

**Developing and Supporting Associations
of
Technology Transfer Professionals & Quantitative
Assessment**

**Regional High-Level Summit for University
Presidents and Senior Policy Makers on EIE**

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Agenda

- ❑ Why do you need an Association
- ❑ The AUTM Experience
- ❑ Models
- ❑ The Roles of an Association
- ❑ Corporate Structures
- ❑ Running the Association
- ❑ Membership models
- ❑ What we need from Senior Leadership

Why Do You Need an Association?

- ❑ To talk to each other
 - ❑ Mutual support
 - ❑ Problem sharing
 - ❑ Solution sharing
 - ❑ Professional development
- ❑ To talk to Government
 - ❑ Demonstrate success
 - ❑ Ask for support
 - ❑ Ask for legal / policy changes
- ❑ To talk to Industry
 - ❑ Address systemic / legal issues

Why Do You Need an Association?

- ❑ To talk to Society
 - ❑ Journalists
 - ❑ Local communities
- ❑ To talk to the international community
 - ❑ Intergovernmental agencies
 - ❑ NGO's
 - ❑ The tech transfer community
 - ❑ To be a member of ATTP

The AUTM Experience

- ❑ AUTM was founded in 1974
 - ❑ 6 years before Bayh-Dole
- ❑ Called Society of University Patent Administrators (SUPA)
- ❑ Seven founders
 - ❑ Individuals at pioneer universities active in tech transfer
 - ❑ Decided tech transfer needed a different organization than NCURA / SRA
- ❑ Initial purpose
 - ❑ Lobby for a uniform government patent policy across all agencies
 - ❑ Led to Bayh-Dole Act in 1980
- ❑ First Annual Meeting
 - ❑ 1975 in Chicago
 - ❑ Then held in Washington, DC

AUTM Milestones

- ❑ 1975 First Annual Meeting
- ❑ 1978 First draft of Bayh-Dole Act
Affiliate Members added
- ❑ 1980 Bayh-Dole Act passed
- ❑ 1981 Newsletter started
- ❑ 1984 First educational meeting
- ❑ 1989 Name changed to AUTM
- ❑ 1993 Rapid growth in membership and meeting attendance
Regional meetings started
AUTM Annual Survey launched
- ❑ 1994 Tech Transfer Practice Manual published
- ❑ 1995 Website launched

AUTM Milestones

- ❑ 2010 Global Technology Portal launched
- ❑ 2013 TransACT Database launched

Conclusion

- ❑ Rome wasn't built in a day
 - ❑ You don't have to everything at once
- ❑ Get started and grow organically

The Roles of an Association

- ❑ Networking between institutions
- ❑ A point of contact with stakeholders
- ❑ Professional development
 - ❑ Training courses
 - ❑ Arrange for international training
 - ❑ For community leaders
 - ❑ Develop local curricula
 - ❑ For entry level personnel
- ❑ Help with marketing technologies
 - ❑ Portal
 - ❑ Example later

The Roles of an Association

- ❑ Metrics
 - ❑ More later
- ❑ Credentials
 - ❑ Membership in ATTP
 - ❑ Allows your courses to award CLE's towards RTTP qualification

Corporate Structure

- ❑ Eventually will want to be incorporated
 - ❑ Can't have a bank account till incorporated
 - ❑ Non-profit
 - ❑ AUTM is a non-profit corporation
 - ❑ Will need to write by-laws and Articles of Incorporation
 - ❑ Models exist and can be borrowed and adapted to local needs
- ❑ But you can start more simply

Unincorporated – MATTO

- ❑ MATTO
 - ❑ Massachusetts Association of Technology Transfer Offices
 - ❑ Founded at a meeting of the Massachusetts Life Sciences Cluster
 - ❑ 2001
 - ❑ Organized by Michael Porter
 - ❑ Harvard Business School
 - ❑ **EVERYONE** was there
 - ❑ Five TTO Directors were there
 - ❑ First Porter said: *“One of the strengths of the cluster is the efficiency of knowledge transfer.”*
 - ❑ We felt good!
 - ❑ Then he said *“One of the things the Cluster could do better was to improve the efficiency of **TECHNOLOGY** transfer.”*
 - ❑ We said “WHAT DID HE JUST SAY?”
 - ❑ “In front of our bosses?”



