

Strategies for Promoting Commercialization

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Promoting Commercialization in the Federal Laboratory

- Are Federal Laboratories different creatures than their counterparts in private industry?
- What is the context for commercialization in the Federal Laboratory context?

The Difference

- A Federal Laboratory accomplishes a core mission that focuses on a mission particularity that may not have a basis in economic or market efficiency.
 - DoD - the warfighter
 - NASA - mission space
- Therefore, commercialization (generally) branches from the technology that solves the root problem.
- The issue can therefore be viewed as commercialization as spin-off of mission focused technology.
 - 15 USC 3710(c)(1) – Functions of ORTA – “to prepare application assessments for selected R&D projects in which that laboratory is engaged and which in the opinion of the laboratory may have potential for commercial applications...”

Optimization and Satisfaction

- Optimizing the core mission can, but generally does not result in an optimized commercial objective.
- The result is that commercialization will incorporate a collateral byproduct
- This suggests that planning is required to maximize commercial offshoot.

Developing a Strategy (1)

- Determine the Laboratory Specific Competencies
 - Review Background Portfolios/Inventions
 - Review claims – not description – Perform legal analysis
 - Perform review of current laboratory thrusts and developments
 - Communicate with Laboratory Personnel
 - Identify key contributors and technical leaders
 - **Learn their personal interests and motivators**
 - **Lab Books**
 - **Assess interpersonal skills and self-actualization potential**
 - Evaluate developments that are being outsourced and what contributions Laboratory Personnel are contributing
 - For example – Conception or Reduction
- Review the Laboratory's specific competencies with other Federal government laboratories to see if competencies and portfolios can be combined.

Developing a Strategy (2)

- Determine Analogous Markets
 - **Where do the technologies fit?**
 - **Analyze the technologies against commercial potential**
 - **Prior Art and fields of use**
 - **Remember other government agencies**
 - **Segment the markets by:**
 - **Size**
 - **Reduction to commercial product (additional R&D)**
 - **Market culture**
 - **Do the suppliers license?**
 - **Will the suppliers partner**
 - **What for of IP protection is used?**
 - **Ask, “Where is the science headed?”**
- Compare Competencies with the Markets and narrow focus consistent with Laboratory Resources.
- This is an iterative process and also should be a dynamic process.

Developing a Strategy (3)

- Identify the high potential markets.
- Define protected space within each target market.
- In particular determine which research and development can occupy “real estate” within the protected space with minimal incremental resources to the Laboratory.
 - This might be a zero cost option such as adjusting the specification on a patent application

Developing a Strategy (4)

- Determine a advertising strategy
 - How will the world know what you offer?
 - Look for partners
 - Use FLC
 - Don't forget the R&D personnel
- Determine a licensing strategy
 - Get all the flexibility possible
 - Royalties
 - Royalty base
 - Market Scope and Definition
 - Duration
 - Exclusive or nonexclusive licenses
 - Know how should be exchanged
 - Consider the full spectrum of legal vehicles

Incorporate Barriers into Strategy

- Mission Limitations
- Client Funding Limitations
- Statutes
- Policies
- Politics
- Mutually Exclusive Goal Conflicts
- Personnel Motivations/Prejudices
- Non Protectable IP (copyright)
- Where can funds come in and where can they go?

Tactical Considerations (1)

- Communications
 - Breakdown barriers with inventors
 - Ascertain the inventive process and identify points of interaction for consultation
 - The earlier, the better.
 - Adjust the inventive process and commercial process seeking consensus
 - Depending upon where you are in the organization this includes higher and lower levels within the organization.
- Training
 - Personnel throughout the organization should have live training, which is reinforced periodically.

Tactical Considerations (2)

- Determine how the intellectual property is to be protected (if at all)
 - Patent
 - Publication (SIR)
 - Copyright
 - Contractually
 - Etc.

Tactical Considerations (3)

- Motivators
 - Award program
 - Success breeds success
- Change Management
- Efficiency
 - Combine Synergies
- Keep abreast of the Commercial Market
 - Conduct routine information meetings

Tactical Considerations (4)

- Metrics
 - Disclosures
 - Patents
 - Royalties
 - Infringing Actions
 - Consider metrics that track protection as well as technology transfer.
 - View the metrics as a uniform flow process so that deviation from

Conclusion

- Commercialization program begins with a self assessment to define inventory, skills, goals strategies and metrics.
- The program comprises a uniform process with predefined input, throughput and output.
- Supporting processes include training, metrics, feedback and revision.