# How assessments and rankings Impact Higher Education and Research Institutions actual performances:
Case study with CentraleSupélec

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September 2016

CentraleSupélec

- **World population will rise from 7MM to 11MM (esp. Africa)**

- **Unpreceeding challenges for Energy, Climate, Ressources (Water and Air) & Urbanisation**

- **Challenges for Peace & Security**
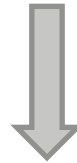
HE is considered as a key answer

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HIGHER EDUCATION REVOLUTION

- **Globalisation**
  - More than 40000 inter-connected Higher Education Institutions in the world
  - A Worldwide offer

- **Massification**
  - 100M students in 2000, 200M in 2015, 265M in 2025
  - 4.1M students abroad in 2015, maybe 7M in 2020

- **Digitalisation**
  - Massive instantaneous information
  - Instantaneous comparison and competition
  - New way of teaching/learning

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ABONDANT AND PUZZLING OFFER

- **Competition for students**
  - « BtoC », Exchange, joint/Dual/Double Degrees
  - Research, Companies
  - US, UK, Europe, Asia…

- **Competition for faculties**
  - International career
  - Research collaborations
  - Work conditions & Salaries

- **Competition for partner HEI and companies**
  - Best partnerships
  - Best collaborations

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- **INTERNATIONALIZATION STRATEGIES**

- **RE-ORGANISATION & CLUSTERIZATION**

- **ASSESSMENTS & RANKINGS**

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A STUDY CASE

CENTRALESUPELEC

(IN SHORT)

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- **PIONNEERING (1980-2003)**

  - Double Degree Concept and T.I.M.E. Network

  - Group of Ecoles Centrales

- **INTERNATIONALIZING (2003-2013)**

  - Co-operated International Campuses (China, India, Morocco)

  - International Research Units

  - European Programs

- **GLOBALIZING (2013- …)**

  - CentraleSupélec & New Curriculum

  - Université Paris-Saclay

  - Worldwide Global Campus approach

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- **Ecole Centrale Pékin (2005)**

120 Students/Year x 6 Year program

- **Mahindra Ecole Centrale (2014)**

240 Students/Year x 5 year program

- **Ecole Centrale Casablanca (2015)**

100 Students/Year x 3 Year program

- **Project of Ecole Centrale in Brazil…**

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- Born officially on **December 30, 2014** by a French government decree as the merge of formerly existing **Ecole Centrale Paris (1829)** and **Supélec (1893).**

- Incarnates of the tradition of the **Excellence of the *«French Engineer»***, with a **highly selective and competitive** entrance exam.

- Educates **high-level engineers-managers** with strong sciences base and multidisciplinary approach into **top managers, company founders and experts** for France, Europe and beyond