MATTO

- ❑ At next coffee break the five of us said: “We have to organize, find out why he said that and respond.”
 - ❑ Founded MATTO
 - ❑ Took four months, but we determined that Porter had been lying through his teeth
 - ❑ When we eventually got our hands on the raw comparative data it showed we did tech transfer **BETTER** than the four clusters he was comparing Massachusetts with!
 - ❑ Kept MATTO going
 - ❑ Initially, forum for Directors
 - ❑ Met at one of our offices
 - ❑ Host provided coffee and cookies

MATTO

- ❑ Today:
 - ❑ Now 18 years old
 - ❑ 28 major research institutions in Massachusetts
 - ❑ All with TTO's
 - ❑ Employment >300

MATTO

- ❑ There was a parallel state organization
 - ❑ The Massachusetts Technology Transfer Center
 - ❑ Provided administrative support
 - ❑ Together we created the Massachusetts Technology Portal
 - ❑ Cost \$15,000
 - ❑ MTTC put up half
 - ❑ MATTO members contributed the balance
 - ❑ Six offered \$1,000
 - ❑ Three offered \$500
 - ❑ Still operational
 - ❑ Updates automatically, daily
 - ❑ <http://www.mttc.org/tech-portal/>
 - ❑ The model for AUTM's GTP

MATTO

- ❑ Another MATTO project
 - ❑ A Joint Invention Agreement (JIA)
 - ❑ Paid Joyce Brinton to do it
 - ❑ Retired Director of Harvard for 25 years
 - ❑ Very good
 - ❑ Still available: <http://www.mttc.org/matto/>
- ❑ Today:
 - ❑ Still unincorporated
 - ❑ Still operates the Massachusetts Technology Portal
 - ❑ Still organizes educational seminars every two months
 - ❑ Still a forum for Directors to connect

Membership Models

- ❑ Institutional Membership
 - ❑ Individual academic institutions are the members
 - ❑ Each institution can have as many staff members participate as it desires
- ❑ Individual Membership
 - ❑ Each individual pays a membership fee
 - ❑ Generally reimbursed by their institution
- ❑ Institutional membership likely to be preferable in emerging economies
 - ❑ Allow full participation

Financing

- ❑ Initial costs are modest
- ❑ First Annual Meetings can be low cost
 - ❑ Host at a university
 - ❑ Host provides catering
 - ❑ Requires management buy-in
- ❑ Finance next stage through modest annual dues
 - ❑ Annual Meeting can generate a modest profit

Running the Association

- ❑ Phase 1 – Volunteer
 - ❑ President and Board divide up responsibilities
- ❑ Phase 2 – Paid Volunteer
 - ❑ President makes a formal time commitment and is paid for his / her time
 - ❑ E.g., KCA – President and their Administrative Assistant each 1/3rd time for KCA
 - ❑ AUTM shared Penny Dalziel with LES
- ❑ Phase 3 – Full time individual
 - ❑ Paid by Association
 - ❑ E.g., LES outgrew Penny
 - ❑ AUTM used her full time from 1988-2001
- ❑ Phase 4 – Association Management Company
 - ❑ E.g., AUTM has used Sherwood Group since 2002
 - ❑ Now Kellen Group



Success Factors

- ❑ Must be practitioner-driven
- ❑ Takes a leader and a committee of committed volunteers
- ❑ Initial funding needs modest
- ❑ Start small
 - ❑ Just one or two meetings a year
 - ❑ Strategic plan to grow
 - ❑ Add new functions incrementally
- ❑ Engage with government
 - ❑ Invite to be keynote speakers
- ❑ Claim every success, no matter how small

What Do We Need from Senior Leadership?

- ❑ Understand and support the concept of a tech transfer association
- ❑ Pay dues to support it
 - ❑ Either for an institutional membership
 - ❑ Or reimburse dues for individual TTO employees
- ❑ Encourage your Director to take a leadership role
 - ❑ Reimburse travel costs
 - ❑ Allow modest time allocation
- ❑ Speak at Meetings when asked
 - ❑ Mary Sue Colman came to AUTM Annual Meeting
 - ❑ Said:
 - ❑ It's not about the money (though we do expect to be fairly compensated)
 - ❑ Go back to your colleges and campuses and tell your Presidents and Provosts I said: "You're doing God's work"

Metrics



Agenda

- ❑ Why do we need to collect Metrics?
- ❑ What do we mean by Metrics?
- ❑ AUTM and Metrics
- ❑ Some success stories of Metrics
 - ❑ Denmark
 - ❑ UK
- ❑ WIPO's upcoming Metrics Initiative

Why do we Need to Collect Metrics?

- ❑ Individually
 - ❑ For internal use
- ❑ Collectively
 - ❑ Contributing internal data to Surveys

Why do we Need to Collect Metrics?

