

Section Code: RSCH-03

Developing/Commercializing a New Product? KT4TT Center is Here to Assist!!

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<http://sphhp.buffalo.edu/cat/kt4tt.html>

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Key Learning Objectives

- Identify 5 Key Best Practices Used in New Product Development.
- Discuss in detail 9 Areas of Technical Assistance available for New Product Developers from the KT4TT Center.
- Describe 3 Key Elements to successful Technology Transfer and Media Relations activities.



Acknowledgement

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Who or What is the KT4TT?

- NIDILRR grantee – from 1993-2008 the RERC on Technology Transfer; from 2008-2018 the Center on Knowledge Translation for Technology Transfer.
- Current Center is to contribute to the increased rate of successful technology transfer of rehabilitation technology products developed by NIDILRR-funded technology grantees.
- Provides Technical Assistance to current and prospective grantees (those writing proposals) on development project (NPD and TT) best practices.

Background

- Federally funded AT grant programs are being evaluated on the direct benefits their new AT products and services are contributing to an improvement in the Quality of Life of PWD.
- In RFPs, federal grant programs are stating that ***‘technologies developed or adapted must be designed for commercialization as consumer products or for integration into rehabilitation practice or relevant service delivery systems.’***
- Applicants/Grantees are expected to utilize best practices in NPD development and sound TT practices to generate planned outputs and achieve intended outcomes and impacts.

Five Best Practices in New Product Development

1. Clear stated identification of project and project goal

- a. If your project goal is to bring a product to the marketplace, you need to state that in your development project, and provide the plan on how you will get there.

2. What void is the product/device/tool/standard/guideline filling? Why is it needed?

- a. Perform in depth, not cursory, scoping or preliminary assessment reviews (business, consumer, technical).
- b. Team needs to be well versed in regulatory and business perspectives.

Five Best Practices in New Product Development (cont.)

3. Generation of a Timeline and Resource Allocations

- a. Show forethought and planning where each step of the project is identified and the time it will take to accomplish those steps or tasks.
- b. Show adequate amounts of researcher's time and staff time are allocated to ensure reviewers that the project will be completed.
Who will do What, When!
- c. Show adequate resources are allocated to allow completion of each step of the project. Don't underfund!

Five Best Practices in New Product Development (cont.)

4. Consumer/End User involvement in all stages of NPD!

- a. Plan to involve consumers/end users in every aspect of the project.
- b. Involve consumers early to identify needed design functions and features of the new product. Involve consumers in the evaluations of prototypes and the final design.
- c. Involve consumers to ascertain purchase intent and price point for the new product.

Five Best Practices in New Product Development (cont.)

5. Identify Path to Market Early On!

- a. Develop your Intellectual Property (IP) Strategy. Who and how will you protect any IP developed?
- b. If licensing is your goal, you need to screen and identify a potential partner as early on in the design process as possible. Delays here make licensing more difficult downrange.
- c. If you plan to produce and market the product yourself, you need to develop your Business Plan!



9 Areas of Technical Assistance (TA) Available from the KT4TT Center for New Product Developers

1. NtK Model and Literature Review

- a) **Applied Researchers and Engineers** – provides a complete vision of the research, development, production continuum; allows one to review supporting evidence that shows how to complete unfamiliar steps; use the toolbox to learn about resources that can assist at any step in the process.
- b) **New Product Development Professionals** – review supporting evidence to learn about methods, measures, tools and tips.
- c) **Grantees/Grant Applicants** – use the NtK as a template for project proposals; use the technology transfer plan template to guide your commercialization or licensing efforts.
- d) **Project Sponsors** – use the NtK Model as a checklist to ensure proposals include all steps needed to achieve commercial outcomes that generate socio-economic impacts.



9 Areas of TA Available from the KT4TT Center for New Product Developers (cont.)

- 2. Chronological Guide for Inventors** — Takes you through a sample invention timeline and provides definitions, examples, and resources as you proceed along your development path.
- 3. Intellectual Property (IP) Training Module** — Explains each type of IP protection (including which types of protection are most appropriate for different developments) and discuss the need for confidentiality and non-disclosure agreements throughout the development process.
- 4. Sample Contextualized Knowledge Package (CKP)** — Examples of how to tailor research findings for 5 different stakeholder groups (Consumers, Brokers, Manufacturers, Researchers, and Clinicians).
- 5. Sample Value Proposition** — Example of how to present and what to include in a Value proposition for a company.

