Knowledge Translation
KT4TT
Technology Transfer

Knowledge Translation Across RERC Activities

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NATIONAL INSTITUTE ON DISABILITY AND REHABILITATION RESEARCH

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Presentation Outline

- KT- What is it and why does it matter?
- What is currently being done by RERC's?
- What else can be done?

NIDRR's Goal: Impacts

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Outcomes

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How do we get there?

Outputs

KT

Stakeholders

Outcomes

Impacts

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What is KT?

All of NIDRR's centers and projects will carry out KT.

- *KT is a process of ensuring that new knowledge and products gained through research and development will ultimately be used to improve the lives of individuals with disabilities and further their participation in society.* *(2010-2014 proposed LRP)*

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What is KT?

- KT takes place in a complex system
- Interactions vary in intensity, complexity and level of engagement
- Focus on the needs of the knowledge users

- Key Components:
  - Involve relevant stakeholders in design and conduct
  - Assess and disseminate
  - Translating findings into usable information

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KT versus KDU?

- KDU
  - End of grant activity
  - Linear, mechanical process of information transfer
  - Focus on “pushing” knowledge out into use

- KT
  - Integrated activity
  - Interactive, nonlinear process
    - Dependent on the beliefs, values, circumstances, and needs of intended users
  - Needs and anticipated barriers shape research, development, and dissemination activities

Relationships

What is Currently Being Done?

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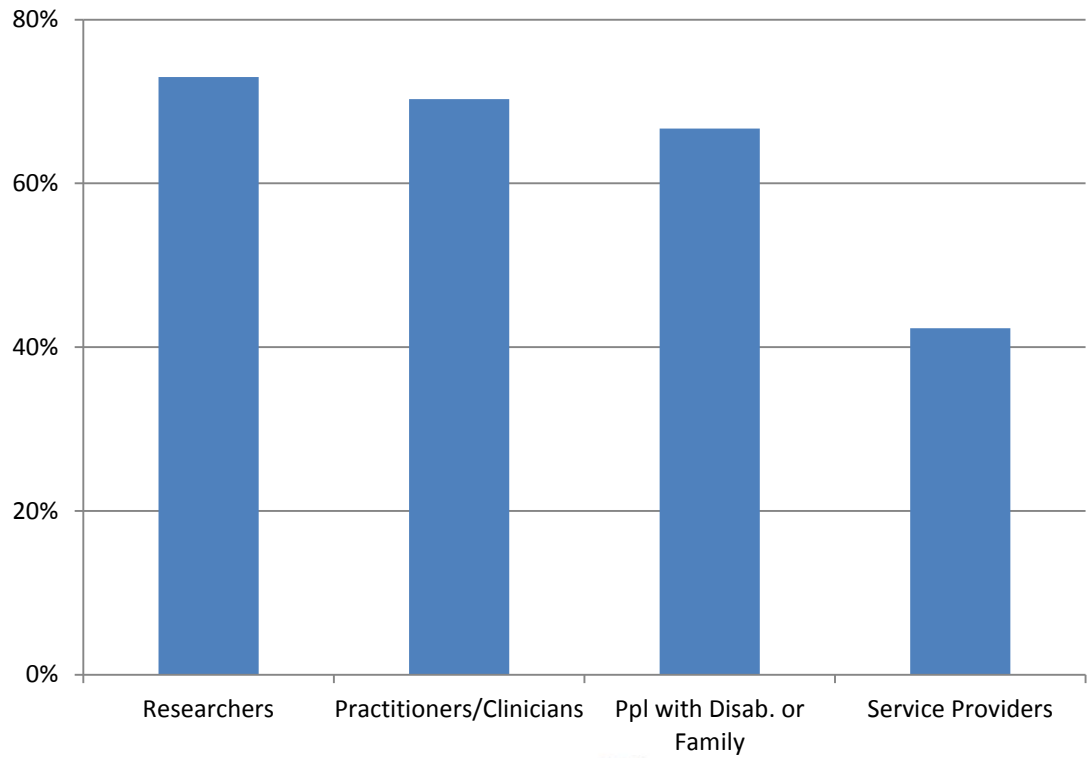
Target Audiences



Dissemination and Research Utilization Strategies

- Present papers or lectures (95.5%)
- Scholarly articles (91.9%)
- Annual/final reports (74.8%)
- Trainings (71.7%)
- Websites/pages (68.5%)

Measuring Impact

- Participant counts (72.2%)
- Material requests/distributions (56.7%/52.6%)
- Citation searches (51.5%)
- Participant surveys (40.2%)
- Interviews (24.7%)

Barriers to Reaching Target Audience

- Limited funding
- Limited planning time

- Comments
  - Saw KT as an end of grant activity
  - "…dissemination and/or utilization activities would take away from this project's primary work and focus."

