



***“Establishing and Maintaining  
An Effective and Efficient  
Technology Transfer Presence”***

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***“What is technology transfer and  
intellectual property and why is it  
important?”***

***John Fraser  
Director of Technology Transfer  
Florida State University***





***“What is technology transfer & intellectual property and why is it important?”***



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## **After this session, you should know:**

- ✓ What is meant by tech transfer***
- ✓ Why it is important to a university's mission***
- ✓ What it means to faculty, students, alumni and administrators***
- ✓ How do you measure it?***
- ✓ Evaluating your institution's need/potential***



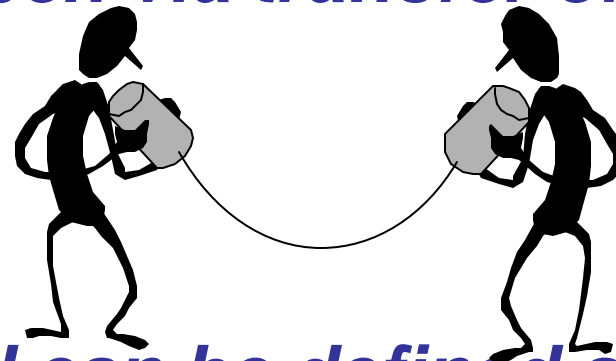
***“What is technology transfer & intellectual property and why is it important?”***



## **What is Technology Transfer?**

***✓ The exchange of knowledge between two organizations. It can happen via transfer of***

- ✓ Personnel***
- ✓ Publications***
- ✓ Materials***
- ✓ Licenses***



***✓ The technology involved can be defined and protected using patents, copyrights, trade marks, trade secrets. (These are NOT tech transfer, just some of the tools used).***



***“What is technology transfer & intellectual property and why is it important?”***



## **What is Academic Technology Transfer?**

***✓ Academic tech transfer includes all forms of tech transfer (personnel, publications, materials, licenses), but what is known as the “tech transfer profession” specifically involves the use of “licenses”.***

***✓ Why?***

- ✓ Because there is the certainty of ownership***
- ✓ Who owns what is very clear***

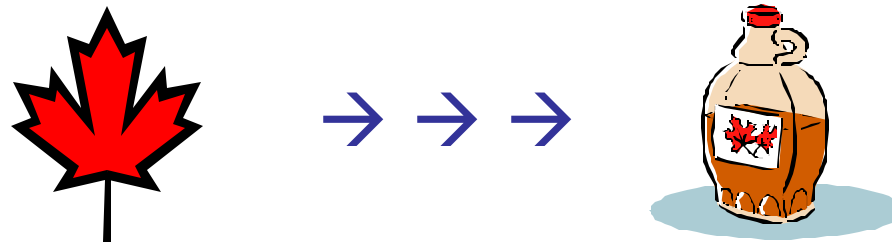


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## **An example:**

- ✓ ***The tech transfer of the Canadian recipe for turning maple sap into maple syrup***



- ✓ ***Transfer of personnel (employee, apprentice)***
- ✓ ***Publications***
- ✓ ***Materials (ingredients for flavor)***
- ✓ ***Licenses (commercial right)***



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## **Why is tech transfer important to a University?**

- ✓ ***Serves the university’s mission***
  - ✓ ***Education***
  - ✓ ***Research***
  - ✓ ***Community service***





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## **Mission statement: Internal**

***To enhance the reputation of the institution***

***and***

***to bring University-generated intellectual property into public use as rapidly as possible while protecting academic freedoms and generating an eventual financial return to the University, inventors and their departments.***



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## **Mission statement: External**

***To assist the private sector to create jobs in a specialized manner***

***and***

***to bring University-generated intellectual property into public use as rapidly as possible while protecting academic freedoms and generating an eventual financial return to the University, inventors and their departments.***



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**What it means to faculty, students, alumni, administrators:**

- ✓ ***Faculty – partnerships & resources***
- ✓ ***Students – enhanced experience & resume***
- ✓ ***Alumni – pride & future donations***
- ✓ ***Administrators – reputation & creative environment***



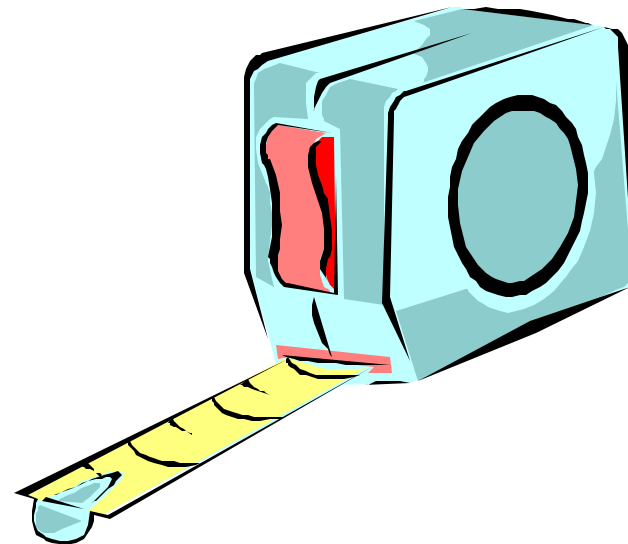
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## **How do you measure tech transfer?**

