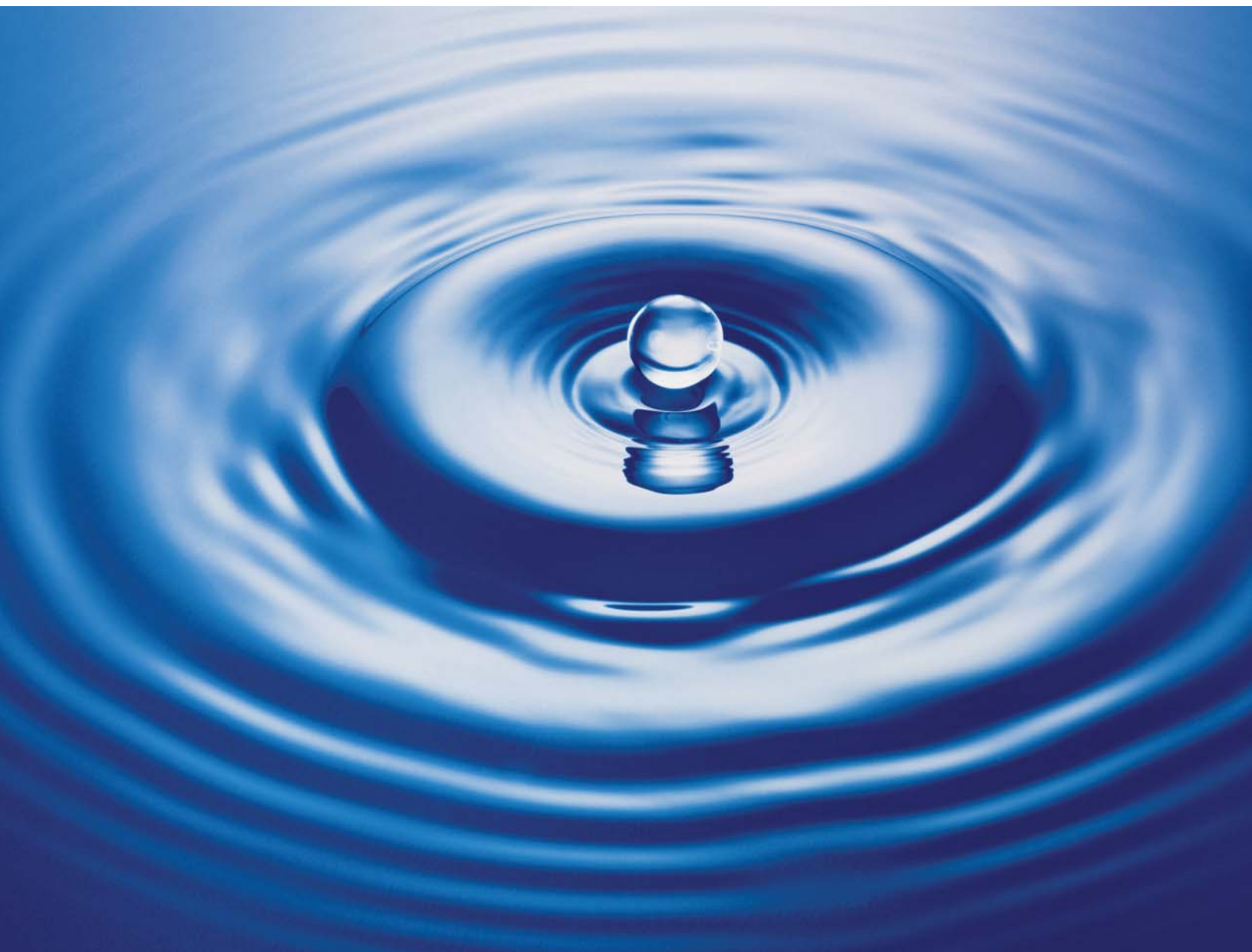


Knowledge Translation Planning Tools for CWN Researchers



CANADIAN WATER NETWORK
RÉSEAU CANADIEN DE L'EAU



Canadian Stroke Network
Réseau Canadien contre
Les accidents cérébrovasculaires



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Knowledge Translation Planning Tools for CWN Researchers

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We welcome your feedback. Please contact:

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We hope you find this planning tool helpful. It is our first CWN edition – and it is our hope that it will not be the last. We envision this document as organic; it will grow and evolve with your feedback and insight. Future editions will reflect this new understanding and input.