What Else Can Be Done?

Three Different Methods yield Knowledge Outputs in 3 Different States

Scientific Research Method ▶

Conceptual Discovery

Engineering Development Method ▶

Prototype Invention

Industrial Production Method ▶

Commercial Product

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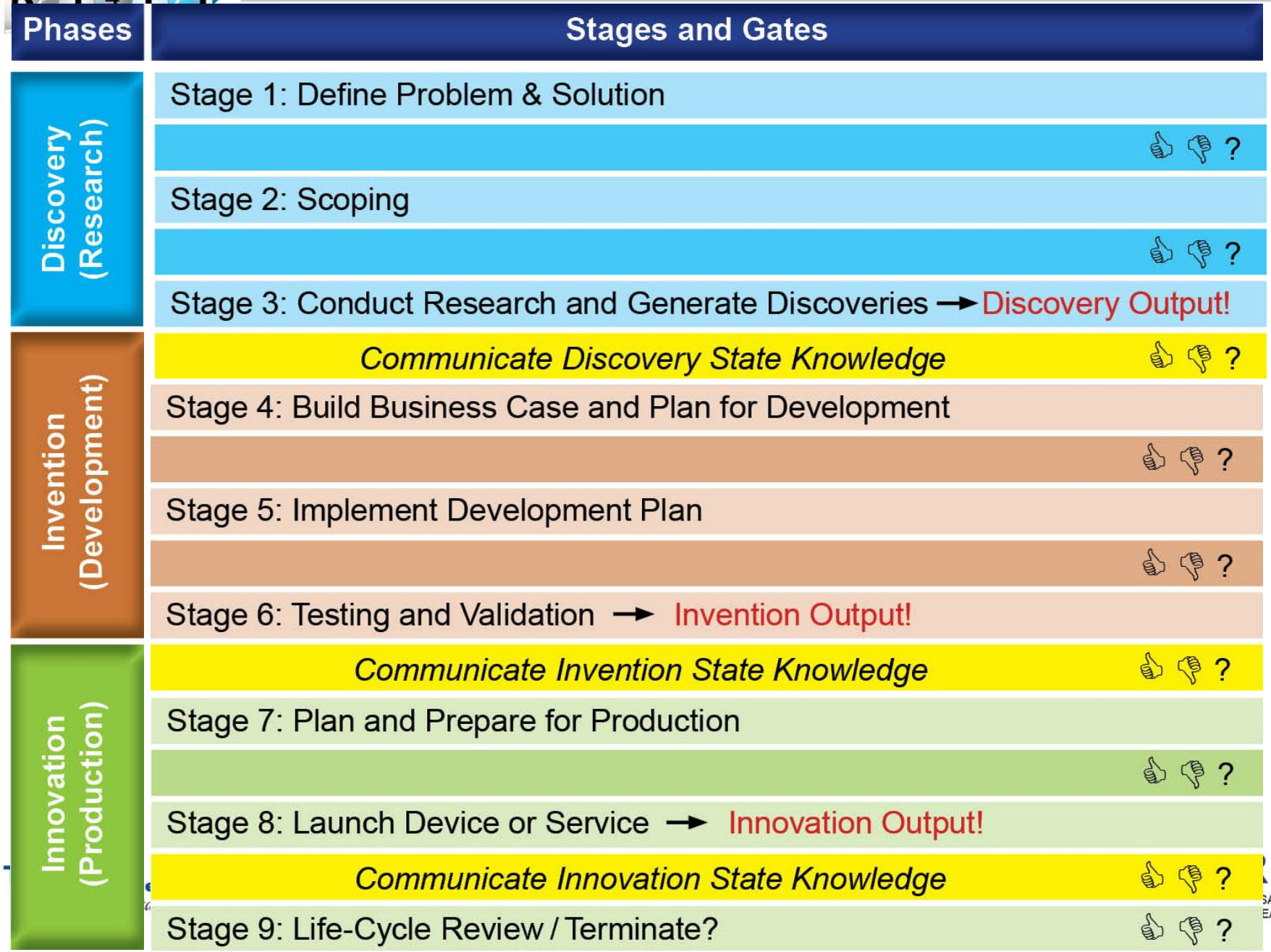
Need to Knowledge (NtK) Model for Technological Innovations