- ❑ Every manager should collect data on their operations
 - ❑ Inputs
 - ❑ Resources
 - ❑ Financial
 - ❑ Human
 - ❑ Outputs
 - ❑ Results
 - ❑ Impacts
- ❑ Senior Leadership will demand data
 - ❑ You will want presentations on your TTO's operations
 - ❑ Particularly at budget time!

Why do we Need to Collect Metrics?

- ❑ Tech transfer is no exception
 - ❑ When I got to both Dana-Farber and Boston University, found my predecessors had done a poor job of documenting and presenting their results
 - ❑ Improved presentation of results led to improved budgets
 - ❑ And increased visibility within the institution

Why do we Need to Collect Metrics Collectively?

- ❑ For internal use
 - ❑ How do we compare with peer-group institutions?
 - ❑ Where do we need to improve?
- ❑ To communicate with stake-holders
 - ❑ Senior Leadership
 - ❑ Trustees
 - ❑ The Press
 - ❑ Government
 - ❑ Critics

What do we Mean by “Metrics”

- ❑ Metrics isn't just about numbers
 - ❑ Stories are important too
 - ❑ The plural of “anecdote” is “data”

Ray Wolfinger, political scientist
 - ❑ Case studies are an important way to capture impact
- ❑ AUTM's early surveys were purely quantitative
 - ❑ The Press just focused on income
 - ❑ Led to negative public viewpoints
 - ❑ Started introducing stories
 - ❑ Improved public comment

The AUTM Licensing Activity Survey

- ❑ AUTM Survey launched in 1993
 - ❑ Collected data for 1991 and 1992
 - ❑ Could immediately see trends
 - ❑ Has evolved over time
- ❑ Royalty income was a very sensitive issue
 - ❑ AAU concerned that NIH funding would be reduced if royalty income was seen to be high
 - ❑ High level politics
 - ❑ AUTM President threatened with loosing his job if AUTM went ahead
- ❑ AUTM went ahead anyway
 - ❑ He kept his job!
- ❑ 120 Respondents
 - ❑ 34 (28%) requested confidential treatment in 1993
 - ❑ 2 requested confidential treatment in 1994



The AUTM Licensing Activity Survey

- ❑ Has become one of AUTM's flagship activities
 - ❑ AUTM data so good, government doesn't collect data
 - ❑ Uses AUTM data
 - ❑ Now have 27 years of relatively consistent data
- ❑ Over time, AUTM has:
 - ❑ Refined data set
 - ❑ Better data on royalty income
 - ❑ Start-up data
 - ❑ Eliminated irrelevant questions
 - ❑ Experimented with and rejected dead-ends
 - ❑ Equity valuation
 - ❑ Division by type of technology

What the AUTM Survey Is and What it Isn't

It is:

- ❑ A long term set of relatively consistent data on technology transfer:
 - ❑ Inputs
 - ❑ Outputs
 - ❑ Results
- ❑ Macroeconomic -- aggregated at the institutional level

It isn't:

- ❑ Microeconomic -- no data on individual transactions
 - ❑ Licensing terms
 - ❑ Financial terms
- ❑ Have addressed this through the TransACT database launched in 2013

It does:

- ❑ Provide information and long term trends in collective licensing practices
 - ❑ Low hanging fruit of the data on individual OTT operations
- ❑ Provide the basis for future further analyses; particularly when combined with additional data



Data Collected

- ❑ Characteristic of Institution
- ❑ Inputs
 - ❑ Personnel
 - ❑ Research funding
 - ❑ Legal fees
- ❑ Outputs
 - ❑ Invention disclosures
 - ❑ Patent applications and issuances
 - ❑ Licenses and options
- ❑ Impact
 - ❑ Income
 - ❑ Start-ups
 - ❑ Products launched
 - ❑ Success stories

Lessons Learned

❑ KISS

❑ “Keep it Simple, Stupid”

Kelly Johnson, Lockheed Skunk Works

- ❑ You can over-complicate things
- ❑ You can ask too detailed questions
 - ❑ Respondents will balk if things get too bulky
 - ❑ And not reply
 - ❑ Survey fatigue
- ❑ Once people have set up systems to respond to a survey, there’s an inertia to add new systems to answer additional surveys
- ❑ There are websites available for conducting surveys now that weren’t available in 2003
 - ❑ SurveyMonkey

