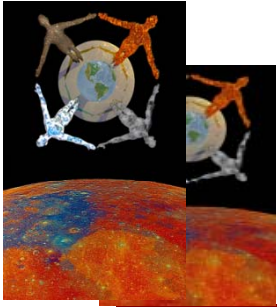


Key Foresight Issues: for Canada-Continental & Global Safety & Security

- *Jack Smith, TFCI Canada Inc.*
- *and Telfer School of Management*

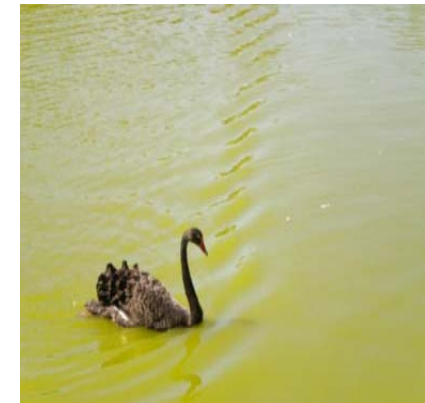


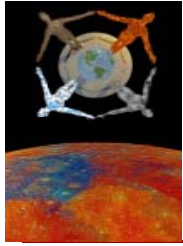


Foresight – Challenge

We are trying to plan for:

- **Technologies** that have not been invented
- **Jobs** that don't exist yet
- **Problems** that we can't anticipate yet
- **Applications** that we have yet to imagine
- **Risks** that we can't quantify yet
- **Viable systems** that haven't been designed yet
- **and Creative and Systems type thinking**, that most people are not used to doing

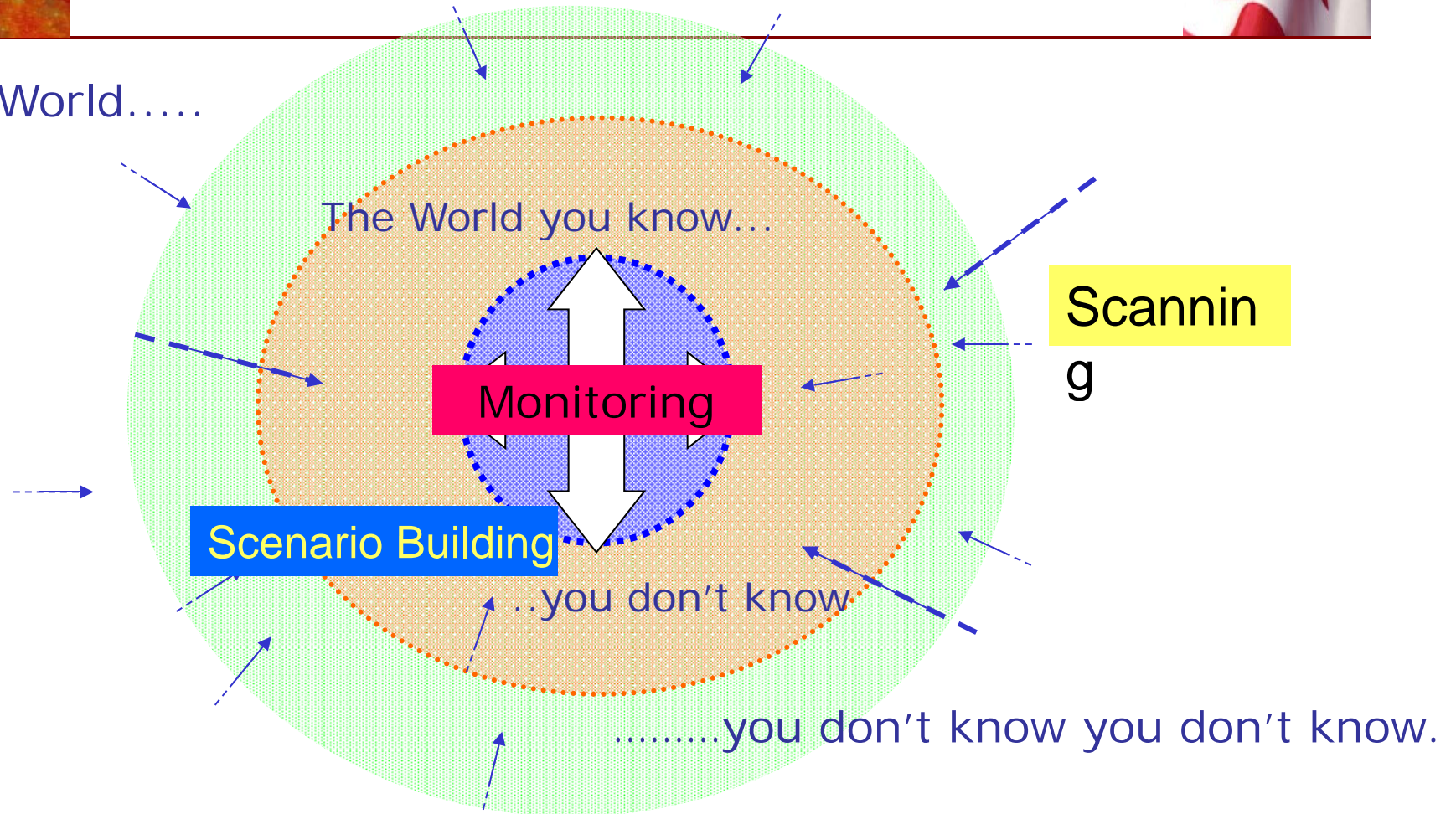




Outside-In Rather than Inside-Out



The World.....