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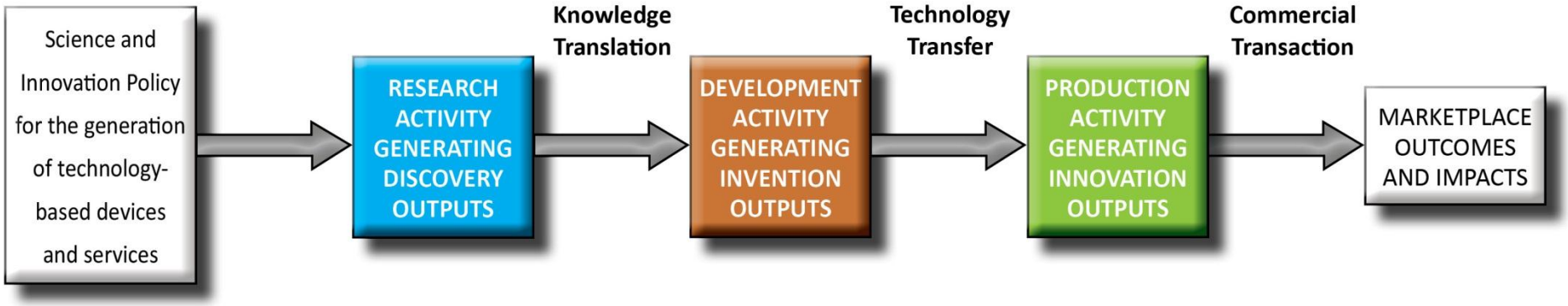
Knowledge Communication – 3 Strategies for 3 States



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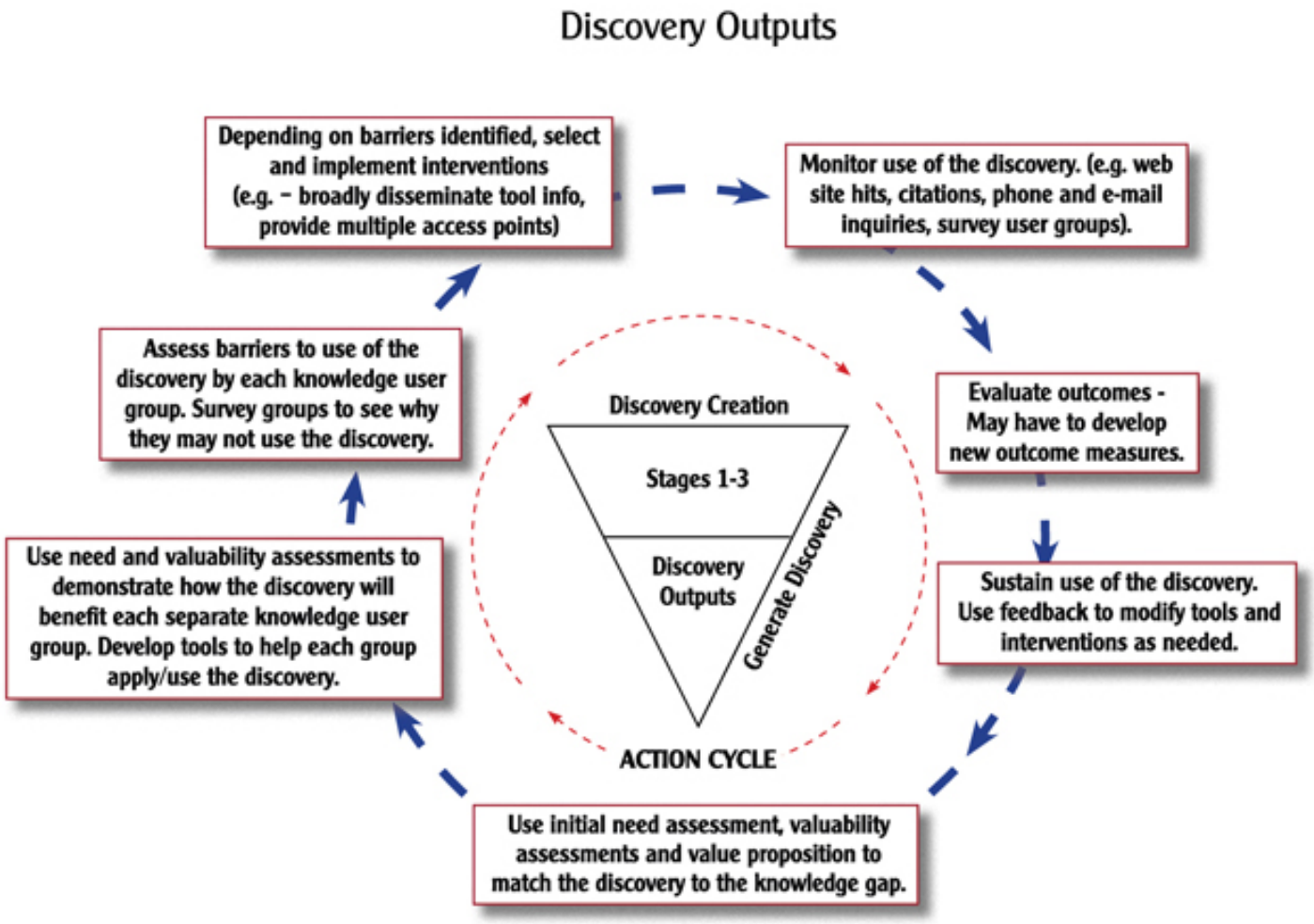
KT for Discovery Outputs