***✓ Historically, it was measured in terms of the inputs and outputs of what it took to run a tech transfer office:***

- ✓ Disclosures***
- ✓ Patent applications***
- ✓ Legal fees***
- ✓ Issued patents***
- ✓ NDAs, CDAs***
- ✓ Options to a license***
- ✓ Signed licenses***
- ✓ Royalty income***
- ✓ Licenses to start-up companies***

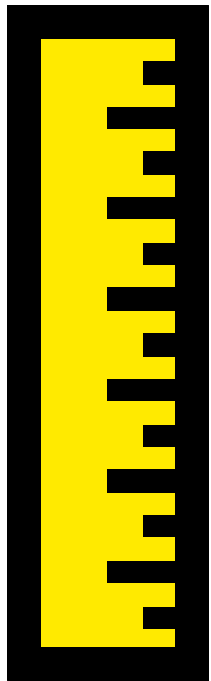




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**OK, so how do you really measure it ??**



- ✓ *Number and type of activities increase with age of office/program*
- ✓ *Starts with disclosures and provisional patent applications*
- ✓ *More mature programs generate license and equity income*

***See Handout – “Measuring Progress”***



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**Should you have a technology transfer office?**

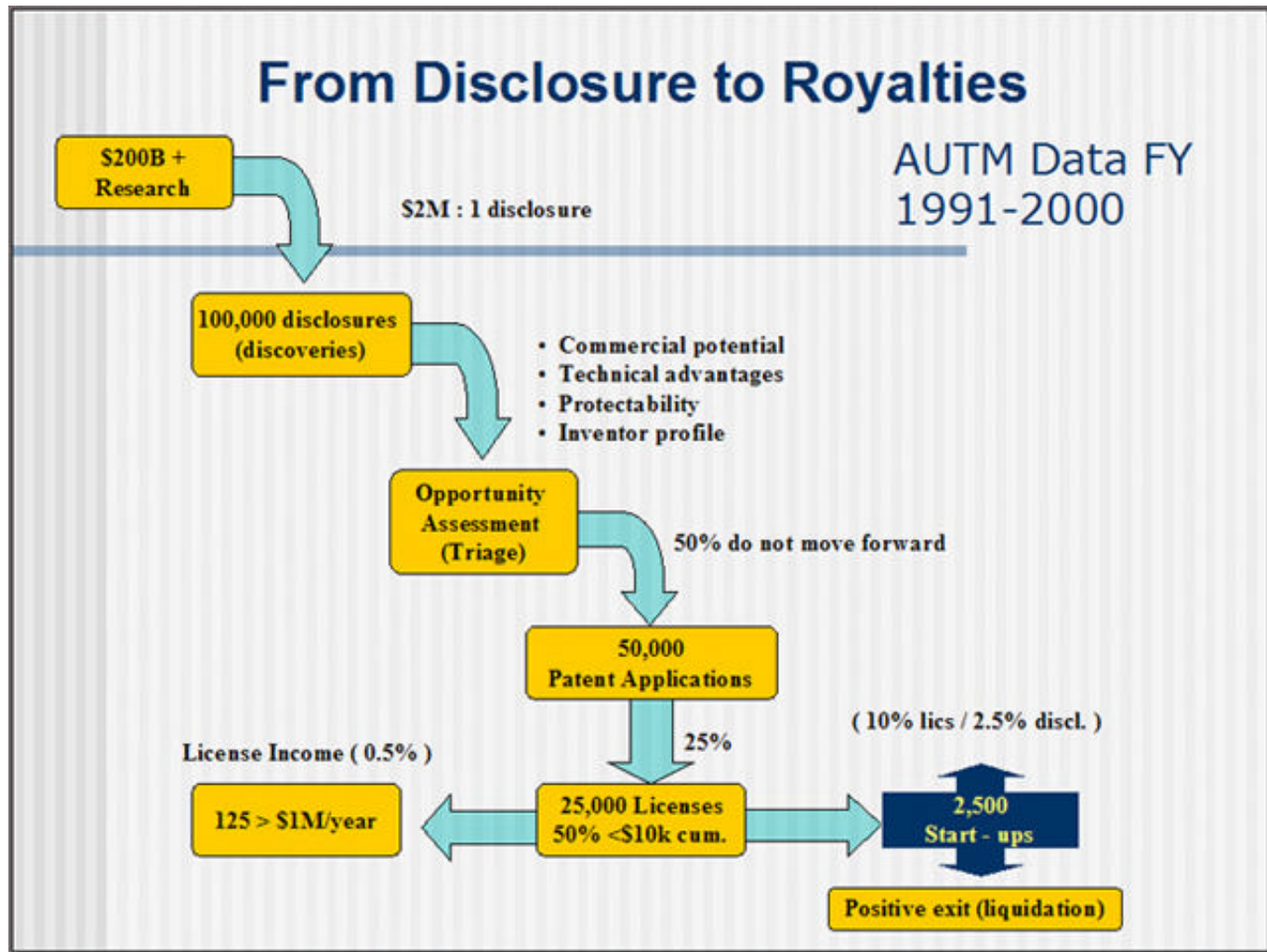
***Yes if you want...***

- ✓ To enhance institutional reputation***
- ✓ To enhance the creative environment***
- ✓ To see research transformed into product for the public good***
- ✓ To enhance access to new partners and new financial resources***





# “What is technology transfer & intellectual property and why is it important?”

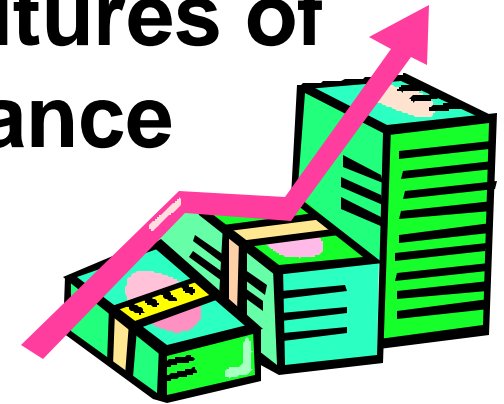




***“What is technology transfer & intellectual property and why is it important?”***



**The greater the research expenditures of an institution, the greater the chance the TTO will make a positive net financial contribution:**



***✓ According to a recent Boston University study, a U.S. university TTO must expend between \$100-250 million annually to have a greater than 50% chance of having a positive net contribution from its TTO.***

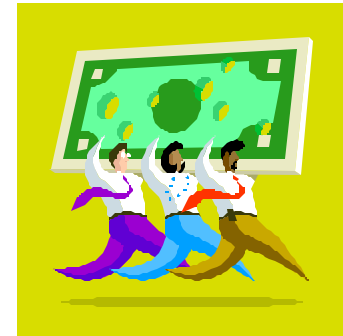
***✓ The TTO of a university having less than \$100 million in annual expenditures is much less likely to make a positive net contribution.***



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## **Number of staff matters**



- Our analysis suggests that TTOs with over 10 FTEs are highly likely to make a positive net contribution***
- Smaller offices are much less likely to make a positive net contribution***