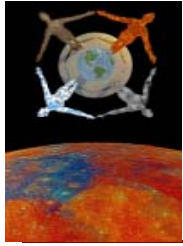
Scanning
g

Monitoring

Scenario Building

..you don't know

.....you don't know you don't know.

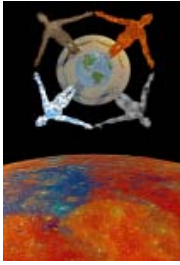


Foresight Success Factors



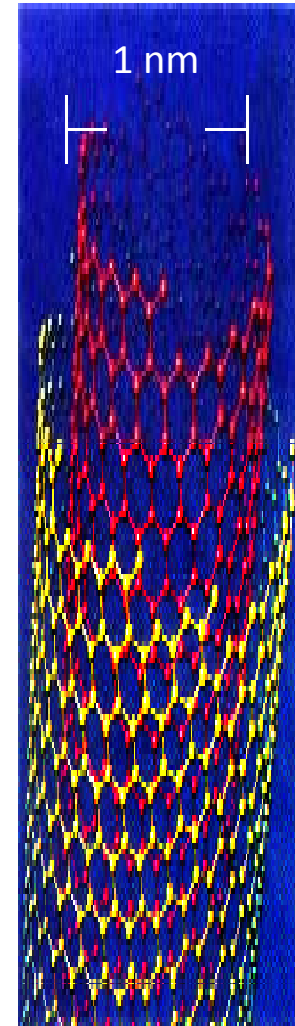
- **Focus on a clearly identified client**
- **Clear link between foresight and today's mid term policy agenda (3-5 years)**
- **Direct links to senior policy makers**
- **Clear communication strategy**
- **Integration of stakeholders in programs**
- **Provides methodologies-skills that are not always or normally used in other departments**
- **Academic receptor- to train and develop skills**

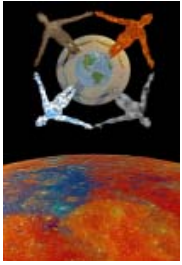




Foresight Helps Policymakers

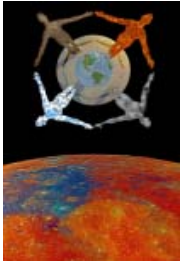
- Reveals issues, challenges-threats, stakeholders, alignments;
- Can anticipate impacts of new, disruptive technologies;
- Identifies needs for new skills, knowledge and capabilities;
- Explores weak signals that can become pivotal in the future; and potentially disruptive surprises, technologies;
- Demonstrates current regulatory weaknesses – zones where failure to prepare can bring severe consequences;
- Can be used to determine S&T, R&D priorities, strategic technology investment domains and critical sectors;
- Delivers intelligence on emerging business and market opportunities;
- Provides alerts about organizational vulnerabilities – allowing time to adapt





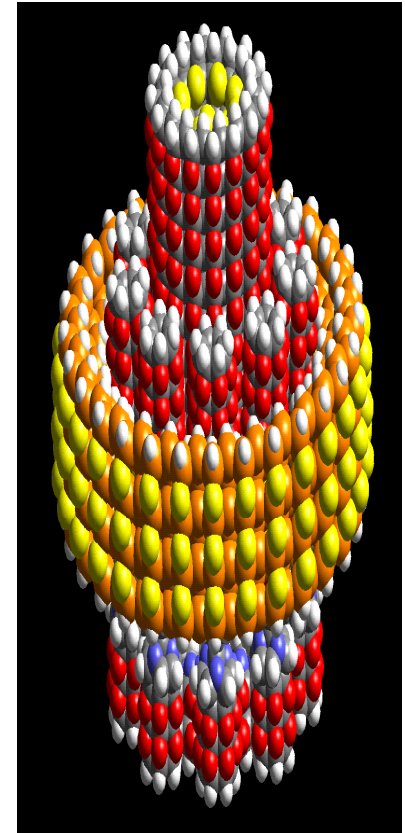
Sources of Disruption

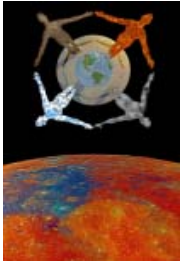
- **Mind Set:** Institutional *Linearity-Rigidity* in assumptions, structures and preparedness strategies; (Maginot Line, Blitzkreig; Vietnam;)
- **New Models:** e.g. new societal capacities - digital education, *disaggregation of services; social networks*
- **Technology Shift:** Succession – Breakthrough, and *Transformative Technologies*; (Hiroshima; Singularity- quantum- nano-self assembly; synthetic biology, drones-robotics)
- **Arrogance-Comfort:** Self *Delusive* Narratives; (9-11; Global Finance 2008, Iran nuclear)
- **Power of Nature:** “*Gaia*” *planetary tectonics*-Evolutionary – naturally occurring - recurring earthquakes, tsunamis, volcanoes, typhoons, hurricanes etc.
- **Doomsday** “*Unthinkables*” - horrific; pervasive and complex; comprehensive and costly beyond our capabilities for restoration; (asteroid hit; gulf stream shift, rapid polar melt, nuclear winter, solar flare heat thrust, “ grey goo”)



