



*The Only Government-wide
Forum for Technology
Transfer*

Crafting an Effective Technology License (Patent/Copyright)

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MARK REEVES

- FLC Southeast Regional Coordinator (2005-present)
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AGENDA

- Where to start
- Intellectual property valuation and financial consideration
- Exclusivity, fields of use, license duration
- Termination
- R&D prior to product sales
- Sublicensing
- Gross sales vs. net sales
- Diligence provisions
- Leveraging (licensing + sponsored research)
- Questions



WHAT IS ORNL?

- DOE's largest multiprogram laboratory (Office of Science)
- Premier research programs in areas including advanced materials, leadership class computing, neutron scattering science, advanced energy systems, and systems biology.
- 4,200+ employees (~1600 Ph.D. scientists/engineers)
- Managed by UT-Battelle, LLC for the DOE
- Good neighbor and driver of the economy in the east Tennessee community



DISCLAIMER!

- The course will:
 - Develop approaches to working through common stumbling blocks in technology licensing
 - Provide tips on what has worked for me
 - Share tools that might be helpful
 - Help you avoid the effects of misinformation or lack of information



DISCLAIMER! (Cont.)

- What is presented here is NOT the only way
- I want to learn, too...so offer your past experiences as well
- Please speak freely—Disagree, offer alternatives, ask questions

