



Pierre & Marie Curie University

**Measuring performance
and enhancing the impact
on the knowledge triangle**

Laurent Buisson
Vice President Development & Corporate Partnerships

SORBONNE
UNIVERSITÉS

The OECD High Level Event on the Knowledge Triangle
16 September 2016

UPMC
SORBONNE UNIVERSITÉS

Measuring Global Impact

An independent measurement by BiGGAR

- Scottish consulting company to measure the global impact on the economy
- The 21 Members of the League of European Research Universities (LERU)

Results: 71 billion euros generated in Gross Value Added and 900,000 jobs across Europe

- Global impact: expenditures of the university, employees and students, contribution to the local workforce, volunteering, innovation, tech transfer...
- For each euro spent by LERU universities there are almost 6 euros of expenditures in the whole European economy; the same for jobs.
- But the expenditures generated or the jobs created are not the only way to assess our impact

Looking for Consensus: Criteria

- **Established Criteria**
for scientific and medical research
 - Global activities for centuries
 - International publications & awards
 - General consensus on indicators
- **Uncertain Criteria**
for education and innovation
 - Closely connected to stakeholders' agenda
 - More or less relevant according to the context
 - May change depending on tools of assessment



Education

Our primary mission, our highest impact

BIGGAR results:

- 47 billion euros: the economic contribution of LERU's universities—outside their direct expenditures and those of their employees.
- Of which 25 billion euros: in students expenditures, students contribution to the local work force and the alumni graduate premium.



Education criteria and indicators

Closely connected to stakeholders' points of view

- **Stakeholders**
 - Teaching many to increase overall skill of the workforce or training only elites?
 - Local government has a geographical focus
- **Criteria subject to Policies and Context**
 - Comparing apples and oranges: students *selected by* or *assigned to* a university?
 - Graduate premium impact tied to the specific job market
 - wages are on a broad spectrum = high graduate premium
 - wages are contained in a narrow band = lower graduate premium

Impact & Added Value of Research Results on Society

BIGGAR: support from the LERU Universities can be quantified

Almost 22 billion euros in GVA 298,489 jobs across Europe

- **University/Industry Partnerships**
 - **Perceived performance and visibility** often depends on press coverage and partnering with high-profile companies
 - Choose industry partners based **on real university missions not indicators**

Impact & Added Value of Research Results on Society

- **Intellectual Property & Technology Transfer**
 - **Visibility through blockbusters**, so not a true reflection of performance
 - Performance measured best through **complete assessment of activity (ex. AUTM survey)**
- **Creating New, Innovative Companies**
 - Considered a **prime mission** of dissemination of research results
 - Performance measured by **different stakeholder criteria**

A Case in Point: UPMC



A Case in Point: UPMC

Pierre & Marie Curie University:

- **The top French university, 7th in Europe, and 5th in Math worldwide**
- **Located in the heart of Paris, plus three marine stations** on the French coasts
- **35,000** students of which 20% are international; **3,300** doctoral candidates; and **2,500** professor-researchers on staff, **5,200** researchers total (including our partners) in **100 laboratories**
- **Nobel prize for physics in 1997 and 2012**
- **Fields Medal in 1982, 2010 and 2014**
- **Part of the Sorbonne University group**, offering comprehensive education and research

A Case in Point: UPMC

Industry Partnerships and Technology Transfer

- **100 industry partnership agreements signed every year**
 - 20% of research revenues
- **End-to-end technology transfer capabilities**
 - Lutech to **file patents** and **mature technology**
 - Agoranov to **incubate startups**
 - Quadrivium for **seed capital**
- **Solid results (2015)**
 - **178** invention declarations and **95** patent applications
 - **514** patent families and **50** software applications
 - **95** active licenses; **21** generating revenues
 - **1,5** million euros in licensing revenues
 - **5** new tech transfer companies + new tech companies created by new alumni

A Case in Point: UPMC

Contrasts in the Point of View

- **Criteria for Government**
 - National & local government have a geographical focus as their main criteria
 - Favor partnerships with small business
 - Local government prefers licensing to start-ups
- **Not Criteria but Missions for UPMC**
 - Research and its results are globally based
 - Work in a broad range of sectors & a range from small to large companies
 - Choice of license or startup based on best method of exploitation, not on location

A Case in Point: UPMC

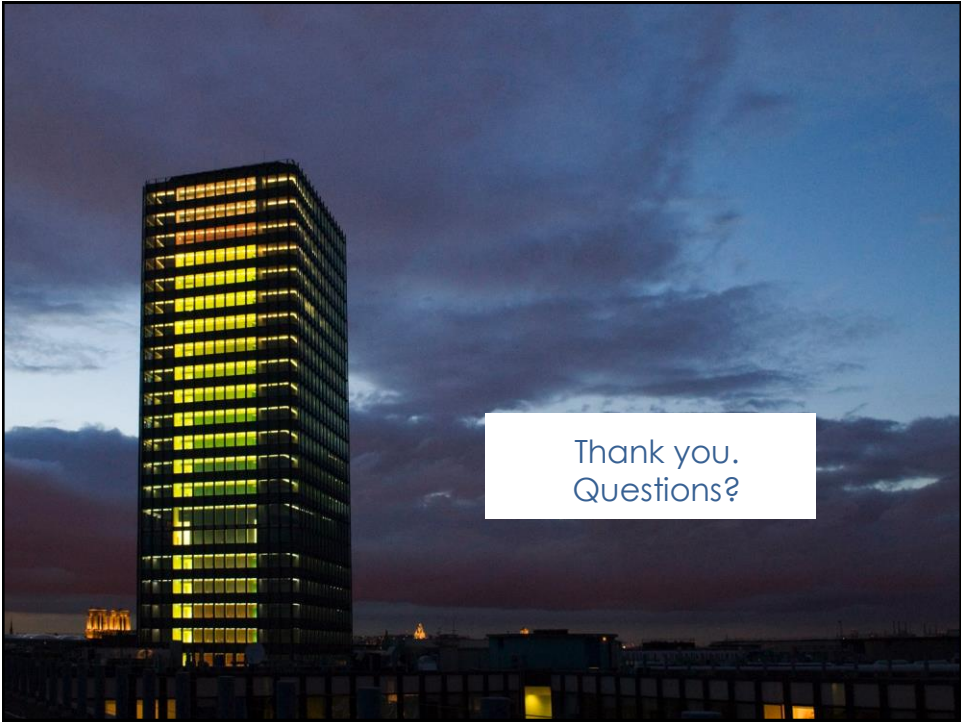
Reconciliation of the Criteria and Missions

- **Missions Can Seem to Contradict Stakeholders Criteria**
 - University missions have broader goals
 - Stakeholder criteria are often limited in scope
- **Looking to the Long-Term and Bigger Picture**
 - Cooperating in research with a large corporation may end up with the creation of a new local subsidiary ;
 - Attracting big companies helps small local ones to do more business ;
 - New innovative companies are good forward scouts on innovative markets and prepare ground for larger ones ;
 - Attracting smart students provides the local job market with talents for existing companies or to create new ones...

Balancing Criteria & Missions

When working with different stakeholders, a university must:

- Rely on an accurate definition of **its real missions, strategies and priorities**
- Negotiate with stakeholders to **broaden the scope** and **define the right performance indicators** consistent with these missions, strategies and priorities



Thank you.
Questions?