Disruptive, Enabling S&T

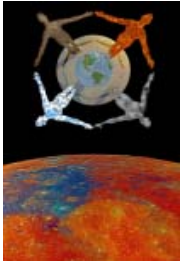
- Customized Materials: **auto design, modelling engineered**
- Quantum Computing : **models that reach beyond Moore`s**
- Singularity systems: **machine intelligence winning**
- Semantic Internet (**data rich & self navigable**)
- Cyber Agents - **sensors for networked intelligence**
- Autonomic Software :**self repair code generation**
- Stand Alone Power : **portable, sustainable energy systems for sensors, robotic weapons, intelligent agents**
- Nanorobotics, nano medicine, nano electronics and self assembled materials and devices – Smart Dust, **linked in colonies**
- Smart Organics:**that upgrade life forms intelligence**
- Visualization, Human-Machine Interfaces **linking brain and machine**





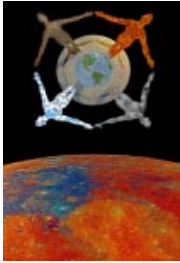
Selection Criteria for Methods:

- **Proof of concept – learning from other sites of application**
- **Available- accessible resources, cost (information-knowledge, time, money, facilities, skills)**
- **Level of participation desired**
- **Stakeholder expectations , designations etc.**
- **Urgency - time constraints**
- **Suitability for combination with other methods**
- **Prior experience and familiarity**
- **Objectives, desired outputs of Foresight exercises (mix of product and process orientation)**
- **Quantitative and Qualitative data requirements and availability of expertise, right of use etc.**
- **Methodological competence of practitioners**



What Foresight foccus

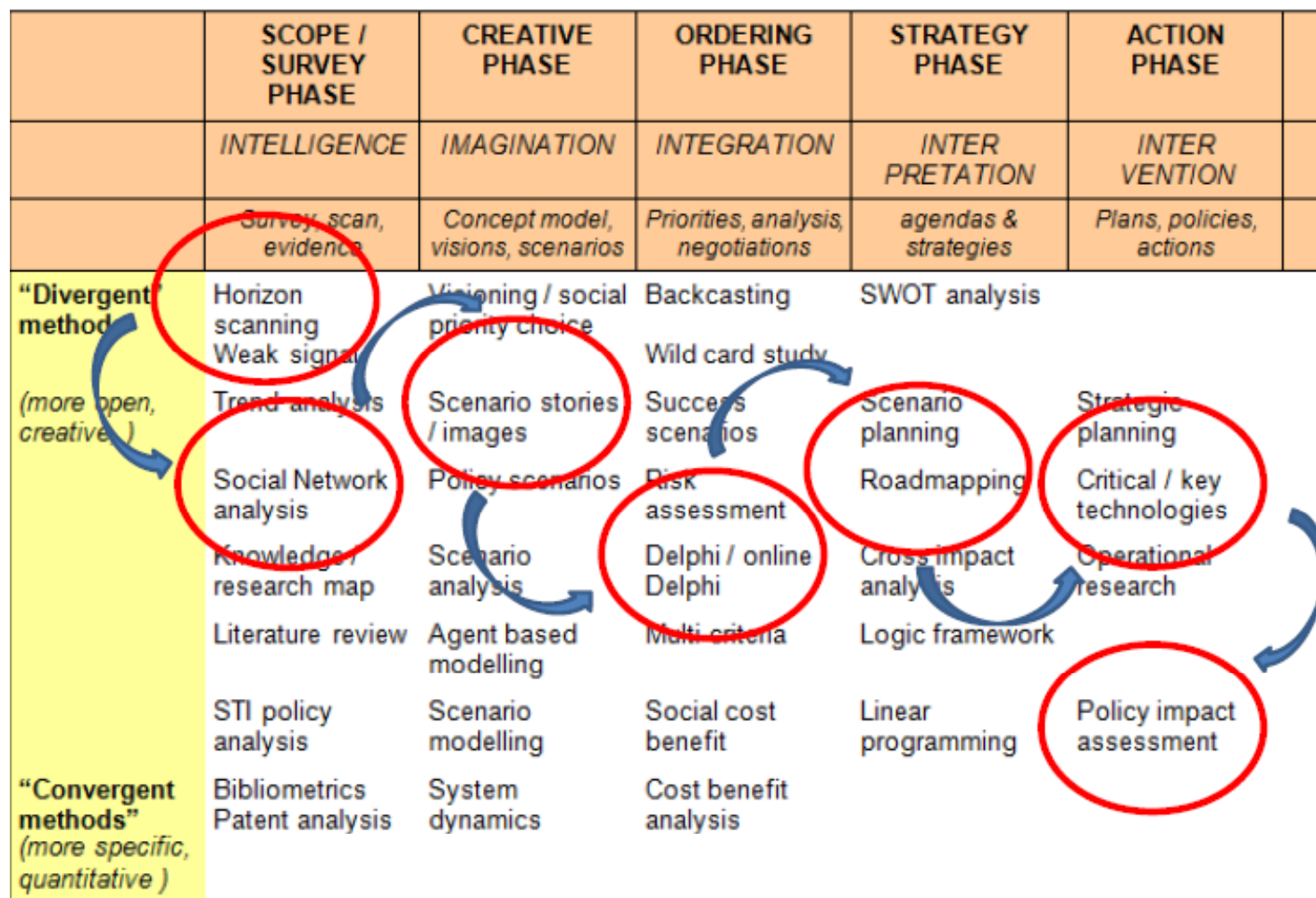
- **Research path** - where foresight is applied to determine next stage or longer term research priorities;
- **Technology path** – where foresight is applied to ascertain prospective shifts and new types of technologies and the implications related to their potential adoption;
- **Structural path** - where foresight is applied to envisioning how key structures – systems, organizations, funding procedures etc. could change and what implications might follow;
- **Policy path** – where foresight is applied to provide insights, multiple options and guidance to governance stakeholders, policy planners and decision makers;
- **Strategy path** - where foresight is used to develop strategies for individuals and organizations to be agile, adaptive, anticipatory and effective in terms of preparedness, readiness and capacity for action to avoid surprise and be positioned for coping or prospering from change;
- **Business / Market path** – where foresight is applied to anticipate potential shifts and changes in business conditions, market constraints and opportunities, including weak signals about new, emergent and prospective future markets;
- **Vision path** – where foresight is applied to create, validate or change the future vision guiding a set of stakeholders, clients and participants;