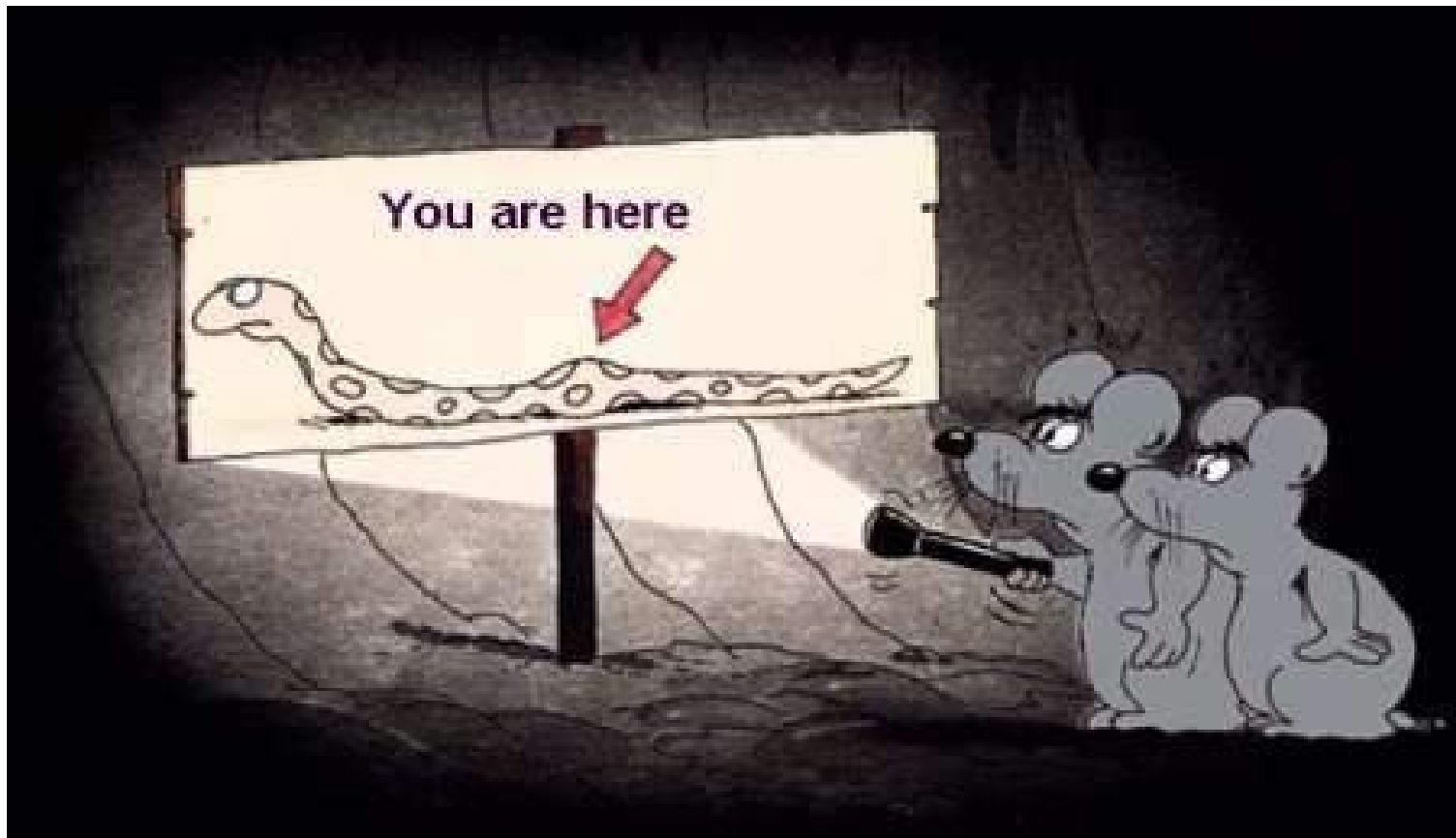


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WHERE TO START





WHERE TO START (Cont.)

Develop a Formal Licensing Strategy

- Good way of recording data about the technology portfolio and the institution's goals in licensing
- Offers a way to allow management and inventor participation/approval in developing the strategy
 - Keeps everyone on the same sheet of music
 - Could be very useful if future internal disputes arise
- Will be a “living” document (many updates as new data are gathered)



WHERE TO START (Cont.)

Develop a Formal, Technology-Based Licensing Strategy (Cont.)

- An internal formal document, with management approval
- Documents the:
 - State of the intellectual property/technology
 - Market
 - Competition
 - Fields of use
 - Candidate licensees
 - Pricing parameters
 - Other key factors



WHERE TO START (Cont.)

Finding a Partner and Cultivating Leads

- Inventors
 - Contacts through conferences, academia, journal articles, etc.
 - CRADA partners
- Previous licensees in similar industry sectors
- Financial sources
- Internet
- Market analyses
- Cold calling
- Ask contacts for leads



WHERE TO START (Cont.)

Finding a Partner and Cultivating Leads (Cont.)

- Inventors
 - Other than inventing the technology, the most important function in the licensing process is the principal investigator (PI) creating a candidate-company **technical champion**
 - Creates a “salesman” inside the candidate licensee company; much more effective than the licensing executive’s sales efforts
 - All other sources of licensing leads pale in comparison to what inventors can provide (in my humble opinion)



WHERE TO START (Cont.)

Qualify the Partner

- Use a license application/questionnaire or some other form of formal, expressed interest in licensing
- Formulate a term sheet based on license application (i.e., outline of proposed license agreement)
- License application provides several things
 - Essential data for filling in license agreement
 - Contact information
 - Indication of ability to perform



WHERE TO START (Cont.)

Qualify the Partner (Cont.)

- Diligence on prospective licensee(s)
 - Dun & Bradstreet
 - Company website
 - SEC filings (<http://www.sec.gov>), Yahoo! Finance, Motley Fool, etc.
 - Google them!
 - Income statement & balance sheet
 - History on new product introduction
 - Technology licensing history
 - “Dirt?”
 - Stable market player
- Reference librarians are a superb resource

