The Need to Knowledge (NtK) Model: Orienting Scholar "Technology Grantees" to Best Practices in Transfer & Commercialization

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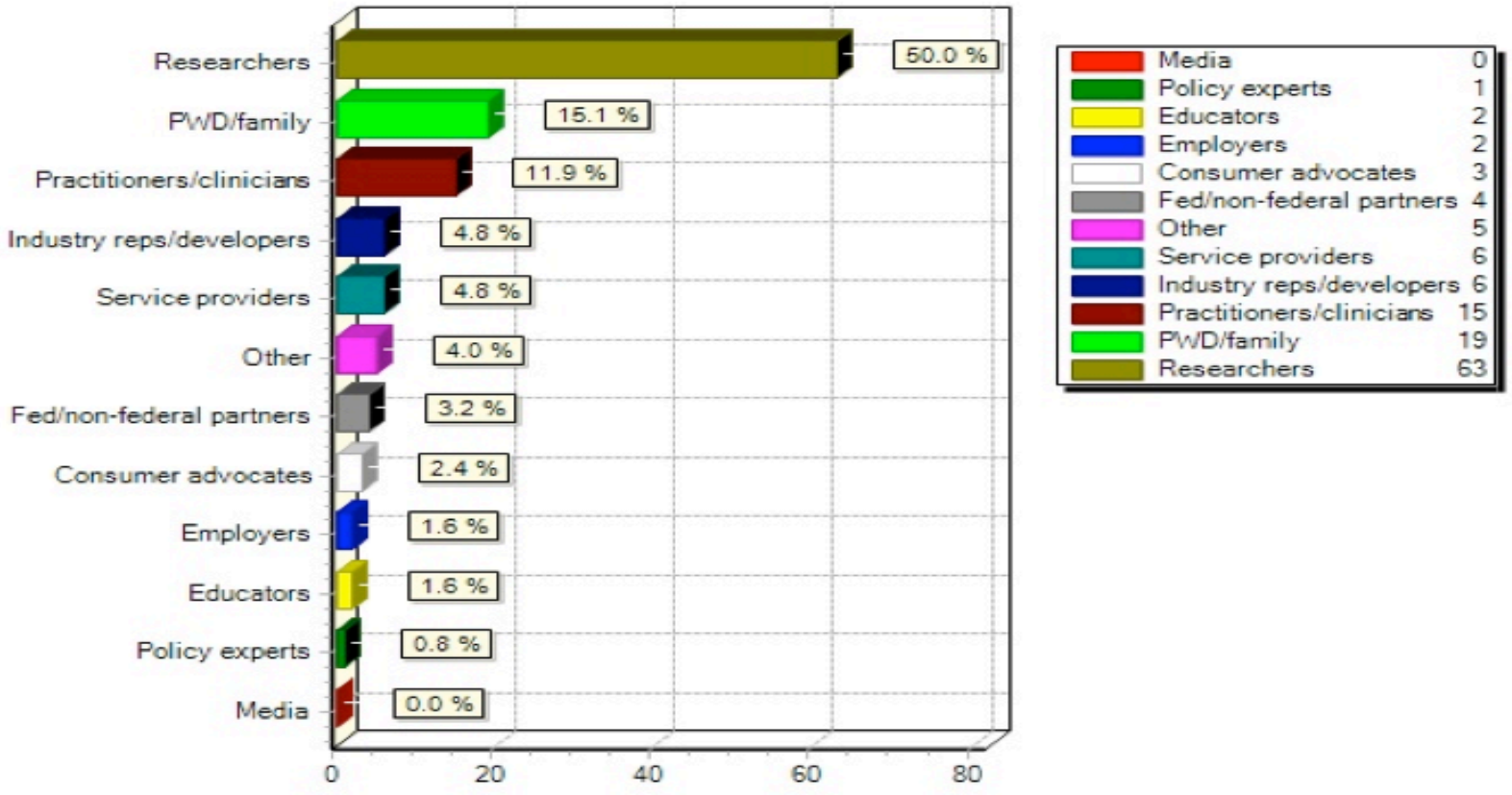
NtK Model addresses persistent challenge:

