



ISSUES IN VALUATION

Tim Wittig
Principal
Technology Management Advisors
SAIC
202 841-0655 ■ Wittigsall@aol.com



Syllabus

- Pricing Issues in a CRADA
 - Costing
 - Pricing
- Pricing Issues in a Patent License
 - Models
 - Issues
 - Examples



CRADA Pricing Issues

- What Work Will Be Done?
- What Are My Costs?
- What's the Value of My Part of the CRADA
- How Do I Want To Be Paid?

What is the Nature of the Deal?

- Does the Lab Intend to Receive Funds – The No Cost CRADA
 - Always Plan for the Taxpayer to Receive Equal Value
 - Is There An Existing Non-Monetary Exchange of Value?
 - Reduction to Practice In Return for License?
 - Adapt Technology to Military Purpose In Exchange for Prosecution of the Improvement?
 - Cross License?
 - Knowledge Expansion
 - Opportunity to Test a Potentially Useful Technology

What is the Nature of the Deal? 2

- What is the Work To Be Done?
 - Time of S&Es Only?
 - Get An Estimate From Technical POC
 - Insure estimate involves fully loaded rates
 - Don't forget time for communication and reports
 - Significant Materials Usage
 - Get an Estimate of Materials Usage
 - Usually Where a Series of Devices are Fabricated or Tested
 - Stockage Fee for Cost of Ordering?
 - Price Materials at Cost of You
 - Significant Equipment Use
 - Get Estimates of All Significant Equipment Use Costs from Owners
 - Include Depreciation, Set-up, and Calibration
 - Verify Through Branch Chief
 - Solves Subsequent Scheduling and Budget Problems

Isn't This Competition with the Private Sector?

- Same Service, Offered By Private Sector Firms?
 - Is There A Difference In:
 - Time of Access?
 - Equipment All In One Place?
 - All Services In One Place?
 - Educational Experience of Researchers
 - Intellectual Property Provisions

What is the “Value” of the Lab’s Services

Consider the Same Items Provided From a Firm Outside The Gate?

- What is Generally Charged By Outside Vendors For the Various Parts of the CRADA Tasks?
- Have you missed something???
- **Consider:**
 - How Quickly the Lab Can Do The Work
 - Add or Subtract From the Costs to Reflect Availability
 - Efficiencies Created By All Services and Equipment In One Place
 - Value of Accessing Equipment Not Otherwise Available.
- **General View** May not charge a profit!
 - Full Costs of CRADA Performance May be Retained.



What Will Be The Terms Of Payment?

Ask These Questions-----

- Who Is My Partner?
 - Financially Sound?
 - Chance of Early Termination?
 - Due to Technology Failure or Financial Incapacity?
- How Quickly Will the Work Be Done?
 - Long Period of Performance
 - Multiple Tasks
 - Multiple Parties
- Can I Predict Costs Now With Accuracy?
 - Do you need an error-contingency?

Form of Payment Options

- **Single Fee**
 - Any Excess Returned (with Accounting)
 - Good When Amounts are Small or Payment Over Time is Questionable.
 - The Best Option For the Lab!!
- **Several Payments as Work Continues**
 - Good For Small Firms or a Lengthily CRADA
 - Bad For Lab Since It Puts Payment At Risk Of:
 - Unhappy Researcher
 - Lackluster Results
 - Other Cash Flow Problems
- **Create a Fund That Must Be Replenished**
 - Minimum Amount Required for Work to Continue
 - Ends Expenditure of Funds If Partner Not Interested In Payment
 - Begins to Solve the Problem Of Duty To Continue While Dispute Is Being Resolved
 - May be Changed By Cost Experience

What To I Want To Receive?