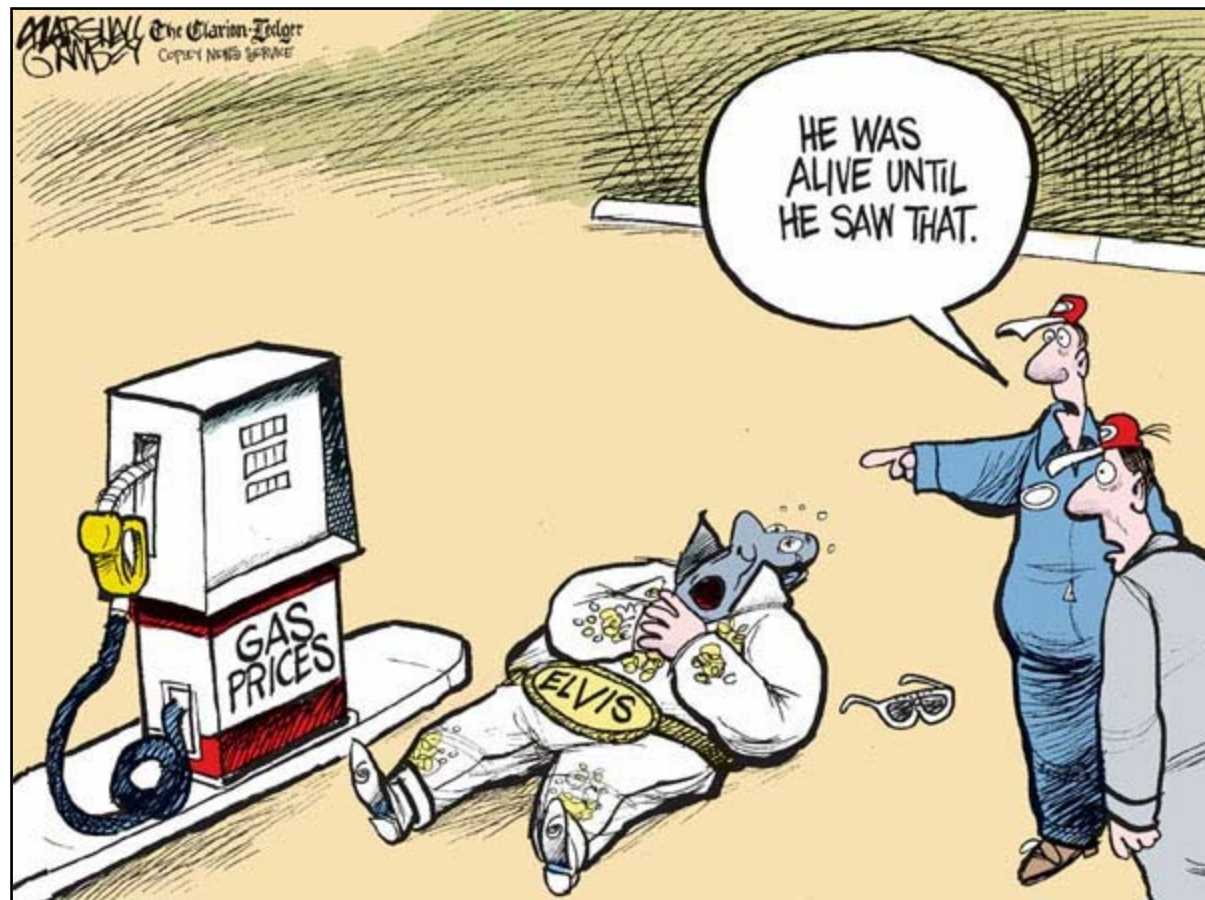


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IP VALUATION AND CONSIDERATION





IP VALUATION AND CONSIDERATION

- State of the invention (“time to revenues”); indicates degree of technology maturation required
 - Conceptual (licensor value +)
 - Proof-of-principle experiment (licensor value ++)
 - Prototype (licensor value +++)
 - Production scale (licensor value ++++)



IP VALUATION AND CONSIDERATION (Cont.)

- State of the IP rights
 - Who has rights, sole or joint ownership?
 - Divulgations, publications, bars, etc. (foreign rights impacts)
 - Can broad commercial claims be obtained?



IP VALUATION AND CONSIDERATION (Cont.)

- Degree of improvement to state of the technology
 - Minor enhancement (licensor value +)
 - Leapfrog existing technology? (licensor value ++)
 - Revolutionary? (licensor value +++)
 - Disruptive? (licensor value ++++)
- Level of commitment of inventor(s)



IP VALUATION AND CONSIDERATION (Cont.)

- Culture in the licensed industry
- Consumer perspective/receptivity
- How have similar products fared?
- Economic climate/marketplace economics
 - Robust/tech boom
 - Stagnant
 - Recession



IP VALUATION AND CONSIDERATION (Cont.)

- From the license application, term sheet, or some other form of interest, calculate a proposed financial compensation structure:
 - Up-front fee (perhaps equity?)
 - Minimum annual royalty/license maintenance fee
 - Royalty rate (% sales)
 - Perhaps equity
 - Perhaps sponsored research
- Calculate the potential profits and use the “25%” rule
- Determine upfront fee proposal from NPV on THEIR financials
- Base the term sheet consideration on THEIR financials, where possible



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EXCLUSIVITY

- Consider exclusivity in light of prospective licensee's ability to exploit IP, then tie to diligence
 - Diligence – Product development, capital investment, marketing efforts
 - Sales milestones – Quantify to retain exclusivity (or license)
 - Demonstrated ability to satisfy demand
- Where to start
 - Inventor
 - Patent claims analysis
 - License application



FIELDS OF USE

- Why employ fields of use?
 - Few licensees can or will exploit all fields of use
 - License various companies in different fields of use
 - Allows exclusive and nonexclusive licenses for a single technology
 - Allows licensor maximum market exposure when fields of use are easily deleted
- Considerable time and effort to draft license



FIELDS OF USE (Cont.)