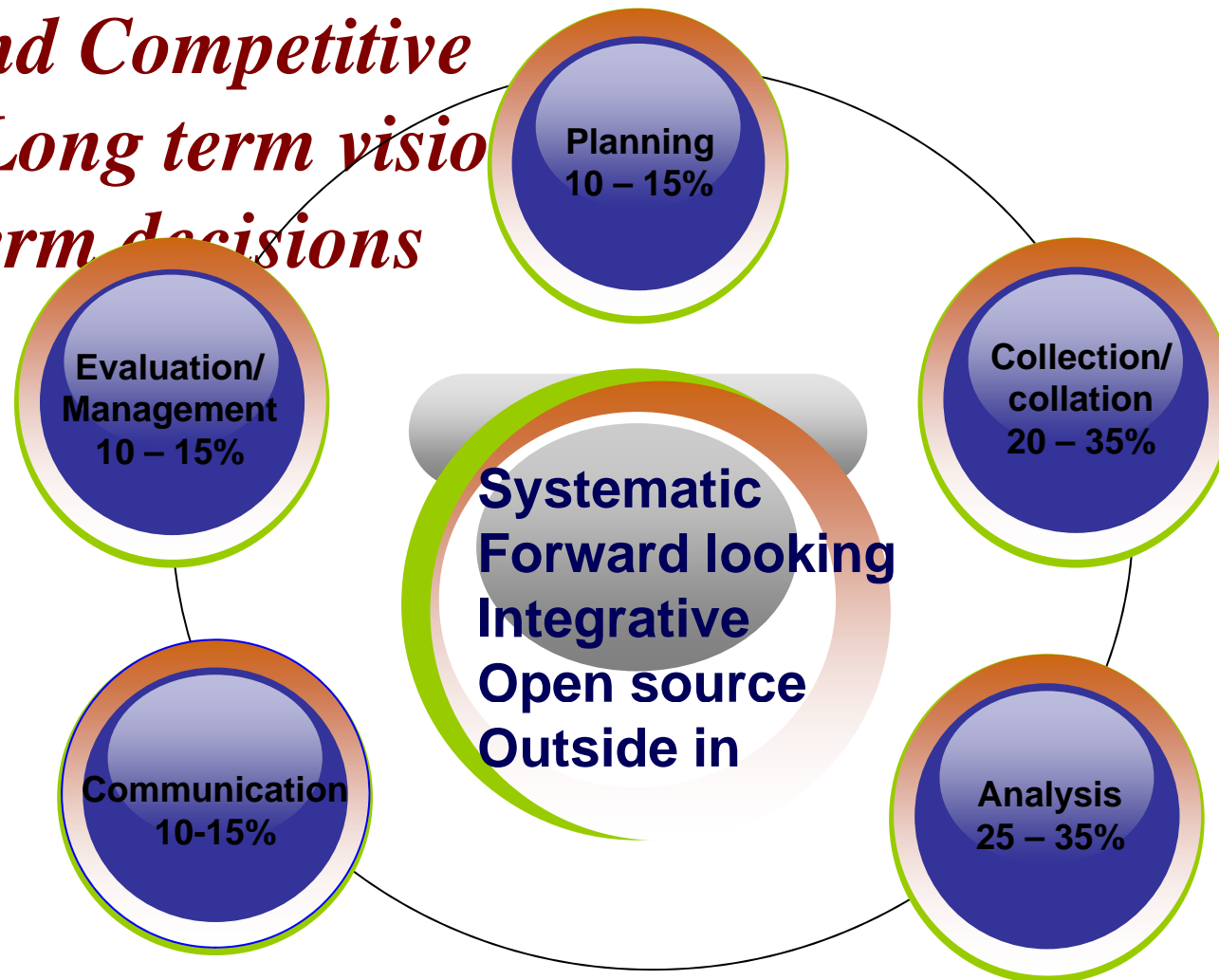
Systemic i5 model

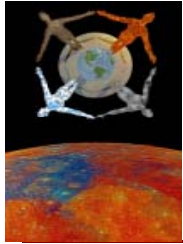
Phases	Intelligence	Imagination	Integration	Interpretation	Intervention
Functions	<i>Scoping / surveying phase</i>	<i>Creative phase</i>	<i>Ordering phase</i>	<i>Strategy phase</i>	<i>Action phase</i>
Activities	<i>Survey, scan, evidence</i>	<i>Concept model, visions, scenarios</i>	<i>Priorities, analysis, negotiations</i>	<i>Agendas, strategies</i>	<i>Plans, policies, actions</i>
Divergent Methods (more open, creative)	Horizon scanning	Scenario stories / images	Backcasting	SWOT analysis	R&D planning
	Social Network Analysis	Gaming	Delphi	Strategic planning	Operational research
	Knowledge / research map	Visioning	Success scenarios	Roadmapping	Action planning
	Literature review	Agent –based modelling	Multi-criteria analysis	Cross-impact analysis	Policy impact assessment
	STI policy analysis	Scenario modelling	Risk assessment	Logic framework	Priority lists
	Bibliometric / patent analysis	System dynamics	Cost-benefit analysis	Linear programming	Critical / key technologies
Convergent methods (more specific, quantitative)					

Technology-Enterprise Foresight Creating Value Chain Pathways



*foresight and Competitive
elligence: Long term vision
for short term decisions*

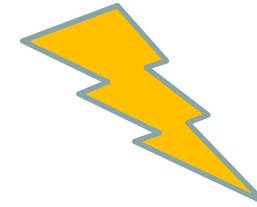
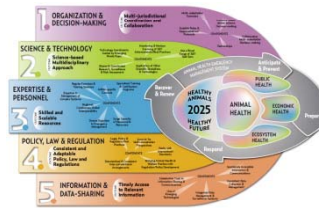
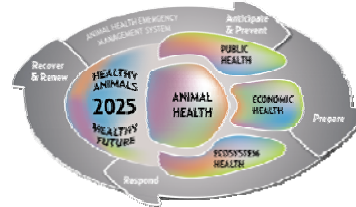