Top first in France with Polytechnique

164 in the top200 WW
•4th French
•7 for Employer reputation

1st in France by Subject: Electrical & Electronic Engineering

2nd in France by Subject: Mechanical, Aeronautical & Manufacturing

2nd in France by Faculty: Engineering and Technology

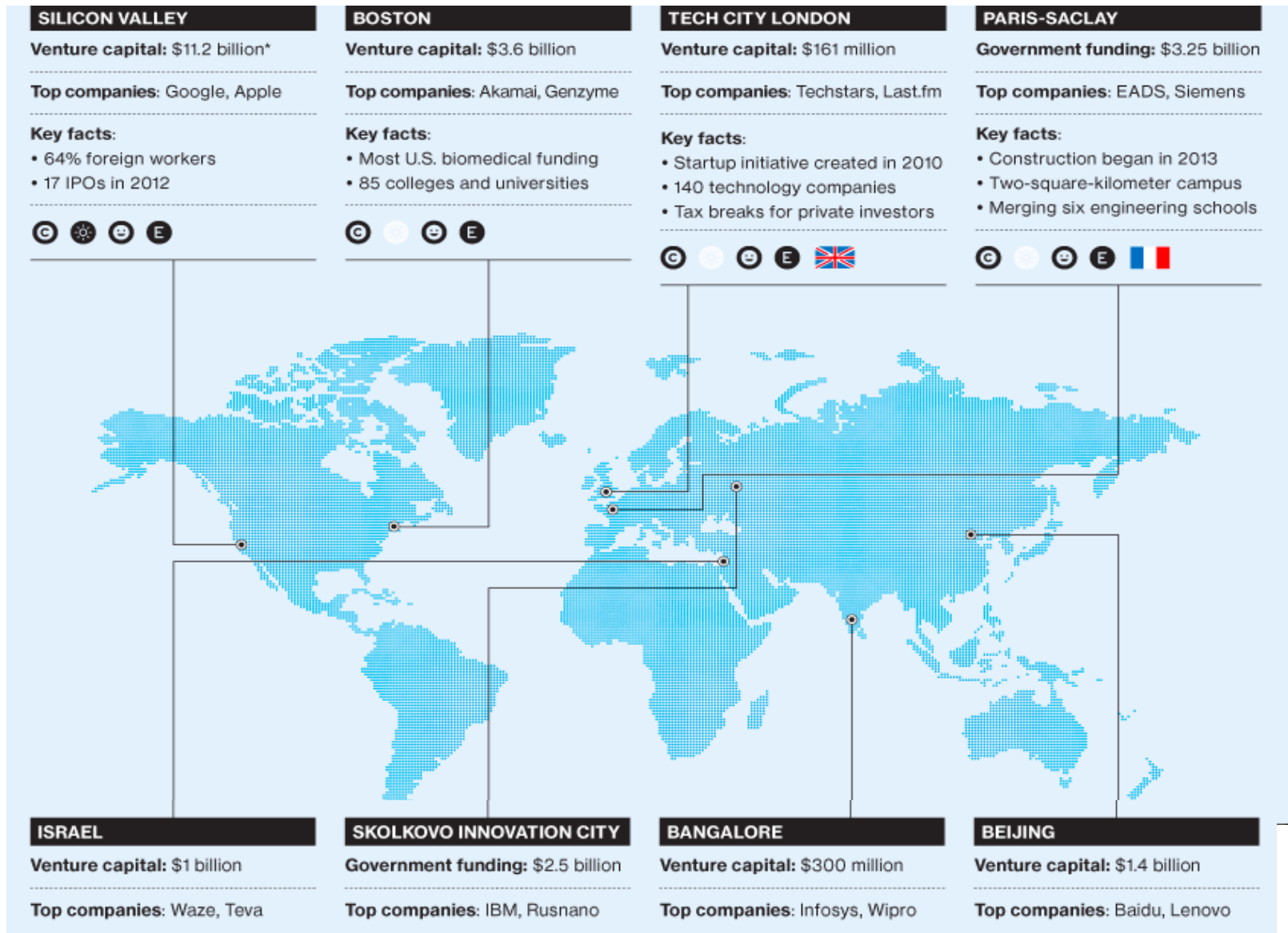Hervé Biausser - September 2016

- 18 institutions
- 65 000 students
- 10 000 Masters and 5700 PhD (40% international)
- 10 500 researchers
- 120 ERC grants, 6 Fields medals and 2 Nobel prizes
- 8 000 publications per year
- **Represents 15 % of the French public research**
- 20 Doctoral Schools
- Innovation & Entreprenarial Hub

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SILICON VALLEY

Venture capital: $11.2 billion*

Top companies: Google, Apple

Key facts:
- 64% foreign workers
- 17 IPOs in 2012

BOSTON

Venture capital: $3.6 billion

Top companies: Akamai, Genzyme

Key facts:
- Most U.S. biomedical funding
- 85 colleges and universities

TECH CITY LONDON

Venture capital: $161 million

Top companies: Techstars, Last.fm

Key facts:
- Startup initiative created in 2010
- 140 technology companies
- Tax breaks for private investors

PARIS-SACLAY

Government funding: $3.25 billion

Top companies: EADS, Siemens

Key facts:
- Construction began in 2013
- Two-square-kilometer campus
- Merging six engineering schools

ISRAEL

Venture capital: $1 billion

Top companies: Waze, Teva

SKOLKOVO INNOVATION CITY

Government funding: $2.5 billion

Top companies: IBM, Rusnano

BANGALORE

Venture capital: $300 million

Top companies: Infosys, Wipro

BEIJING

Venture capital: $1.4 billion

Top companies: Baidu, Lenovo

ASSESSMENTS & RANKINGS

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- a Quality Assurance and a Continous Improvment Commitment
- a Tool for Self-Development (Right Questions, Right Strategy, Right Resources)
- a Must-have for Students & Faculty Recruitment
- a Must-have for Resources and Fundings
- a Peer Review/Acknowledgment
- a Key for Legitimacy and Assertivity

Structural Bodies

- **HCERES** (High council for R and HE Assessment)
- **CTI** (Engineer Title Committee)
- **ENQA** (European Association for QA in HE)
- International mutual-recognition Agreements

BUT…

- Could be too bureaucratic

- Sometimes too heavy processes

- Needs resources to manage properly

- Could be deconnected from the Students/Faculties actual needs and from IT revolution

- Could limit Innovation, Creativity & Experimentation

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- A Scale for Global Comparison & Competition
- An Orientation Tool for Students/Faculties/Institutions
- A Tool for Engaging Public Bodies in Modernization & Internationalization of HE
- A tool for non-expert
- More and more a Must-be-In for Resources and Fundings