Focusing Technology Grantee's on NIDRR's Mission

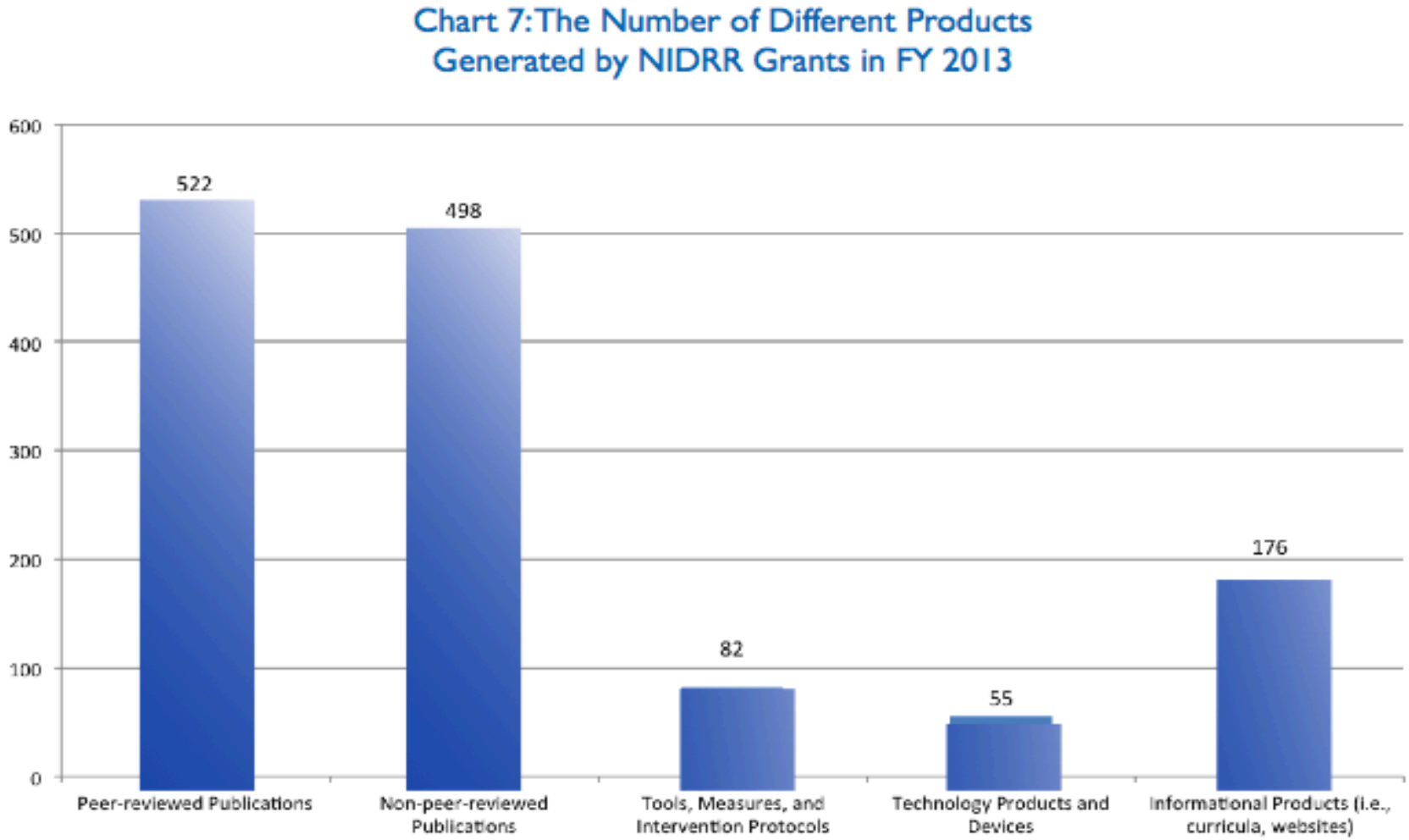
- *Improve the Quality of Life for Persons with Disabilities*.
  - Although deliberately not housed in NIH or NSF, NIDRR adopted the "science" procedures and metrics common to both agencies.
  - NIDRR competition criteria and review panels are designed for academic scholars, despite the range of activities authorized.
  - Grantees oriented toward scholarly peers and faculty career goals (publications), despite the range of stakeholder audiences.
  - Project outputs overwhelmingly reflect a culture of *Scholarship* rather than one of *Service to Society*.