Project Overview



Project Activity



1. Foresight

2. Vision

**3. Model &
Roadmap**

**4. Knowledge
Transfer & *Impact***

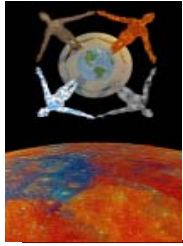


**Learning &
Community
Building**

**Integrated
Health Management
(One Health)**

Communications

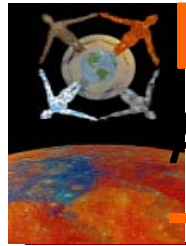
**Transition
to Implementation**



Purpose of the Impact Analysis

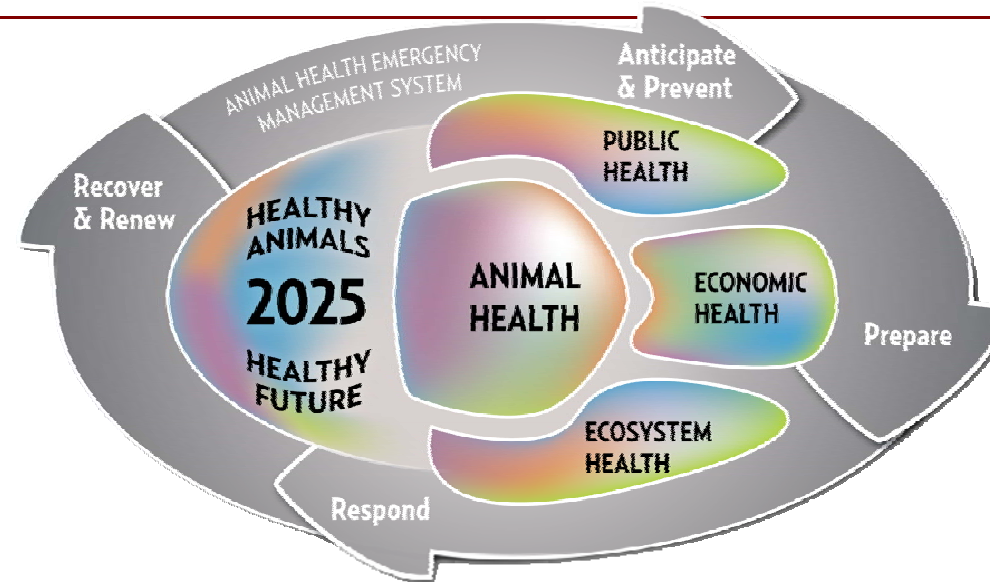


- Ascertain and calibrate impacts that have already occurred – while still vivid and recent;
- Communicate to project stakeholders and participants, both the importance-relevance of impact analysis, and to outline – remind them of the many dimensions of impact ; current and prospective;
- Compile evidence and contribute to positions that indicate benefits and underpin the case for continued work on the new model for AHEM;