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Opportunities for KT

- 1.1 Assess needs with input from stakeholders.
- 2.2 Perform preliminary valuability assessments with input from stakeholders.
- 3.1 Identify expertise needs and assemble transdisciplinary research team.
- 4.6 Initiate key co-development practices.
- 6.3 Test refined beta prototype with consumers in field.

Practical Tool
TT Planning Template

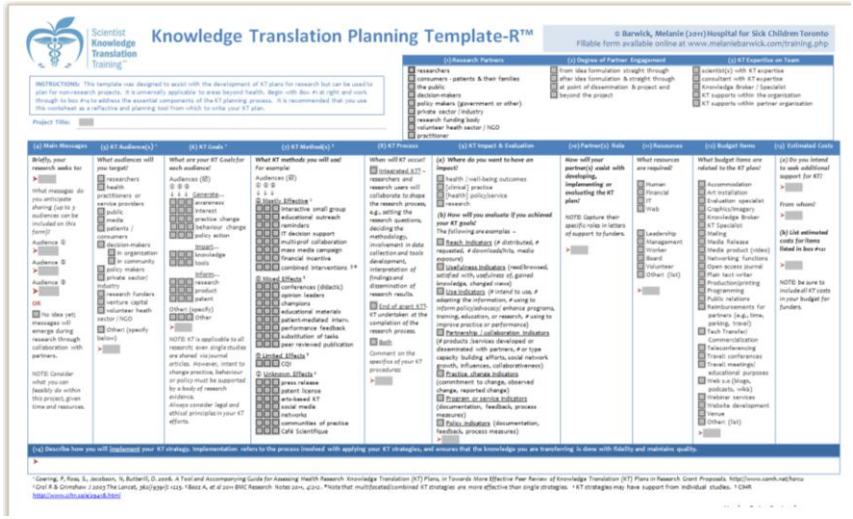
http://kt4tt.buffalo.edu/knowledgebase

Stages and Gates	Steps	Plans/Progress
Stage 1: Define Problem and Solution	1.1. Opportunity for KT: Assess needs for device or service with input from relevant stakeholders from the six knowledge user (KU) groups. 1.2. Identify a problem (need). Identify audience for solution. Identify context for both. 1.3. Propose plausible solution (goal) to problem in the form of a device or service. 1.4. Determine scope of project (role); output as conceptual discovery, prototype invention or device/service innovation? 1.5. Consider path to market.	.
Gate 1: Idea Screen. PI decides to either terminate or move forward with project to develop solution to problem.		
Stage 2: Scoping (Initial screen to validate innovativeness and value to target markets)	2.1. Define innovation opportunity.	
	2.2. Opportunity for KT: expanding on previously identified needs, perform preliminary valuability assessments (business, market and technical) on device/ service with input from stakeholders in the six KU groups. 2.3. Identify potential barriers.	
Gate 2: Second Screen. PI must decide if envisioned project output and eventual device/service outcomes are still considered innovative in the light of results from assessments. PI decides if generation of new knowledge is required. If no, PI decides if project should move directly to invention phase or terminate. If yes, should they pursue external funding to conduct remainder of discovery phase?		
Stage 3: Conduct Research and Generate Research-Based Findings (Create/find relevant knowledge)	3.1. Opportunity for KT: Identify expertise needs and assemble transdisciplinary research team (I.e. methodologist, statistician, etc.) 3.2. Identify specific knowledge gaps- purpose of research phase. 3.3. Select appropriate research design and develop	

Practical Tool
KT Planning Template

Available at: http://www.melaniebarwick.com/training.php

- Consider:
  - Research partners
  - Level of partner engagement
  - KT expertise on team
  - Messages
  - Audiences
  - KT goals
  - KT methods & processes
  - Intended impact & evaluation
  - Role of partners
  - Resources & budget → Estimated costs
  - Implementation Plan



Resources

- NCDDR KT Library
  - http://www.ncddr.org/ktinfocenter/

- KT Training Programs
  - Scientist KT Training
  - Knowledge Translation Professional Certificate

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Key Take Aways

- Involve Knowledge Users:
  - Identifying research topics, questions and hypotheses
  - Designing and implementing study methods
- Pay attention to context
- Tailor dissemination strategies
  - Critical information, formats and channels
- Use planning tools

Questions

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