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INTRODUCTION

Knowledge translation (KT) is the term used the Canadian Water Network (and by the Canadian Institutes of Health Research (CIHR)) to describe the process of getting research findings and products into the hands of key audiences. KT is about using research to inspire people to think and/or act differently. While there are a variety of terms used in the literature to refer to this process (e.g., knowledge transfer, exchange, uptake and mobilization, utilization and diffusion), the KT process is achieved through transmission and exchange of information and through extensive dialogue between the producers and users of the research. KT involves careful consideration of the experiences and information needs of stakeholders to enhance the creation of new theory, improve the overall quality of research, and facilitate the application of research to practice and policy.

In order to share their research findings, researchers usually publish in scientific journals and make presentations at conferences. Although these KT activities may be useful for certain audiences or purposes, they represent only one way of sharing research results. These activities need to be combined with other KT approaches to bridge the gap between researchers and users. In other words, it is necessary to develop an appropriate KT strategy to maximize the value of the research.

This document, Knowledge Translation Planning Tools for CWN Researchers, provides a comprehensive overview of factors to consider in developing a KT strategy. Effective KT is a continuous process which starts during the development of the research project. With this process in mind, the tools in this document are designed for use from the beginning of your research project throughout its duration to help create and implement a comprehensive KT strategy. Project team members should consider the items mentioned in the KT tool in developing a plan for achieving the research project objectives. The tools are based on the following six questions to help you and your research team enhance the knowledge transfer potential of your research:

What are the most important aspects to consider when establishing a KT strategy?

What are the outputs of your research (e.g. findings, concepts, methodologies, tools)?

Who are the potential users of your research outputs?

What is the most effective way to make contact and interact with those users (e.g., how to bring knowledge to the decision-makers)?

How can potential users be involved in meaningful ways throughout the research project?

What do users need to know about your research in order to understand it and assess its value for potential uptake?

How Were the KT Tools Developed?

The CWN KT Tools are adapted from the tools developed for another NCE, the Canadian Stroke Network. Researchers at the Chair on Knowledge Translation and Innovation at Laval University and the Atlantic Health Promotion Research Centre (AHPRC) at Dalhousie University dedicated two years to identifying factors that contribute to an effective KT strategy. After these factors were identified, information from 98 innovative tools on KT was then synthesized in order to isolate the critical elements. CWN has taken the work done by these researchers and developed the critical elements into a KT Toolkit applicable to CWN research and KT.

These elements were used to develop the tools. Each question posed in the tools is supported either by credible internet sources or by factors identified in the literature to improve KT. Factors found to be associated with a successful KT strategy include:

- the effort users put into acquiring knowledge
- the degree that research results fit the situation of the user
- the extent that research results are disseminated among research users
- the linkage between researchers and users of research
- the quality and type of research
- publication assets

How to Use the KT Tool

This document were designed to help maximize the effectiveness of your KT strategy. There are no right or wrong answers. The tool has three main sections:



Knowledge generation is defined as the development of the research or research syntheses; knowledge transfer is defined as the communication of research outputs to potential users; and knowledge uptake is defined as the uptake and use of the research by potential users. Under these sections there are theme areas (e.g. assessing the outputs of your research) with checklists designed to help you identify areas for planning and improving your KT strategy. The checklist has the following format: first, the item to consider is identified; second, three categories have been provided to help you evaluate your progress in achieving the item (Done, To be done, NA (not applicable)); and at the end, there is a space for creating a “To-do” list (see below).

Item to Consider	Done	To be done	NA	To do list
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

If you have already addressed a particular item, check the “Done” box. If you can improve your efforts, check the “To be done” box and make notes in the “To-do” list box for steps towards improvement. Because each research study or program is unique, some items will not apply to your research team. If an item does not apply to your team, check the “NA” box. After completing the tool, review each item on the checklist and summarize the items you identified in your to do list. You can use this list to create a work plan for your KT strategy, which should include proposed actions, research team roles/responsibilities and an associated time line.