- Always tie exclusivity to fields of use, where possible
 - Nonexclusive with limited field(s) of use
 - Exclusive
 - Exclusive with limited field(s) of use
 - Anything in between
- Generally speaking
 - Where possible use limited field(s) of use
 - Small market <\$25M, and/or niche technology – grant exclusive license
 - Large market >\$25M, and/or platform technology – assure licensee ability to satisfy demand; best approach may be multiple nonexclusive licenses and let the market choose the winners



FIELDS OF USE (Cont.)

Examples

- Lighting Technology
 - Use—Interior, exterior, residential, commercial
 - Size—Wattage
 - Application—Automotive, aircraft, machinery, biological growth
- RFID
 - Asset tracking
 - Highway traffic management
 - Personnel Monitoring
- Also consider geographic fields of use



FIELDS OF USE (Cont.)

- **IMPORTANT:** Write separate, parallel diligence requirements for each field of use
 - R&D and marketing expenditures
 - Sales
- Require annual minimums for each field of use
- For fields of use where the diligence is not achieved or minimum annuals are not paid, have the deficient field(s) of use automatically withdrawn from the license
- **CAUTION:** Crafting fields of use usually must keep in mind use of IP by licensee, not use of products by end user



FIELDS OF USE (Cont.)

Sample Retention Language

“Retention of these Fields of Use shall be contingent upon 1) the payment by Licensee of the Royalties and Minimum Annuals specified in Exhibit B, and 2) satisfying the diligence milestones specified in Exhibit C for each Field of Use. Should Licensee fail to make said payment or perform the diligence milestones for each respective Field of Use, such Field of Use(s) shall automatically be deleted from the License”



LICENSE DURATION

- License or fields of use duration can be limited by:
 - Time
 - Diligence metrics (level of investment, etc.)
 - Production or sales metrics
 - Timely payment of financial obligations



LICENSE DURATION (Cont.)

- For Licensee “head start”
 - Grant first licensee a nonexclusive limited field of use license
 - Then agree not to license any other licensee in the limited fields of use for a set time (limited nonexclusive)
- “Licensor agrees not to grant any other party rights in the field of use of ??? until January 1, 2010”



LICENSE DURATION (Cont.)

- Generally, license duration extends until last patent (or other IP protection) expires, or until diligence milestones are not met, or other breach
- Copyright licenses will almost surely be terminated before IP protection expires
- Licensee or Licensor may terminate with appropriate notice
 - Licensee for loss of interest in commercializing the technology
 - Licensor for recovering rights when licensee has failed to commercialize or meet diligence milestones



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R&D PRIOR TO PRODUCT SALES

- Almost all licensees will have a need for further R&D/maturation on the IP prior to product sales
- Where R&D is for an extended period (greater than 1 year) and licensee can't or won't pay entire up-front (execution) fee consider:
 - Including an R&D grant clause for a limited period of time for a portion of the initial fee
 - Followed by an option for licensee to convert to a commercial grant clause for the remaining portion of the initial fee



R&D PRIOR TO PRODUCT SALES (Cont.)

Sample Language

“Licensor grants to Licensee the exclusive right and license to utilize the Proprietary Rights of Exhibit A solely for research and development purposes. This right shall expire on January 1, 2009. No right to commercial manufacture, sell, or offer for sale Products is granted to Licensee”



R&D PRIOR TO PRODUCT SALES (Cont.)

Sample Language (Cont.)

“Should Licensee desire to expand the scope of the grant of this research and development license to a grant of an exclusive license to commercialize the Exhibit A, Proprietary Rights, Licensee shall first notify Licensor of Licensee’s desire to so expand the scope and to be bound by the payment schedules for such a license as set forth in Exhibit B, Execution Fee Royalties and Minimum Annual Royalties...



R&D PRIOR TO PRODUCT SALES (Cont.)

Sample Language (Cont.)

...Licensee shall also submit to Licensor, with such notification the balance of such Execution Fee...Upon receipt of the notice and payment to Licensor, the research and development license shall then be expanded to a grant to Licensee of an exclusive license within the field of use of ??? to commercially manufacture, have manufactured for Licensee, use, sell or offer for sale Products”



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SUBLICENSING

- Usually acceptable for grants of exclusivity
- Make the licensee ask for it; entry position for licensor on 1st term sheet should be to deny right to sublicense (negotiation tactic...get something in return for granting the right to sublicense)
- Structure where there is net benefit for both parties
 - Careful examination of sublicensing fees/consideration
 - No “pass-through” licensing



SUBLICENSING (Cont.)