9 Areas of TA Available from the KT4TT Center for New Product Developers (cont.)

- 6. Sample Commercialization Package** — Examples of commercialization packages that include the format and type of information that needs to be presented to potential licensing companies for their initial review.
- 7. Evaluation Resource Guide** — Describes the role and methods of evaluation through and beyond the development process.
- 8. Sampling of Assistive Technology Companies** — A listing of companies in the Assistive Technology field with their topic areas and contact information listed.
- 9. Media Outreach Strategies** — A presentation on how to contact the Media and what information to provide – Knowing What to Say, When to Say It, and How to Say It.



9 Areas of TA Available from the KT4TT Center for New Product Developers (cont.)

- For prospective or existing NIDILRR grantees to request Technical Assistance you may contact us at:

100 Sylvan Parkway, Suite 400
Amherst, NY 14228-1162
Phone: (716) 204-8606
Toll free Phone at: 1-877-742-4141
Fax: (716) 204-8610
jimleahy@buffalo.edu

- Or go to our web site at: <http://sphhp.buffalo.edu/cat/kt4tt.html>

Click on the Technical Assistance Section and fill out the form at:
<http://sphhp.buffalo.edu/cat/kt4tt/technical-assistance-and-resources/technical-assistance-form.html>

Key Elements Every Inventor Should Know about Technology Transfer/Commercialization: Orphan versus Mainstream AT Product

- What is an Orphan Product?
 - Orphan Product is one that has a very small market. Orphan products generally follow the same regulatory development path as any other product. Ex. A cell phone app to alert a deaf or hard of hearing individual to noises in their environment (ex. Siren, horns, alarms).
- What is a Mainstream AT Product?
 - Intended for general use rather than for use entirely or primarily by people with disabilities.
 - Larger market – can be used by general population in addition to people with functional limitations/disabilities/children/elderly – wide market appeal – will be sold through mainstream stores and web sites. Oxo good grips; jar opener; tv remote; glasses...



Orphan versus Mainstream AT

- Significant sales volume difference between Orphan and Mainstream.
- Orphan – due to low sales volume – is IP protection warranted? Cost of IP protection versus the expected sales return. Must know what your potential market will be – Line Butler example. R&D costs? AT mark-up on products at least 4:1 to stay in business. Product costs \$50 to produce – should sell for \$199!
- Mainstream AT - Coinulator example – patented. Larger market – not just developmentally disabled but also all children learning to count money. Caveat here on ancillary products. Little Fingers keyboard – not just for people who have a hand functional limitation – can't spread fingers – but also for children learning to touch type at an early age. Tupperware Children's Healthy Eating System (children, elderly, general).

Paths to Market

- Three Different Paths to Market.
 - **E commerce** (small scale limited production run) – offers an opportunity to create a demand for a product and to generate preliminary sales; Assurance that a market exists; testing the waters at low cost.
 - **Standard licensing** – Conventional path – present device to companies in the device's target industry sector.
 - **Market Cultivation** – Nurturing the vision of a new product or service that exceeds the currently expected product characteristics. Market cultivation results in the collaboration between the inventor, a potential customer (not necessarily the end user) and one or more manufacturers. Global Public Inclusive Infrastructure (GPII) example.

Five Crucial Points of Information An Inventor Needs to Compile

- What is the unmet Market Need your device addresses? What are consumers/users doing now to address that need or problem? What would they like to do? Must have consumer/user involvement early on. Need NDA here.
- How large is the market? Is it growing? Can it be broadened? Think outside of the box – AAC vocabulary lists example. Must have realistic numbers.
- What are the competing products/methods? What are their shortcomings? (hair dryer example).
 - Do a competing product search – prior art search – look for obsolete products – cane ice tip example, some researchers like to do things themselves – not looking what others are doing – reinvention of the wheel. 😊
- Who is going to buy/pay for the product? End user? Third party reimbursement? Someone else? And at what price?
- Technical/financial feasibility of device?