Consider payment in forms other than money

- **“Accept, Retain, And Use Funds, Personnel, Services, Use of IP, And Property**
- Use Funds Received From A Collaborating Party In Accordance With Paragraph (A) To Hire Personnel To Carry Out The Agreement Who Will Not Be Subject To Full-Time-Equivalent Restrictions Of The Agency”

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Pricing Issues In Patent Licenses

- Valuation Models
- Issues that Effect Pricing
 - What is being licensed
 - Forms of License
 - Risk Issues
 - Payment Types
- Royalty Rate Comparisons

Valuation Models – an Overview

- These are useful conceptual frameworks
- Unfortunately, the model will rarely fit the technology
 - The place to begin the discussion of appropriate compensation
 - Gather the Facts
 - Consider the impact of the facts on each model
 - Revise as more facts are known
 - Make decisions

Technology Valuation Approaches-1

- **Cost Approach**

The cost to create and develop or to replace the assets under consideration.

- Useful approach where the technology is embryonic and market applications cannot be defined.
- If technology is narrow in scope so easy to "design around," the cost approach may be irrelevant.
- Good where there is an addition to an existing product that is identifiable

- **Market Approach.**

Uses comparable transactions between unrelated parties.

- Not as useful for early stage discoveries due to the confidentiality
- Most widely used since it reduces uncertainty – springs from facts

Technology Valuation Approaches-1

- Relief from Royalty Approach.

The Relief from Royalty Approach is used mostly in assignments or for fully paid up licenses.

- What the owner of the property would pay in royalties if it did not own the property and had to license it from a third party.
- Comparable royalty rates from Market Approach above may be used..

- Income Approach.

Values IP based on the present value of the future income streams expected from the asset under consideration.

With this invention, my product will last longer, sell more, return more profit

- Requires an understanding of costs and selling price
- Useful in an improvement situation where the licensed technology improves the selling price, reduces production cost, or extends the patented protection of the product.
- The income model can also be used to calculate a reasonable royalty rate based on the "25% rule" - 25% of the profits earned by the licensee as a reasonable royalty to the licensor.



This is one of the most difficult parts of licensing!

All that follow will impact the decisions you will make

Consider each individually and collectively

What is the Nature of the Deal?

Is This A:

- License In
 - Usually Associated With A CRADA
 - Research, Development, Etc, in Return for Gov. Use
- License Out
 - The Most Usual Form of License
 - Income Expected
- Cross License
 - Income May or May Not Be Expected



What is Being Licensed

- Consider Intellectual Property to be Like Real Property – It can be Subdivided
 - Consider Each Invention and Field of Use
 - Don't give things away
 - How much of the Pie am I providing?
- Is this a single patent or a family
- Strength of property being licensed
 - Is the licensed property well developed or speculative

What Kind of License?

- **Exclusive** (requires special findings)
 - Can Only Be Granted Once for Each Field of Use
 - Is of the Highest Value
 - Advertise for 15 Days
- **Partially Exclusive** (requires findings)
 - Agreement to Grant to a Limited Number of Licenses
 - Advertise for 15 Days
- **Non-Exclusive** (requires no findings)
 - Least Valuable
 - Quickest



Fields of Use

- Fields of Can be Separately Valued
 - Each Field of Use is Like a New Patent
 - Same Device in Different Fields
- Software Patents Should be Dissected for Uses and Users
- Material Patents Offer a Variety of “Manufacturers”, “Users” and Users
- Consider Geographical Areas

Risk Factors

Is My Licensee?

- Financially Sound?
- Experienced With Commercialization?
- Chance of Early Termination?
 - Due to Technology Failure or Financial Incapacity?
- **How Quickly Will Commercialization Occur?**
 - Long Time From License to Commercial Sale?
 - 8 Years is the Average
 - Multiple Products From the Same License?
 - Multiple Parties Involved?
- **Multiple Product Lines?**
 - Different Royalty Rates, Interim Payments?