Lessons Learned

- ❑ It's more than about the numbers
 - ❑ Press frequently focused on royalty income
 - ❑ A very poor metric
 - ❑ Lags all the other outputs
 - ❑ Licensees take time to develop technologies
 - ❑ But it was out there and we couldn't stop them
 - ❑ Started adding stories
 - ❑ In 2006, AUTM launched the "*Better World Report*"
 - ❑ Collection of stories
 - ❑ The very name sets the tone of the conversation
 - ❑ Tech transfer improves the world
 - ❑ Initially published annually
 - ❑ Now an on-line resource
 - ❑ <https://autm.net/about-tech-transfer/better-world-project>
 - ❑ Over 450 stories

The Impact of the AUTM Survey

- ❑ Has shaped the surveys of many other organizations
 - ❑ PraxisUnico
 - ❑ ASTP
 - ❑ KCA
- ❑ It collects the key metrics people want
 - ❑ Would like more data on Impact
- ❑ Is U.S.-centric
 - ❑ Needs some additions for non-U.S.:
 - ❑ E.g.:
 - ❑ Assigning patents
 - ❑ We rarely do that in the U.S. because of Bayh-Dole
 - ❑ Outside of U.S., considerable pressure to assign
 - ❑ International research funding important outside U.S.
 - ❑ E.U., NGO's, World Bank, etc.

Case Study – Denmark

- ❑ Denmark used to have the Professor's Privilege model
 - ❑ Common in Europe
- ❑ Transitioned to an Institutional Ownership model in 2000
- ❑ Government acknowledged that this would impose significant cost demands on universities
 - ❑ Agreed to fund technology transfer activities for 5 years
- ❑ Collected data from outset
 - ❑ 2000-2003
 - ❑ Inside Consulting, funded by Ministry of Science, Technology and Innovation
 - ❑ 2004 and on
 - ❑ National Network for Technology Transfer (“techtrans dk”)
- ❑ Metrics based on the AUTM Survey

Case Study – Denmark

- ❑ Initial performance of Danish universities was relatively poor
 - ❑ Understandable
 - ❑ A new activity
 - ❑ New organizations
 - ❑ New people
- ❑ Data showed a steady improvement year-by-year
- ❑ After five years, government funding was due to end
 - ❑ Income was still well below expenditures
 - ❑ Trends were very positive
 - ❑ Government agreed to continue funding for another five years
- ❑ Denmark now has a robust, stable tech transfer ecosystem

Case Study – Denmark

Learnings:

- ❑ Politicians respond to data
- ❑ Collect data from the very outset
 - ❑ Initial results will be bad
 - ❑ Show positive trends from Year 1
 - ❑ AUTM collected 2 years worth of data in the 1993 Survey
 - ❑ Immediately got trends

Case Study – U.K.

- ❑ In wake of the 2008 GFC, U.K. government ordered 25% across the board spending cuts in 2010
 - ❑ Including university research
- ❑ Tony Raven, then at U. of Southampton, and Tom Hockaday, then Isis Innovations (Oxford), had data on their spin-out history
 - ❑ Approached me for data on longevity and stickiness of university spin-outs
 - ❑ Questions in the AUTM Survey
 - ❑ Combined the two
 - ❑ Made the case to the government that university research translated to substantial economic development very quickly
- ❑ Academic research was explicitly exempted from the 25% cuts

Case Study – U.K.

Learnings:

- ❑ PraxisUnico has outstanding relations with U.K. government
 - ❑ Key officials attend every meeting
 - ❑ Could gain access to decision makers
 - ❑ Data had credibility

Subsequent Events:

- ❑ Beware of what you wish for, for you may get it!
 - ❑ U.K. government started to say to universities:
“You’ve been telling us that if we funded your research, you would positively impact society. We believed you and funded you. Now show us that you have positively impacted society.”
 - ❑ Research impact is now a major component of 5-yearly research assessment that determines research funding
 - ❑ Australia following suit

WIPO's EIE Metrics Initiative

- ❑ In planning stages for a year
- ❑ Launching in 2019
- ❑ Led by John Fraser
 - ❑ Assisted by me
- ❑ Fits logically within the framework of another WIPO EIE 2019 initiative
 - ❑ The Association Initiative
 - ❑ Led by me
 - ❑ Assisted by John Fraser!
 - ❑ The Metrics Initiative
 - ❑ Led by John Fraser
 - ❑ Assisted by me!

WIPO's EIE Metrics Initiative

- ❑ Plan is for EIE to conduct the Survey
 - ❑ Association tells us which institutions to include
 - ❑ Provides email addresses for respondents
 - ❑ EIE turns over the compiled data to the Association to write the analysis and publish the Survey

What Do We Need from Senior Leadership?

- ❑ Require your office to participate in the EIE Metrics Survey

Thank you for listening

Questions?

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