- Implement a first test case of the viability and utility of new impact measurement instruments developed for and with international foresight leaders by Canadian foresight experts.
- Demonstrate how the impact feedback might be employed as a **tool to guide subsequent development**;
- Discuss how the impact results can support potential **avenues of engagement** following the formal end of the project.



Healthy Animals, Healthy Future

A Vision for the AHEM System of 2025



Fore-CAN's SHARED VISION for the AHEM System of 2025 and beyond

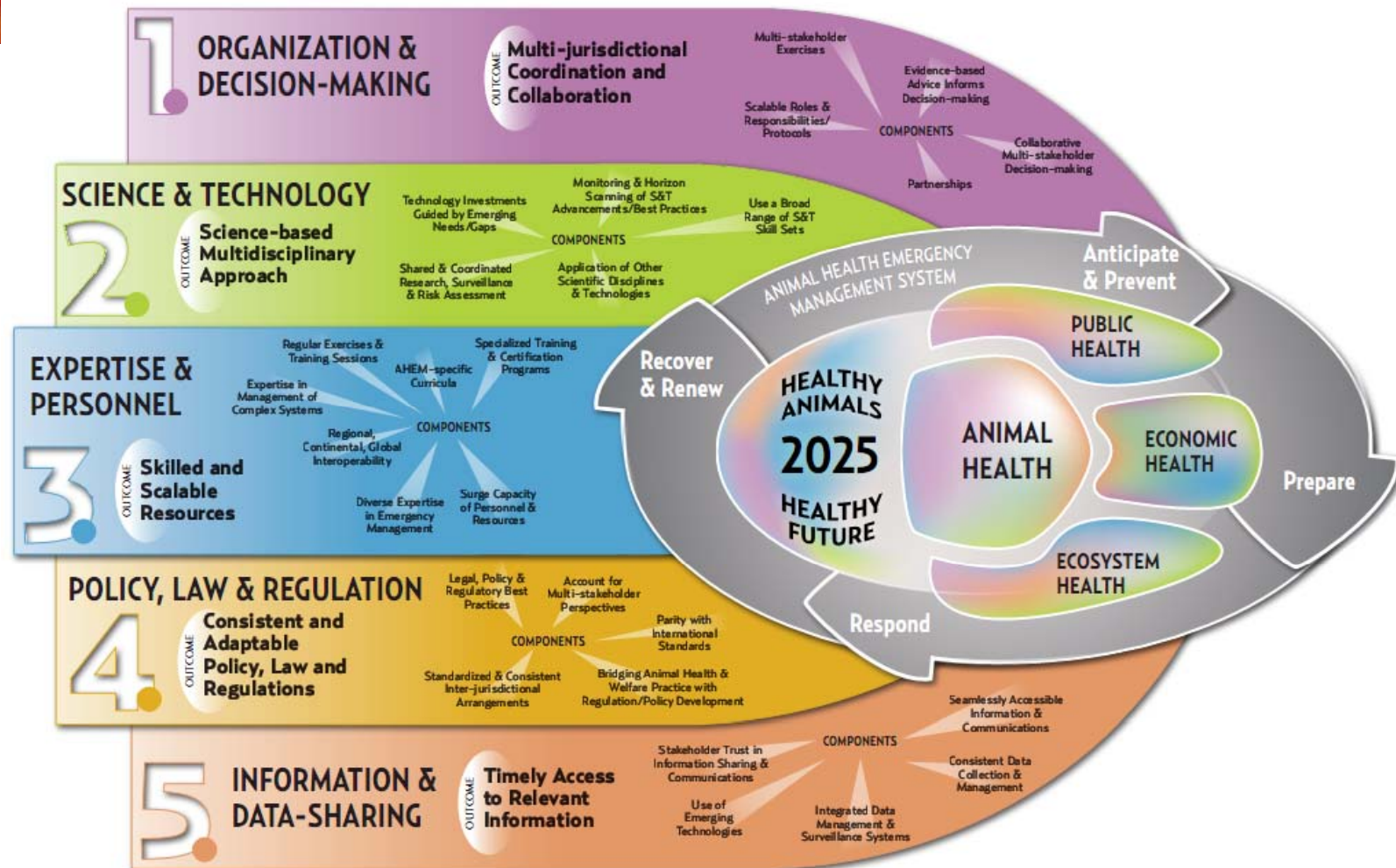
Animal health will be recognized as a key pillar in the preservation and promotion of Canada's health and economic prosperity.