- Examine whether to allow Licensee’s sublicensee to grant further sublicenses—USUALLY NOT
- *Bonafide* sublicensor or technology broker?
- Usually not acceptable for grants of nonexclusivity, except for software “shrink-wrap” licenses
- Consideration to licensor should not be significantly less, if at all, than if sublicensee had licensed directly from licensor
- Ask for right of approval of each new sublicense
- In the event of termination, sublicenses should become licensor’s licensees



SUBLICENSING (Cont.)

Sample Language

“Licensee shall have the right to grant sublicenses but sublicensees shall not have the right to grant further sublicenses.

“Licensee shall have the right to sublicense in the Field(s) of Use...”



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GROSS SALES VS. NET SALES

“Gross Sales means the sum of all invoices Licensee sends to purchasers for Products sold...” (example only)

- Gross sales—no exclusions
 - Simple
 - Easily auditable
- Net sales – many exclusions
 - Leads to negotiation
 - After both negotiating parties are gone, leaves open to interpretation
 - Keeps auditors in business...at YOUR expense!!!



GROSS SALES VS. NET SALES (Cont.)

- If licensee insists on Net Sales, licensor should insist on a higher royalty rate than on Gross Sales
- But for my money, a lower rate on Gross Sales is preferable to a higher rate on Net Sales



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DILIGENCE PROVISIONS

- Why diligence provisions?
 - Ensure commercial exploitation of licensed IP
 - Promulgate the technology to the greatest extent in the marketplace
 - That which is not exploited will be returned to licensor
 - Field of use
 - License
- Requires great care in drafting to be effective—you don't want to be gamed



DILIGENCE PROVISIONS (Cont.)

- Milestones based on sales (invoicing, revenues, units sold, etc.) are the easiest to monitor
- Tie to fields of use if multiple fields of use are granted



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LEVERAGING

Ingredients

- Patentable technology with commercializable claims
- Embryonic patent-based technology needing maturation for commercialization; or
- Copyrighted software that might need “productizing”
- Licensee (preferably a limited field of use license)
- Licensee willing to use licensor’s PI via Sponsored Research Agreement
- Applicable to a minority of licensing deals



LEVERAGING (Cont.)

Structuring the Deal

- Limited field(s) of use license with
 - Patent recovery costs
 - Up-front, minimum annual royalties and running royalty are preset
- Companion Sponsored Research Agreement (funds-in-CRADA) where newly generated IP is incorporated into the companion license – for the limited field(s) of use



LEVERAGING (Cont.)

Sample Language

“Licensee agrees to provide Licensor, by January 1, 2010 at least XXX million U.S. Dollars (\$XX,000,000) for research and development to be undertaken in collaboration with Licensee under appropriate agreements and in support of Licensee’s commercialization efforts relating to Proprietary Rights...”



LEVERAGING (Cont.)

Sample Language (Cont.)

“...Should Licensee fail to make any of the above research and development payments by January 1 of the respective year...the grant of right in the field of use of ??? shall be immediately revoked and the grant of right returned to Licensor on January 2 of the respective year for licensing to third parties without written notice. Further, the provisions of this Agreement allowing Licensee the ability to cure within sixty (60) days shall not apply to the above.”



LEVERAGING (Cont.)

Advantages

- Allows focused research directed to commercialization (not usually funded by government)
- Increases success - PI direct involvement (subject matter expert)
- Grows the “body of knowledge” and IP portfolio
- Develops out-fields of use for further licensing and possible leveraging with others



LEVERAGING (Cont.)

Advantages (Cont.)

- Inherent programmatic benefits
- Increases private sector laboratory funding
- Good PR
- May lead to regional economic development success (company may locate near source of R&D/expertise)
- Can grant license to foreground rights developed at licensee's expense if licensee has already licensed background rights (same financial compensation terms)



LEVERAGING (Cont.)

There can, however, be downsides to leveraging; outcomes you did not anticipate...





LEVERAGING (Cont.)

Possible Disadvantages

- Focused research may lead to programmatic conflicts
- Expectations by the licensee/sponsor must be managed by PI and laboratory management
- Conflict of interest pitfalls; e.g., PI receiving royalty sharing
- Care in working with other private entities with same or related technologies
- Sponsor may believe they now “own the lab”
- Failure to commercialize may be unpleasant
- Failure may result in unfavorable PR



LEVERAGING (Cont.)

Summary

- Leveraging is an excellent way to mature the technology
 - Usually the most focused research performed at a federal facility – for commercialization
- Leveraging can be negotiated as part of a license
 - As a diligence provision
- Researchers love leveraging
 - They take ownership in the commercialization
- Not without pitfalls—be careful!
- Usually only applicable to a minority of license deals



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FOLLOW-UP/QUESTIONS ???

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