What Can the Commercialization Plan* Tell You

- Ask for Balance Sheet for last 3 yrs
- Ask for Corporate Sources and Uses for prior year
- Only for the Commercialization of this Product or Service:
 - Ask for Monthly Sources and Uses for 1st year
 - Ask for Quarterly Sources and Uses for Next 4 yrs
 - Ask for Marketing Plan
 - Ask for 5 years of sales projections by product

*Now Deemed commercial and financial information - Section 4 of HR 209



What To Look For

- **What Will Be Commercialized**
 - Multiple Products? Maybe Separate Royalty Rates
- **What Will It Cost To Commercialize**
 - Does The Company Have the People and Money
 - Look At the Time Required. Progress Payments?
- **Look At the Impact of the Technology On the Product**
 - An Addition or the Heart of the Product
- **Look At The Cost of Manufacture vs. Sales Price**



Does the Plan Make Sense?

- **As Exclusivity Increases So Must Commercialization Capability**
 - All Technology Is Perishable, Be Critical.
- **Plan and Application Shows the Strength of the Licensee**
 - Also Shows Holes (Describe Skills Needed and How Obtained)
 - Cash, Personnel, Experience, Facilities, etc.
 - Deficiencies Show Where Teaming is Needed
 - Down Stream Commercialization Issues Often a Problem
 - Manufacturing Scale-UP, Packaging, Distribution, Training, Sales, Service Often Ignored
 - Money Cannot Always Make Up for Lack of Experience