In keeping with that perspective, Canada's animal health emergency management system will be anticipatory, adaptable and seamlessly integrated with human, economic and ecosystem health systems

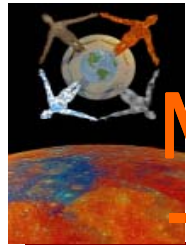


Healthy Animals, Healthy Future 2025

FOR CAN Capability-Based Strategic Framework (Draft Feb 4, 2011)



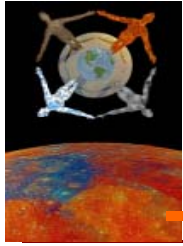
A Model for the Animal Health Emergency Management System of 2025 and Beyond



Methodology for the Impact Analysis



- TFCI described the international impact measurement development process and demonstrated the draft impact measurement instrument to the CFIA led Fore-Can team;
- The Project Leader first sent the long form to 54 potential participants – of whom 4 declined to participate and 4 responded- with many comments plus scoring;
- The short form was then sent to all and 10 more responses were received- mostly just with scoring of the 50+ variables;
- Based upon the short notice and lack of solicitation before emails were sent, it is positive that 14 responses in total were received out of 50 potential ones. With more advance preparation this rate – 28% could easily be doubled.
- TFCI then managed a dual analysis - combining the quantitative and the qualitative responses;
- The responses provide a good base for future more targeted assessments - e.g. of multiple ongoing domains from R&D to policy deployments related to the future aspects of or positioning for the domains examined.

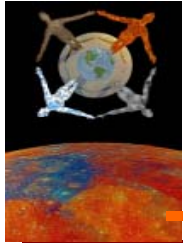


Six Types of Impact Results



1. Basic roles and key objectives
2. Benefits of process
3. Critical success factors
4. Enabling pre policy development
5. Supporting and shaping policy
6. Positioning for action-implementation





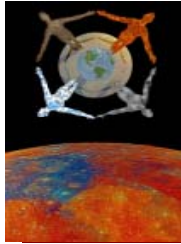
Summary of Impact Results



Overall, these preliminary impact results indicate that the project had both a significant impact on participants from a present time vantage point and a well-positioned potential for future impact as expressed by the clear and consistent trend in the results toward impact endorsement in most of the variables examined.

The conclusion to be drawn is not only that the project was quite successful in operational terms, but also that its full impact may only be known some years hence, given the strong prospects for future impact that were cited by most respondents.



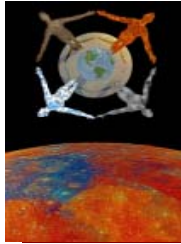


TFCI Canada Inc.
Technology Foresight Collaborative Insights Canada
27 Medhurst Drive, Ottawa Ontario, Canada K2G 4M1

Response Summary 1-5

Table 1. Foresight Impact Instrument Response Summary

<i>Element</i>	<i>Numbers, %</i>	<i>Observation - Comment</i>
1. # Participants solicited	54	<i>Selection made by Project leader based on degree of involvement-familiarity with the whole project</i>
2. # declined by email response	4	<i>Decline was typically based upon the recipient's self-assessment; i.e. not having been sufficiently involved to have appreciation for the wide range of impacts being examined – leading to a voluntary decline of the invitation.</i>
3. Total potential responses	50	<i>While not a large number for data purposes, trends can still be apparent and more comments are normally received than in larger surveys where the numbers are so high that interpersonal factors may not be so apparent .</i>
4. Responses received	14 = 28%	<i>For post project surveys this represents quite a high number relative to most evaluative type surveys.</i>
5. Responses with written comments included	10 = 20% Or 71% of responses	<i>This is also high compared to most surveys and shows the comparatively high level of commitment observed in the project participants</i>



Response Summary 6-10

Table 1. Foresight Impact Instrument Response Summary

Element	Numbers, %	Observation - Comment
6. # of total comments	116	<i>Although this relatively high number is weighted by 3-4 respondents, who filled in the long form, the mere fact that 10/14 respondents added comments (8.28 comments were received from the 14 respondents) is in itself very encouraging, and indicative of strong impact positioning- which most comments reinforce.</i>
# included in table 3	101 or 87%	
7. Total # of potential data points (14 x 54)	756	<i>This total demonstrates the complexity of the instrument – i.e. 54 prospective data points per respondent solicited</i>
8. Total data points filled in	708 = 93.65%	<i>Over 90 % - 93% is a strong affirmation of the value of the project and the willingness of those who chose to respond to take the time and make the detailed judgments required up to 54 times each. It also affirms the value of the short format instrument in terms of generating responses.</i>
9. # of no opinion data points	56 = 8.56%	<i>More no opinion responses were expected given the complexity of the project, so the low % may be indicative of good messaging to those involved, so they felt capable of more responses than most surveys within this structure,</i>
10. # of rated data points	656 = 91.44 %	<i>Again, the participants overwhelmingly engaged with few choosing the no opinion route</i>