References

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SECTION 1 KNOWLEDGE GENERATION

1.1 Including KT in the Early Stages of Your Research

This section will help you identify information you could gather from different stakeholders (potential users) potentially interested in your research outcomes/outputs. This information should be considered at the beginning of the research project (i.e. before or during the preparation of your funding proposal).

In developing your research project you should consider:	Done	To be done	NA	To do list
Using ideas and information from other researchers in public and private research institutions including universities, and government laboratories etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Using ideas and information from generalists and specialists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Using ideas and information from water managers, industry, non government organizations, and community groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Using ideas and information from policy-makers and regulators involved in decision-making related to public health, infrastructure and watershed management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Developing a strategy to ensure training for students and other personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Using ideas and information from business magazines, patent databases, industry newsletters, industry associations, and technology transfer organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Using ideas and information from business, venture capital, and intellectual property specialists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Identifying how the research outputs will benefit the problem/issue to be addressed in your project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Issues regarding intellectual property protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2 Assessing the Outputs from your Research

This section will help you identify the outputs from your research project

Consider project problem/issue addressed and project outputs:				
List the key elements of the problem/issue your project addresses				
List potential outputs generated by your research project (e.g., concepts, theoretical frameworks, methods, findings, technologies, syntheses, remediation)				
Describe the groups you will want to share your outputs with				
Consider whether you anticipate that your project will add to the advancement of knowledge by:	Done	To be done	NA	To do list
Validating or contradicting previous knowledge in the field				
Shedding light on fundamental understandings				
Providing solutions to specific problems/issues				

1.3 Building KT Capacity Among Your Research Team Members

This section helps you identify how each research team member can play a role in maximizing KT and the applicability of the research outputs.

To maximize the KT potential of your re- search outputs you should:	Done	To be done	NA	To do list
Define team members' roles, tasks and com- mitments that facilitate the application of the research outputs to the problem/issue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure that team members share a common vision about how the research outputs can be applied to the problem/issue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Identify one or more team members who will be in charge of establishing contacts with organizations and other relevant agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Identify people who will be in charge of form- ing connections with individuals in business, venture capital and intellectual property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Establish an advisory group to consider the diverse viewpoints of each one of the pro- ject's stakeholders as appropriate (e.g., wa- ter managers, government agencies, non- government organizations, funding agencies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

1.4 Evaluating Project Fit with CWN Research Objectives

This section highlights areas which might be important to your funding agency.

When conducting your research project, you should consider the importance of:	Done	To be done	NA	To do list
Publishing your findings in relevant scientific journals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Publishing your discoveries in professional publications (e.g.,)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Forming collaborations with research teams in other disciplines relevant to CWN research goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Forming collaborations with researchers outside the region to enhance the quality and use of the research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Developing and protecting intellectual property resulting from the research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Developing new products, processes and services resulting in socio-economic benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Developing a strategic alliance with a company or participating in the launch of a start-up company to commercialize your discoveries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improving or developing practices in the field of water management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contributing to management and policy decisions in the field of water management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

SECTION 2 KNOWLEDGE TRANSFER

2.1 Sharing Research Outputs

This section highlights activities to maximize the use of your findings.

To effectively disseminate your research outputs you should:	Done	To be done	NA	To do list
Share findings with other researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Share findings with students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Share findings with water decision-makers and government policy-makers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Share findings with CWN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Share your outputs with specialists in business, venture capital, and intellectual property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Share findings with highly qualified people and organizations outside the scholarly community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Facilitate the exchange of expertise between members of your team and organizations outside the scholarly community (e.g., staff exchange, equipment transfer)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Work as a consultant or advisor for private firms, government agencies or other organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

2.3 Keeping in Touch with Users

This section helps you develop a strategy for effective communication between your research team and potential users of your research outputs.

