

The Role of the 21st Century TTO in The U.S. and Europe

Different Models – Different Goals ?

Track 1: Session 1

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The U.S. TTO: A Mature Model Facing New Challenges

- A Short Review of the U.S. Model
 - Roots: 1900 informal spinouts from engineering and science research – often with industrial participation
 - 1912: Universities and Inventors seek 3rd parties to patent and commercialize
 - 1932: WARF organizes as first TTO; handful of others tended to let inventors handle patenting and commercialization
 - 1930s-1960s: Some research universities tried to implement IP policies/institutions began to take title

The U.S. TTO: A Mature Model Facing New Challenges

- 1950s – 1980: University research part of government procurement. In most cases, government owned any resulting patents; some waiver to universities with established TT functions
- 1980: Bayh-Dole becomes law; universities have ownership rights from government and the growth of the modern U.S. TTO begins
- 1980 – 2010: U.S. universities develop a mostly centralized model built around university ownership

The U.S. TTO: A Mature Model Facing New Challenges

- The U.S. Model
 - Goal to move research to commercialization; using a “push” effort to hand-off to industry
 - U.S. TTOs follow similar structures & process:
 - are centralized
 - react to disclosures mandated by Bayh-Dole and university policy;
 - evaluate commercialization potential based on IP protection, benefits/limitations of innovation; market need;
 - commercialize using a licensing as the transactional mechanism
 - focus on business success factors (most often existing company)

The U.S. Model:

What The TTO Does NOT Do

- Engage in pre-commercialization research or planning e.g.
 - Finding research funding
 - Research platform building
 - Building research partnerships except benignly through license requirements
- Become involved in knowledge transfer not associated with commercialization
- Act as a consulting intermediary
- Become a partner in venture funds
- Manage Incubators or proof of concept centers

The U.S. TTO: 2008 Data (189 univ.)

- Disclosures received: 20,000+
 - 1 out of 14 licensed in same year as received (7.2%)
- New Patent applications filed: 12,072
- Licenses executed: 5,039 (44% exclusive, 54% non-exclusive)
- Startups: 595 (15.8%)
- Small companies licensed (49.2%)
- Large companies licensed (35.1%)

The U.S. TTO: 2008 Data (189 resp.)

- Royalty data
 - \$3.4 billion; running royalties, equity, other
- Startup data
 - Most funding from friends and family
 - 2nd highest – venture
 - Least – angel networks
 - 72.3% stayed in university home state

Challenges for U.S. TTOs: Building New Commercial Opportunities

- Economic Development: A new kid on the block for public universities
 - Startups as the silver bullet of job creation
 - Creating value for use of tax payer funds (state)
- Bridging the Gap: Engaging in post-discovery, pre-launch activities: e.g. as facilitators of POCCs or other instruments/resources that will provide “gap” funding
- Becoming an active participant in Venture Funds

The U.S. Model: Time to Step In - or Stay Out

- Stepping In will require:
 - Building credibility with faculty
 - Building internal infrastructure to participate
 - Changing the TTO profile
 - Taking risk
 - New sources of funding
 - Diminished income
 - New metrics for measuring success

The U.S. Model: Time to Step In – or Stay Out

- Staying the course means:
 - Missing opportunities for building a more vibrant innovation environment
 - Building external linkages to meet economic needs of the day
 - Some degree of out-sourcing to build “gap” solutions
 - Ceding some solutions to others