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Plenary Session : Public Policy Innovations to Foster Triple Helix
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**« Public Policies to Foster the Creation of University
Spin-Offs Firms in Europe: Expectations, Results and
Challenges »**

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Development of policies to foster the creation of university spin-off firms (USOs) in Europe

- ✓ Last two decades: Growing interest in the transfer of research results to industry with an emphasis upon the **licensing of innovations**
- ✓ Since the end of the 1990s, greater attention to the **creation of new ventures** that involves the spinning-off of technology and knowledge generated by universities **and** public research organisations (PROs).
- ✓ Measures and programmes to foster the creation spin offs in Belgium, France, Germany, Sweden, UK...

Creation of new schemes and instruments

- ✓ Changes in IP legislation and ownership of IP
- ✓ Changes of researcher status
- ✓ Development of TTOs, incubators in or around Universities and PROs
- ✓ Initiatives financially to support innovative start-ups and spin-offs in particular: 100% seed public funds, guarantee schemes, fiscal incentives... (to fill the so-called « **financial gap** »)
- ✓ Development of business plan competitions and various forms of entrepreneurship training... (to bridge the « **knowledge gap** »)

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What are the results?

- ✓ End of the 1990s/early 2000s: **increase** in the creation of USOs in Europe.
Mid 2000s: average number of companies began **to fall**.
In university incubators more and more firms have no direct links with research results...
- ✓ A majority of these firms still exist 5 or 6 years after creation.
But, these USOs are and stay very small enterprises.
- ✓ Contrary to Third Stream idea: USOs will not create enormous wealth for university (> a cost before a source of revenue)
- ✓ How can we explain the gap between policy expectations and these *disappointing* results ?

Genesis of these policies

- ✓ Rationale: The capacity of US universities to generate new companies = a model to catch up.
- ✓ Policy makers paid attention on a small number of successful US institutions
- ✓ How to create entrepreneurial university in a system far away from the mythical MIT environment (decentralized, competition...)?
 - > Difficulties to have the « same » results in a so different contexts...
- ✓ Unawareness of the **heterogeneity** of the universities and of the **heterogeneity** of the regions in which they are embedded.

A mythical view of what is a spin-off firm

- ✓ The public policies constructed on the basis of an outstanding process of creation and development of a USOs:

« *A firm created by a star scientist, often in partnership with a surrogate entrepreneur, on the basis of a licence from an university, and which grows steadily, this growth is boosted by venture capital and will lead the best firms onto the stock market... »*

--> but this trajectory is rather exceptionnal!

- ✓ The public policies ignore the **diversity** of the USOs

Not a homogeneous group of companies: the Venture Capital Backed company is rare and is one model among others...

No «One best way», no «One size fits all» policy

- ✓ Heterogeneity of **types of companies**, of parent **institutions**, of **TTOs**, of **S&T fields**, of **regions**... poses major challenges for the development and implementation of specific effective political tools and schemes.
- ✓ These support schemes need to be linked to the **objectives** of the commercialization of research through spin-offs.
- ✓ But what are these objectives ?

What objectives? What choices?

- ✓ Heterogeneity of **objectives of policies**:
 - to contribute to national competitiveness,
 - to create jobs locally,
 - to ensure a financial return for the university,
 - to transfer public research results to industry...

- ✓ Policy makers at different levels (government, regions, universities...) have to make choices:
 - Should a university be selective and choose to support only 1 or 2 VC backed projects per year ?
 - Or should it encourage the creation of many small service companies ?
 - Should the authorities encourage the *creation* of USOs or should they concentrate on their *development* as many observers have proposed ?

- ✓ The multiple actors involved have some difficulties in defining their strategies. Both in universities and in national agencies or ministries, it seems that these choices are not, or seldom made.

USOs: as an indicator of performance?

- ✓ + the number of spin-offs created (as the number of patents) from a university is becoming an indicator of its performance, an indicator for its evaluation...
- ✓ Difficulties for the actors at the local or university level to define a policy... because they act in conformity with the criteria according to which they feel judged
- ✓ This leads to a uniform set of spin-offs (usually not following a VC logic, more and more often with « soft » links with the university knowledge or technology...)
- ✓ This situation limits the existence of deviant models, of original experiences or of institutional innovations... a centralised approach characterises the majority of European countries -> need for a more decentralised focus.

Conclusions

- ✓ The creation of a USOs = **collective action**, not only of 1 or 2 academics-entrepreneurs but also :
 - of a TTO, of the lab, of the university, of customers and suppliers who will take risk, of industrials partners, of public authorities, of friends and relations who will invest in the venture, of a financial and industrial system...
- ✓ Success of some universities in spin-off firms: because they have a whole **collective** behind them. But the universities are embedded in an environment...
- ✓ Finally the public authorities **can't expect too much** from all universities in terms of spin-off creation. To expect too much is bound to lead to disappointment.

Policy recommendations: University strategies

- ✓ Need to adopt a strategic approach to knowledge transfer. Choices concerning:
 - institutional goals and priorities,
 - resource allocation,
 - technological emphasis,
 - patent strategies
 - and modes of technology transfer.

- ✓ Can choose a mixture of licensing, start-ups, sponsored research and other mechanisms of technology transfer.
 - But choices requires different resources and capabilities