Key Elements Every Inventor Should Know about TT/Commercialization

- Vast Majority of inventions ***DON'T*** Make it in the Marketplace.
- Will your invention generate enough of a financial return to justify patent costs?
- Consider a provisional patent while you are testing the waters.
 - 50-65% of invention disclosures from U.S. universities are converted into U.S. patent applications (AUTM 2008).
 - 30-50% of U.S. Patent applications are converted into Utility patents. (AUTM 2008).
 - 99.8% of inventions fail. Only 3,000 patents out of 1.5 million are commercially viable. (Richard Maulsby, Director of Public Affairs USPTO).



Patent Misconceptions!

- Patent does not ensure overall functional uniqueness of your device.
- Patent does not ensure marketability.
- Patent does not ensure someone won't steal your invention.
- Patent does not automatically cover ancillary products.

Key Traits a Potential Licensing Partner Must Possess

- Is the corporation amenable to accepting and evaluating outside inventions? Have they previously entered into external licensing agreements with an outside entity?
 - If not, you are breaking new ground with the company and the internal corporate framework is not in place for a successful collaboration.
 - If yes, was the outcome successful? Were both parties pleased with the outcome?



Key Traits a Potential Licensing Partner Must Possess

- What are the corporations policies toward outside invention submissions?
 - Their total ownership of anything submitted? (Ireland example).
 - No claim to ownership by the company?
 - Will they sign your NDA agreement? Do they have their own NDA?
- If no policy exists, again you are breaking new ground. You may have difficulties working with the internal corporate group – not invented here syndrome.



Key Traits a Potential Licensing Partner Must Possess

- From the corporate standpoint, in the evaluation of your idea will you be working with a team or just 1 individual?
 - If 1 individual, your risk not knowing the corporate culture (only 1 person perspective) you risk that person leaving or being laid off; you risk timely communication failures.
 - If a team, you may have multiple contacts (in case 1 leaves – project will continue, you have multiple perspectives – everything from marketing to engineering to process).
- Does the corporation have a firm timetable and objective in mind?
 - For when your invention evaluation will be completed and decision made?
 - Do they have specific timeframes for the introduction of new products and you may have to wait for a window of opportunity? (new product introductions revolving around specific trade shows).

Key Elements for Successful Media Relations Activities

1. *Patience*

2. PERSISTENCE



3. *Perseverance*

Patience

Identify Media Target & Cold Call

1. Make convincing pitch
2. Leave message OR hang up after leaving 2 messages
 - Keep trying!
3. Contact administrative assistant
 - Make convincing pitch
 - Schedule a time to call when target is available

Persistence

Target has heard convincing pitch and is hesitant:

1. Ask: Is there any additional information the target needs that you can provide?
2. Follow-up with target at future point in time
3. Before hanging up, make next callback appointment
 - Always call back at appointed day and time

Perseverance

- Do not give up!
- Keep trying until you find a mainstream outlet willing to work with you
- Approach media coverage as if your financial livelihood depends on it

“I’m convinced that about half of what separates the successful entrepreneurs from the non-successful ones is pure perseverance.”
– Steve Jobs





Summary

- Visit the KT4TT web site at:

<http://sphhp.buffalo.edu/cat/kt4tt.html>

for additional information, more examples, and a Checklist titled – *‘From Pre-Proposal to Implementation of Development Projects’*.

- Electronic handouts are available on the ATIA web site and there are also a few hard copy handouts available here too.

Resources

- USPTO – Intellectual Property Information www.uspto.gov
- Delphion – Intellectual property information www.delphion.com/
- Abledata – AT products www.abledata.com
- KT4TT – AT Industry Profiles. Chronological Guide for Inventors, New Product Development Literature database, new product development model <http://sphhp.buffalo.edu/cat/kt4tt.html>
- Look for local start-up information – ex. WNY has a Start-up business Guide – everything from legal structure, licensing and permits, basic steps – for start-ups (including drafting a business plan) to tax incentives etc. http://www2.erie.gov/clerk/sites/www2.erie.gov.clerk/files/uploads/County%20Clerk%20Starting%20Your%20Business%20Brochure%206_2012.pdf
- From an attorney/legal perspective, Friedman & Razenhofer's web site – provides a nice start-up business checklist and even has a Small business Legal guide. http://www.wny-lawyers.com/getting_started_checklist.php



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