Knowledge & Technology Transfer

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Commercialization is a multi-stage Process

• What is actually *Commercialization* of University-generated knowledge/technology?
• It begins at the University research lab – Point A
• It *may* end as a new product or process produced by a firm – Point Z
Now we need to look at the whole picture, and in particularly at

- The companies that will convert the inventions into products or processes
- The transfer process between the two ends
The real issues

• How to get from A to Z?
• How to do it systematically on a big scale?
Metrics used to evaluate
Commercialization = University Output indicators

Counts of:

- Inventions disclosures, patents
- Licenses granted, Royalty income received
- R&D contracts signed, R&D revenue received
- Start ups formed based on inventions
So far we have been looking at

The start of the Commercialization process - the university inventions: How the TTOs handle R&D contracting, Licenses, Patents, and the formation of Start ups
What does it take to get from A to Z?

- Universities that generate "good" inventions
- Companies that have the capabilities and resources to turn the inventions into products/processes
- Intelligence service that informs companies of new inventions
- Models of effective transfer processes and TT management
Let’s assume that

1. The majority of universities generate enough *good* inventions.
2. The majority of *big companies* have the resources and capabilities to learn of such inventions, and to turn them into products/processes.
Let’s concentrate on

• How to make SMEs aware of new inventions, and of the business opportunities they represent
• How to assist SMEs with obtaining the resources and capabilities necessary to convert inventions into products/processes
• How to make the KTT itself more systemic and effective
How does University transfer knowledge to Industry?

- Scientific publications, conferences, courses
- Graduates and faculty
- Contracted R&D
- Licensing of patents
- Collaborative research projects
- Exchange of researchers
How does a company absorb the new knowledge and convert it into a product?

• Not enough information on the company side of KTT
Most effective KTT method

- Close R&D cooperation between the university researchers and the industry technologists working on solving a joint task
- Invention + Need = Innovation
- University-Industry KTT should be a declared/major objective
- More companies collaborate with academia
Some assumptions about universities

• How “good” are they really at generating “many good” inventions?

• Government should condition more academic research funding on collaboration with industry

• Universities should be assigned the Commercialization tasks