in French Higher Education are positive, yet there are obstacles and weaknesses in their application...



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# The Competition / Cooperation dilemma in French Higher Education

- The Autonomy law increases competition between actors, and at the same time projects such as the PRES, pôles de competitivité, RTA, Grand Emprunt also encourage cooperation: this is a source of conflict.
  - The LRU Autonomy project forced universities to concentrate on autonomy and greater individual responsability, and thus moved cooperation projects and plans to the back-burner.
- The LRU thus slows down cooperation efforts such as the PRES...causing some of these projects to struggle.



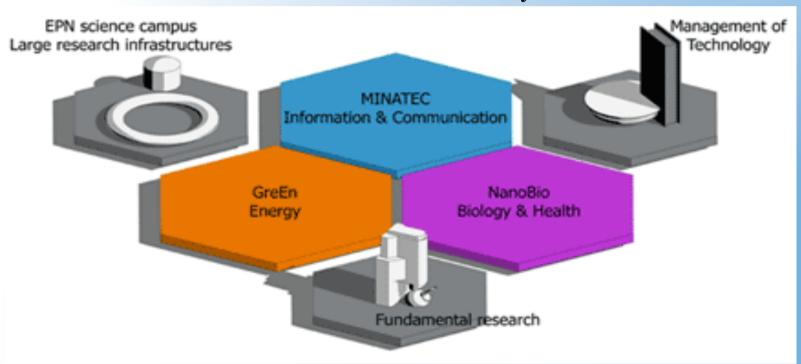
## Examples of Success – Overcoming the Competition + Cooperation dilemma

- **Grenoble Cluster**: 19 000 researchers; 200 laboratories; 60 000 students; 10 Engineering schools; 1 Business School; A strong corporate network.
- The GIANT innovation cluster in Grenoble aims to create a French equivalent to MIT
  - The goal is to group on the same site large research hubs,
     Engineering schools, Business Schools and the MINATEC Cluster (Europe's first research center for nanotechnologies)
- O GIANT aims to benefit from university / corporate world proximity and cooperation, and to further encourage start-ups and business angel ventures
- o Grenoble was named "**Secret Capital of Nanotechnology**" by Time Magazine Europe in 2004



## Examples of Success – Overcoming the Competition + Cooperation dilemma

The GIANT Project's aim is to create 6 centers of excellence to increase worldwide visibility:



Source: Giant Grenoble Project website - http://www.giant-grenoble.org/



## Examples of Success – Overcoming the Competition + Cooperation dilemma

- Merger of Strasbourg's 3 main universities: With the move to autonomy in 2009, the 3 polyvalent universities in Strasbourg were merged, thus proving that projects of competition (autonomy) and cooperation (merger) can be undertaken concurrently.
  - In this case co-opetition is surpassed and total fusion has been attained.



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The Project is closely followed and encouraged by the French Presidency



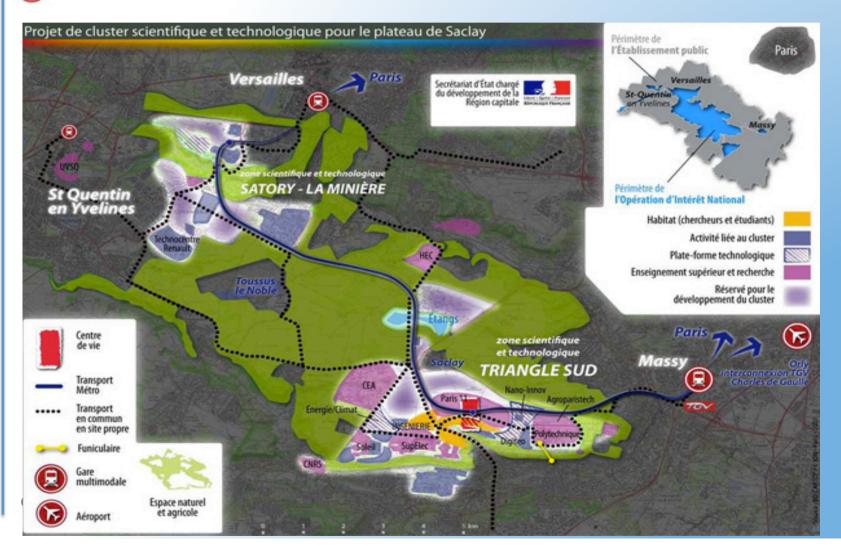


- The Paris-Saclay Campus project associates nineteen institutions (universities, schools and research labs) in the South West of Paris, with the ambition of transforming the university environment and facilities, and creating a world class multidisciplinary cluster of excellence in science and technology.
- The ambition is to capitalize on the potential of different members and raise Saclay to the level of leading European campuses and to position it **among** the first ten in the world.



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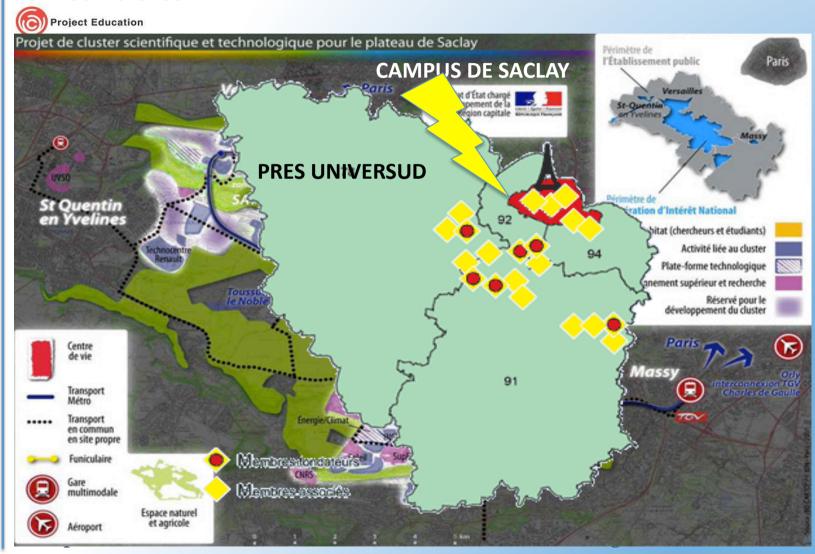




- This project has created competition between the different institutions participating, which are the best institutions and educational groups in France in their disciplines: Polytechnique, Ecole des Mines, ENPC, Ecole Centrale (Engineering); INRA, AgroParisTech (Agricultural Research and Engineering); HEC, ENSAE (Finance and Management)
- One of the 19 members of the Saclay Campus Project is the PRES UniverSud: an attempt at cooperation has been made...
- ... But both these actors have common interests, namely in terms of fundraising goals and international recognition, and competition has arisen.



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## Campus de Saclay: An example of competition hindering cooperation

Public policy, and more specifically public funding is largely focused on the Saclay Campus Project, and not on the PRES UniverSud



The PRES UniverSud is thus marginalised, leading to tensions and to a negative layering effect in Higher Education in the South of Paris = INEFFICIENCY!

## A Where to now? Next steps in reform for Success



- Results of cooperation and co-opetition in Higher Education in France are for the moment modest: greater efficiency has not yet been shown, and obstacles have been encountered
- Compromise is still too prevalent: power-play makes clear governance and widespread excellence difficult to implement
  - Quality in cooperation, rather than quantity
- The excessive layering of different cooperative projects and ambitions is to be avoided : coherency is the key!
- The State / Ministry needs to better overview, outline and supervize the PRES



## **Questions & Comments?**



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