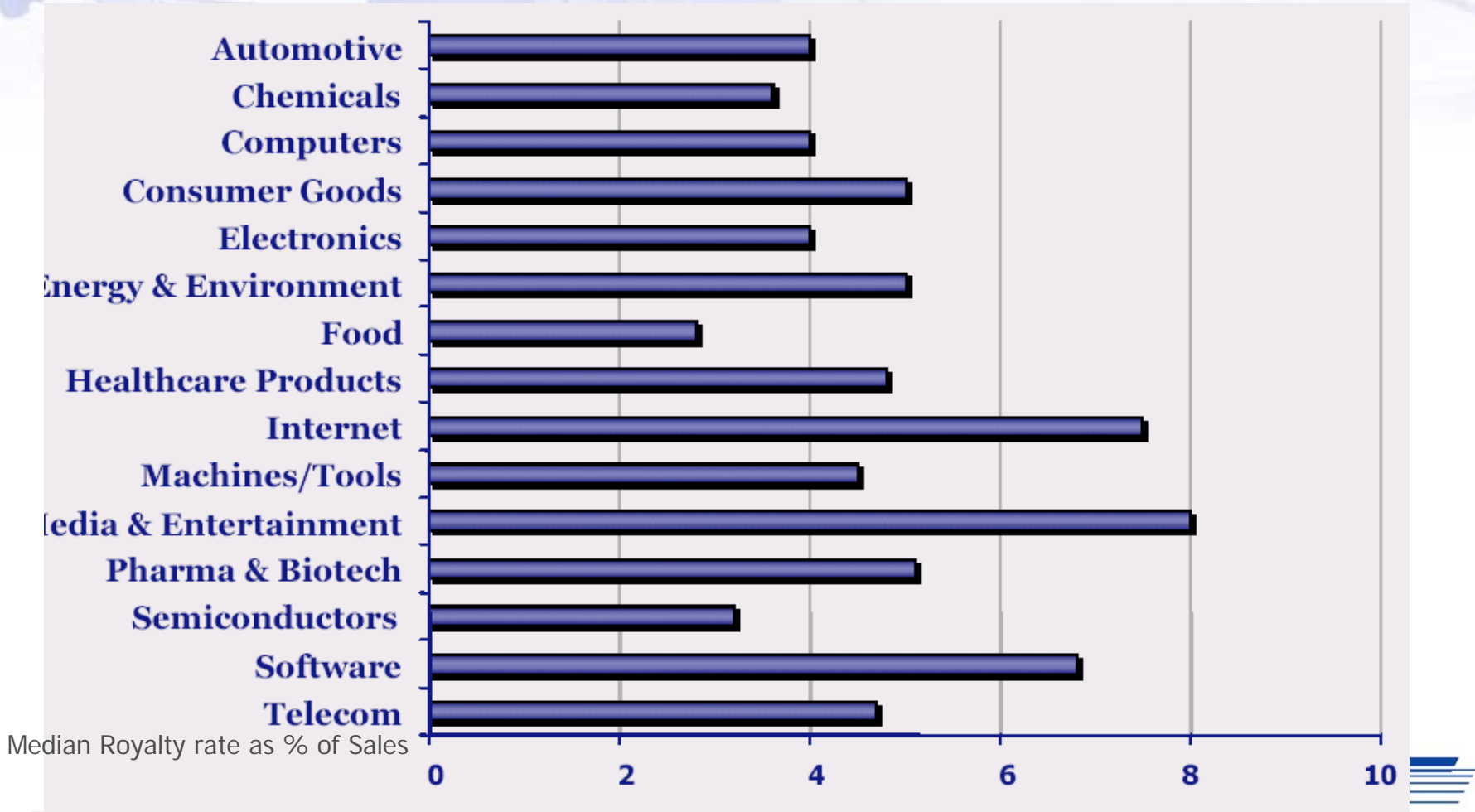
Payment Categories and Issues

- Risk Sharing Issues
 - Higher Risk Sharing, Higher Rewards, Lower Risk, Lower Reward
 - The More Payments are Fixed, the Lower the Risk
- Initial Payment
 - Usually Used To Recover Patenting Costs
 - Phasing for a Small Business?
 - Additional Payments as Patents are Issued?
- Progress Payments – Incentives?
- Royalty Payments
 - Define the Base Against Which Royalty Will Apply
 - Consider Alternative Royalty Schemes
- Minimum Payments
- Pass-Through Royalties
- Off-Sets
 - Minimum Payments
 - Foreign Prosecution Costs