To keep in touch with users you should:	Done	To be done	NA	To do list
Develop a strategic plan to build and maintain direct relationships with intended users throughout the project. This may include the use of conferences, meetings, informal contacts, electronic mail, regular mail, and phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have periodic briefings and produce progress reports during the course of the research to generate interest in the research findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have person-to-person contact with potential users to ensure that the research outputs are clearly related to the users' needs (remember to budget for this.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Develop clear-language tools for users based on their needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Identify leaders inside a user's organization who can initiate change, and actively involve these people in the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

2.4 Developing a Dissemination Strategy

This section highlights important points for you to consider when developing a dissemination strategy. These items should be considered early in the project, although the final strategy may not be finalized until the outputs are known.

In developing an explicit dissemination strategy you should:	Done	To be done	NA	To do list
Establish clear and measurable dissemination goals with intended users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Identify media and others who can best deliver research results to potential users (e.g. opinion leaders, <u>NGO's</u> , television reporters, newspaper columnists, websites, radio announcers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Promote the availability of research findings by developing products for the target audience such as brochures, briefing notes, websites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Verify that the release of research findings takes into account where and how the user will apply your research findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

2.5 Connecting Research Outputs with Potential Users of the Research

This section helps you tailor your research outputs to the users' abilities.

In adapting research results for dissemination you should:	Done	To be done	NA	To do list
Customize the research results to targeted user groups (e.g., journalists, general public, other researchers, regulators, water managers, decision-makers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Summarize research findings in lay language (e.g., an executive summary, relatively brief text, and appendices documenting detailed methods, data, and analysis)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Emphasize key messages and recommendations so that users know how to take concrete action	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include "real world" examples: use storytelling or conduct demonstrations on how to use the research outcomes (bring the findings to life!)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Develop reports and products appealing to specific target audiences (e.g., use illustrations, color, humour, and packaging)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ask for feedback from potential users before providing the final reports to the CWN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provide technical assistance to make it easier to understand the implications of using the research findings (e.g., information help-lines)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes:

3.4 Protection of Intellectual Property

These elements need to be considered after the research is completed when you have products to share.

You should consider whether you need to protect your research outputs by:	Done	To be done	NA	To do list
Developing non-disclosure or confidentiality agreements (e.g., between a university lab and a firm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Protecting trade secrets (information that is secret or not generally known in the industry and that gives its owner an advantage over competitors, e.g., identities and preferences, vendors, product pricing, and marketing strategies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Preparing patent applications (a contract between the government and the inventor of a technology that is new, useful and not obvious)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If you become involved in patenting activities, you will need to:	Done	To be done		To do list
Conduct a preliminary search in the Canadian Patents Database on the Internet, at the Patent office, with TechSource, and/or at the public library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Assess the patentability of your invention in terms of novelty, utility and ingenuity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seek help from an intellectual property expert or a patenting agent to help you through the patenting process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fill out a patent application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
After patenting, you will need to:	Done	To be done		To do list
Sign a licensing agreement (granting one or more companies the right to manufacture and sell your invention in exchange for royalties)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sell the patent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Launch a start-up firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.7 Assessing Commercialization Funding Opportunities

This section helps you identify what venture capital funding agencies are looking for. It also helps identify what criteria will be used in judging your project.

When looking for venture capital funding you should:	Done	To be done	NA	To do list
Explore and assess sources of funding such as venture capital, conventional sources, angel investors, family, and government sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Browse venture-fund websites to obtain a list of funds investing the amount you need for your type of product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ask your advisors and contacts for suggestions about which venture funds are actively investing and likely to be interested in your type of product	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Focus your efforts on identifying and approaching three or four venture funds whose investment criteria most closely match your investment proposition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Draw up a business plan, before approaching potential investors, that is well researched, well presented, and meets fund requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Get feedback from the venture capital funders if your request for funding is denied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Make sure your business case is based on:	Done	To be done	NA	To do list
A sufficiently developed product or process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
An excellent management team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
An excellent business plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A wide-ranging and/or in-progress product line (portfolio)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A completed or in-progress product development phase (proof of concept)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Robust intellectual property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



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