



What do we know now?

- Lots of models already out there (Waterloo-model)
 - Lots of attempts to solve the IP issue (Still IP problem—the partnership between industry and universities has been weakened over difficulties associated with negotiating IP rights in research contracts in recent times; university still thinks that each IP is really valuable)
 - Loosing industry partner due to change of role, company
 - University horizon long/industry short
 - Most of IP and tech transfer is a net loss to universities
 - IP to companies is a barrier to entry, but that is not the case for universities (mostly net loss for university)
 - Selling licenses is a losing value proposition?
 - Tech transfer offices often seen as bottlenecks
 - Still, industry feels that universities are increasingly saying that they should own all IP (not share)
 - Most research efforts do not materialize, do not get beyond concepts
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What do we know now?

- NSF has been addressing some these challenges thorough these programs:
 - ICORE
 - IUCRC
 - BIC
 - AIR
 - SBIR
- However, the funding for these program are too small, for the effort they take to acquire them
- University culture needs change
- Industry side needs to change, too
- Changes happening so quickly that university cannot keep up—industry perspective
- Overhead with dealing with industry is high
- It is easier for industry to acquire a startup than to go to university
- Some universities have incubators
- Different measures at industry and in academia; also in individual and organizational level
- Potential overlap, and misalignment
- “I can convince my company to invest in talent”



What are the gaps?

- Universities and industry have different:
 - Offerings
 - Concerns
 - Capabilities
 - Core competencies
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Recommendations

1. University/industry offer, concerns, capabilities, possibilities, hindrances for alignment , and successes need to be studied - NSF to potentially fund a study/ workshop with a goal to build innovation capacity and create jobs.(Innovation Matching Market study). (Impact to jobs, community, and society)
 2. NSF to possibly fund a study to understand the flow of university IP revenue, ROI, and opportunity cost. (National Academies report: Patent Systems for the 21st Century)
 3. NSF to catalyze faculty level and graduate level COOPs (learn from successes, IBM-faculty rotations) to scale innovation and jobs through entrepreneurship
 4. NSF to catalyze industry challenges focused university incubation
 5. A People - cyber infrastructure to support collaboration between industry-university collaboration, startups, angels, and VC ecosystems.
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