Measuring performance and enhancing the impact on the knowledge triangle

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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

- 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

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

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?