But:

- KPI not always pertinent & sometimes defined « ad-hoc »
- Rankings = too simplified view of a very complex panorama
- Favorize big US/UK Research Oriented Universities
- Favorize individualism and a « star-system »
- Disadvantage small and specialized HEI
- Tend to standardize HE globally

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Very criticized/criticable but still better to be IN than OUT

Then be careful:

- Not to put Rankings at the top of Strategy
- Not to use Rankings as a main decisionary/driving force
- Not to think that Rankings are a scale of Excellence
- Not to give more meanings to Rankings that they really have
- To cross-check International & National Rankings (more meaning full)
- To remember that Collective and Team Work is not favorized in Rankings

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Is it really a scaling map of Excellence in the World ?
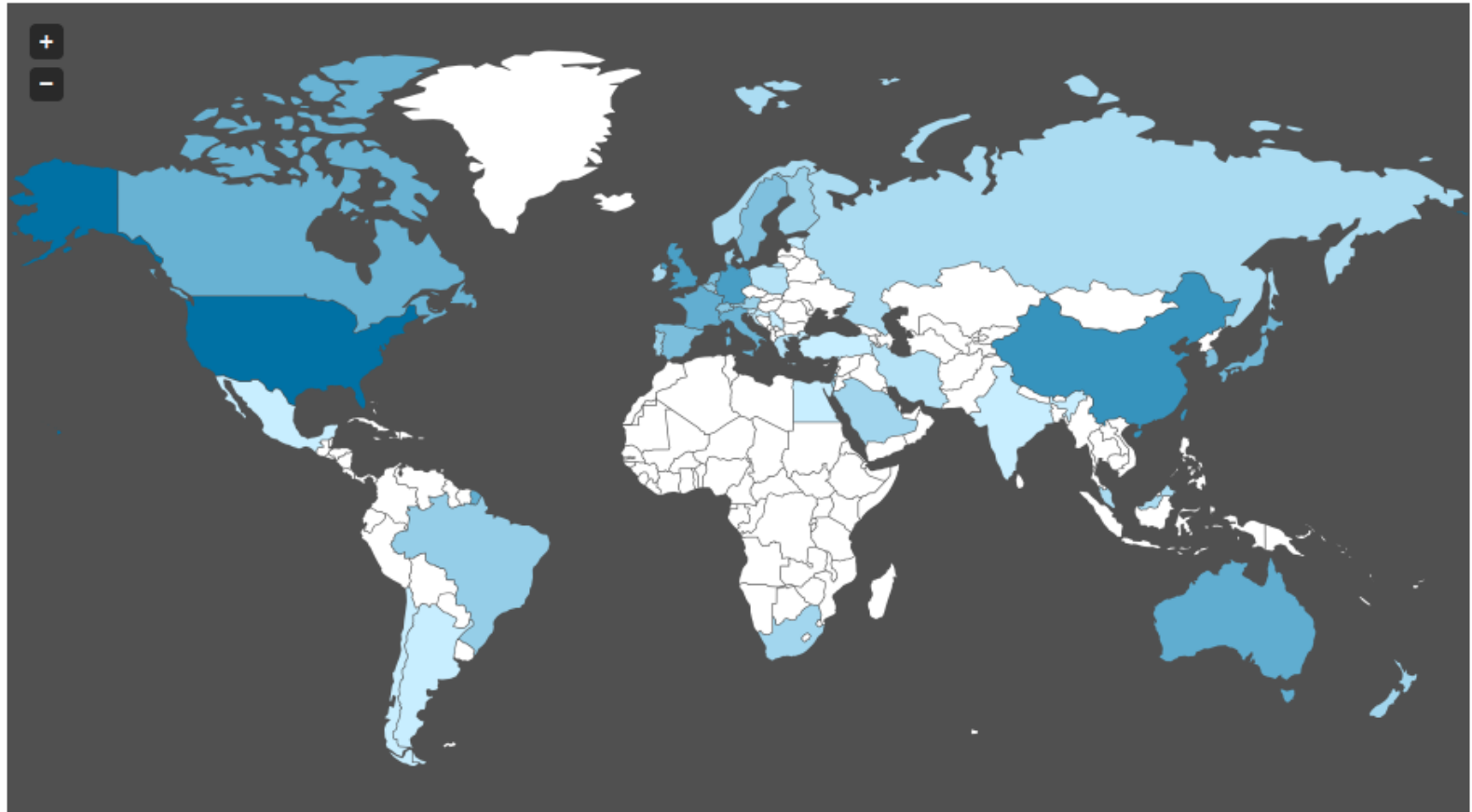
ARWU map of HEI in the TOP500 (by number per country)

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THANK YOU FOR ATTENTION