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## **Age also matters**



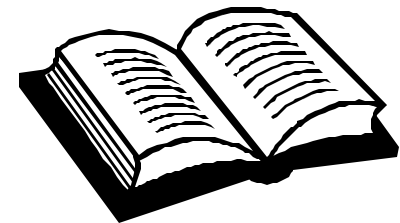
- ✓ Our analysis indicates that U.S. university TTOs generally have a positive net contribution after 15 years of operation***
- ✓ Those founded after 1985 have less than a 50% chance of making a positive net contribution***
- ✓ Those founded since 1996 have less than a 25% probability.***



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## **Definitions especially matter**



- ✓ *Under the Total Income View, the percentage of TTOs with a positive net contribution remained between 55% & 65% from 1992 - 2002*
- ✓ *Under the Administrative Income View, only 30% of TTOs have a positive net contribution*
- ✓ *Institutions that adhere to the Total Income View will view their TTOs contribution in the most favorable light*



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## **Getting started:**

- ✓ ***Start small with part-time or full-time person dedicated to the activity***
- ✓ ***Start with a program of education and build on an initial 5-year institutional commitment***
- ✓ ***Be alert to opportunities which do not involve patents (software, copyrights)***



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## **Getting started cont'd:**

- ✓ Build realistic expectations that like research, results will take time***
  
- ✓ Promote internally that tech transfer results include***
  - ✓ Research dollars***
  - ✓ Federal compliance***
  - ✓ Options***
  - ✓ Licenses, and***
  - ✓ Ultimately, financial return***



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***“We have been in the business for 30 years. As an Office, we financially broke even after 15 years. If we started over again, I am not sure we could get to breakeven much faster.”***

**Kathy Ku**

**Director, Office of Technology Licensing  
Stanford University**



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***Questions, Answers, Discussion***

***[jfraser@techtransfer.fsu.edu](mailto:jfraser@techtransfer.fsu.edu)***

***850-644-8637***