Grantee's Primary Audience: Peer Researchers (KTDRR 2013)

Please select from the list below which audience has been most involved in your project's work.



Grantee Outputs = 80% papers vs. 5% products



Purpose of NtK Model Project

- Re-orient NIDRR's *"Technology Grantees"* – those funded projects intending to generate product & service outcomes.
- Place scholarly activity in proper context of broader Transfer & Commercialization process.
- Provide a "cook-book" approach to designing, implementing and managing such projects to optimize probability of eventual success.

KT Principle

NtK Model links values & goals of project sponsors, grantees and stakeholders;

Who are all critical to successful delivery and deployment of project outcomes;

Highlighting where their respective models, methods and metrics intersect, and how to communicate state of knowledge for active application and passive diffusion.

KT Principle

NtK Model's Stage/Gate and Logic Model constructs provided both a common reference and a unifying structure for all stakeholder;

-- Regardless of their training, language, culture and values –

Allowing users to find their own perspective within the broader model, and thereby identify their own role within the shared goal.

KT Principle

Given scholarly orientation of decision makers (Government and Academia);

Grounded NtK Model in evidence-base of all relevant literature published since 1985;

Evidence base designed to overcome objections to applying a structured process in general, and challenges to unfamiliar specific Stage activities and decision Gates.

NtK Model Value

- **Technology Grantees:**
  - Proposal structure – Review Panel liked.
  - RERC Tech Transfer & SBIR Phase III Plans.
- **NIDRR & Other Program Sponsors:**
  - Assess proposals; Track progress.
  - Compliance enforced – Funding continuation?
- **International Organizations:**
  - PDMA's "The Source"; Tech Transfer Tactics;
  - NSF; CIHR; AITA; AAATE; CNRTA.

Related Publications

- Lane, JP (2008). "Delivering on the D in R&D: Recommendations for Increasing Transfer Outcomes from Development Projects," *Assistive Technology Outcomes and Benefits*, Fall Special Issue. http://www.atia.org/files/public/ATOBSIF2008.pdf
- Lane,JP, Godin, B. (2013). "Methodology Trumps Mythology," *Bridges, The Translatlantic STI Policy Quarterly from the Office of Science & Technology, Embassy of Austria, Washington, DC, 36, December 2012/OpEds & Commentaries.*
- Lane, JP, Godin, B, *(2012).* "Is America's Science, Technology, and Innovation Policy Open for Business?" *Science Progress*, June 12, 2012, *http://scienceprogress.org/2012/06/is-america%E2%80%99s-science-technology-and-innovation-policy-open-for-business/*
- Flagg, J, Lane, J., & Lockett M. (2013). "Need to Knowledge (NtK) Model: An Evidence-based Framework for Generating Technology-based Innovations." *Implementation Science*, 8, 21, http://www.implementationscience.com/content/8/1/21
- Stone, V. & Lane J (2012). "Modeling the Technology Innovation Process: How the implementation of science, engineering and industry methods combine to generate beneficial socio-economic impacts." *Implementation Science*, 7, 1, 44. http://www.implementationscience.com/content/7/1/44.
- Lane, J & Flagg, J. (2010). "Translating 3 States of Knowledge: Discovery, Invention & Innovation." *Implementation Science*, 5, 1, 9. http://www.implementationscience.com/content/5/1/9.

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ACKNOWLEDGEMENT

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