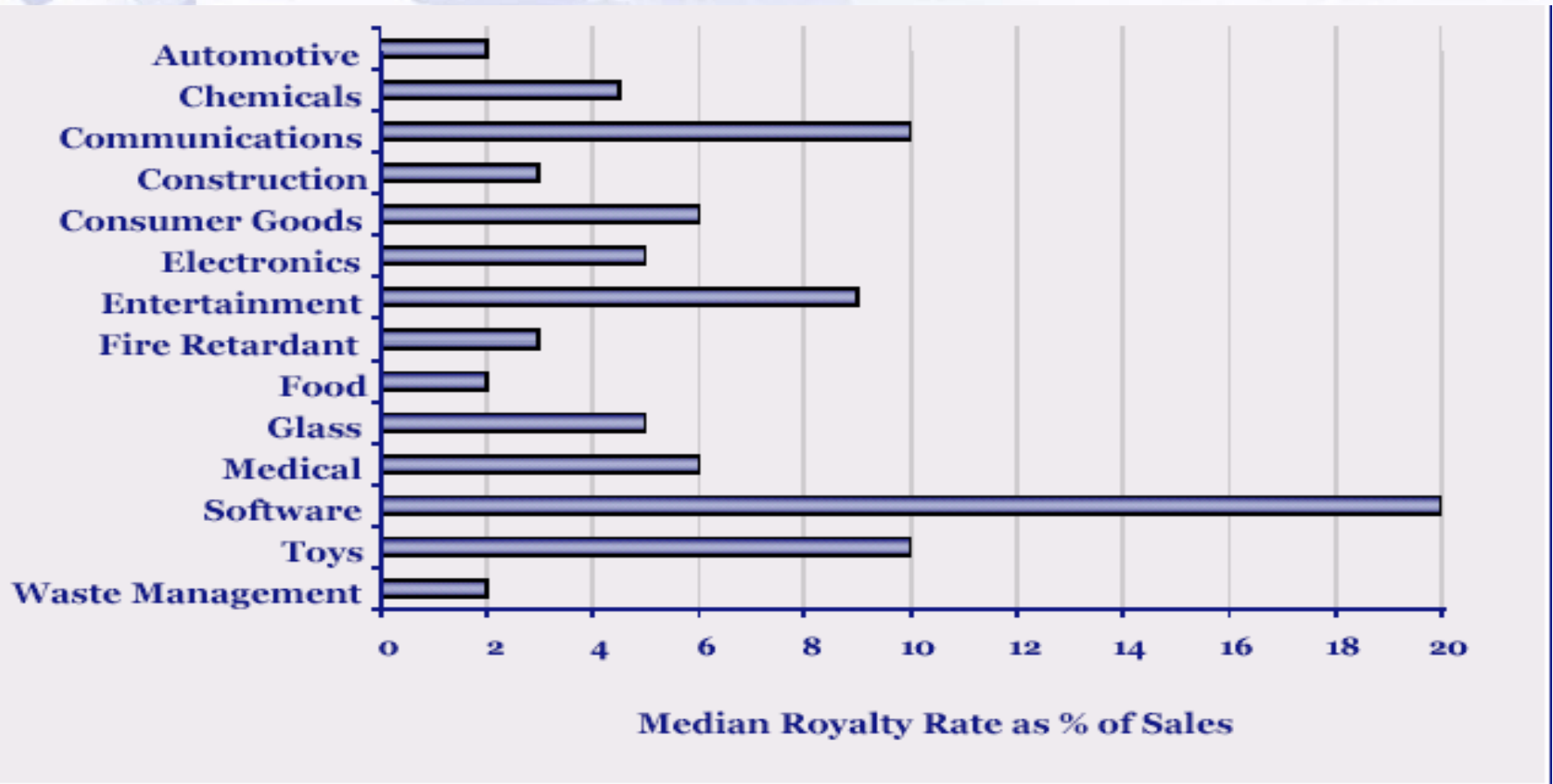
Royalties

- Royalty Payments
 - Profit Split Rule
 - One Quarter to One Third of Profits Before Tax
 - Usually Expressed as a Percentage of Gross Sales
 - Define the Base Against Which Royalty Will Apply
 - Market Approach
 - Compare to Similar Licenses in Same Industry
 - RoyaltySource.Com, RoyaltyStat.Com
 - rDNA.com, fvgi.com
 - *Royalty Rates for Technology*, IPRA, Inc.,
 - *Licensing Royalty Rates*, Aspen Publishers, Inc.
 - *Technology Licensing*, John Wiley & Sons,
 - *Insider's Guide to Royalty Rates*, Kent Press
 - Other Factors
 - Design Around Possible? - Alternative Approaches?
 - Place In Technology Cycle - Product Line Old or New?
 - Cost of implementaiton and production
 - Does This Invention Extend Product Life?

Royalty Rates – Royalty Source.



Royalty Rates – Technology Licensing



Royalty Rates for In-Licensing by Industry

Rose Ann Dabek, Procter & Gamble

Industry	0-2%	2-5%	5-10%	10-15%	15-20%	20-25%	>25%
Aerospace 50%	50%						
Automotive	52.5%	45%	2.5%				
Chemical 16.5%	58.1%	24.3%	0.8%	0.4%			
Computer 62.5%	31.3%	6.3%					
Electronics		50%	25%	25%			
Energy		66.7%	33.3%				
Food/Consumer		100%					
General MFG.	45%	28.6%	12.1%	14.3%			
Gov't/University	25%	25%	50%				
Health Care	3.3%	51.7%	45%				
Pharmaceuticals	23.6%	32.1%	29.3%			0.7%	0.7%
Telecom	40%	37.3%	23.6%				

Plan for Success and Failure

- What Happens if Your Licensee Hits it Big?
 - Are Royalties Your Only Reward?
- What Happens if Licensee Stops Trying?
 - Assignment and Sale Provisions
 - March-In
 - Termination?
 - Notice, Hearing, Reasonableness, get advice
- What Happens if your Licensee goes Bankrupt?
 - Milestone Requirements for Trustee
- Infringement Duties and Payouts
 - Who has the duty to prosecute



QUESTIONS?

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