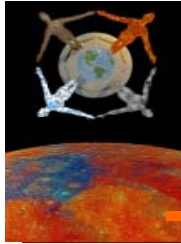
TFCI Canada Inc.
Technology Foresight Collaborative Insights Canada

27 Medhurst Drive, Ottawa Ontario, Canada K2G 4M1

Response Summary 11-15

Table 1. Foresight Impact Instrument Response Summary

Element	Numbers, %	Observation - Comment
11. # impact measures rated at average 4.00 or higher in data points	4/54 = 7.40 %	Although possibly one could interpret this number as small- actually it demonstrates just how selective respondents were – and so they clearly were able to differentiate those elements where impact is either already perceived as high or positioning for future impact prospects is very strong
12. # impact measures rated at average of 3.00-3.99	39/54 = 72.22%	This trend indicates this strong perception of impact or positive positioning for future impact held by the respondent group
13. # impact measures rated at average of 2.43-2.99	11/54 = 20.37%	Amazingly, only one of the 54 measures was averaged at less than the score median of 2.50, suggesting that either respondents believed there were positive impacts even where or if they were comparatively weak; or, the nature of the instrument is such that it encourages more positive than negative responses.
14. Mean Score on 54 Measures	3.32	This is quite high for a 1-5 instrument designed score spread
15. Average Score on 54 measures	3.34	In general, with an average score of 3.34, it is clear that this particular respondent group was highly supportive and inclined towards favorable longer



Impact Measures Results



Top Five Impacts

# 38 Develop Connections & Networks	12	2-5	52	4.33
# 1 Awareness raising	11	1-5	47	4.27
#12 Integrate stakeholders into foresight programs	(14) 13	2-5	56	4.25
# 10 Develop and employ methodologies and skills that are not always used in other departments	(14) 13	1-5	54	4.15
#31 Seeding opportunity and innovation - creating strategic directions	(13) 12	1-5	46.5	3.87

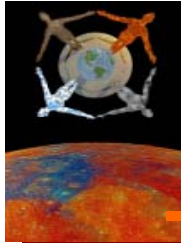
Lowest Five Impacts

# 15 Prioritizing resources	(13) 12	1-5	35	2.43
# 6 Focus on a clearly identified client	(14) 12	1-4	31	2.58
# 52 Media Attraction and Messaging	(12) 9	2-4	24.5	2.72
# 8 Nurture direct links to senior policy-makers	(14) 11	1-4	30	2.73
# 27 Training & Skills Development	13	1-4	36	2.77

Commentary

The lists of the top and bottom five impact elements provide a snapshot both of domains where there is strength or weakness but also reflect a high degree of alignment amongst the respondents. Also of note is that 2/5 of the highest and lowest impacts are from the critical success factors elements (questions # 6-13), and this suggests that the CSF list is a key differentiator of impact – as was intended by Calof and Smith when they undertook their study in 2007.



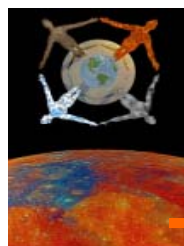


Impact Measures Results



Table 2. Summary of Fore-CAN Preliminary Impact Assessment Instrument

<i>Key Questions</i>	<i>Measures- Sub-Elements</i>				
1. Value of Fore-Can (General Comments)	Impact Measures	# Replies (with no opinions included)	Range	Total	Average Rating
2. Fore-Can Roles (Rate each 1-5 or 0 no opinion) Avg: 3.52	1. Awareness raising	11	1-5	47	4.27
	2. Informing	11	1-5	41	3.60
	3. Enabling	(11) 10	1-4	33	3.30
	4. Influencing	11	1-5	36	3.27
	5. Evaluating	11	1-4	35	3.18

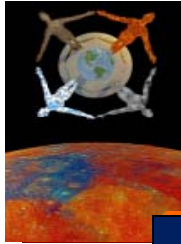


Impact Measures Results



Table 2. Summary of Fore-CAN Preliminary Impact Assessment Instrument

Key Questions	Measures- Sub-Elements				
Critical Success Factors (Rate each 1-5 or 0 no opinion) Avg : 3.43	1. Focus on a clearly identified client	(14) 12	1-4	31	2.58
	2. Establish a clear link between foresight and today's policy agenda	(14) 12	1-5	35	2.92
	3. Nurture direct links to senior policy-makers	(14) 11	1-4	30	2.73
	4. Create strong public-private partnerships	14	2-5	46	3.28
	5. Develop and employ methodologies and skills that are not always used in other departments	(14) 13	1-5	54	4.15
	6. Ensure a clear communication strategy from the start.	14	2-5	53	3.78
	7. Integrate stakeholders into foresight programs	(14) 13	2-5	56	4.25
	8. Take advantage of or create a national-local academic receptor and training capacity.	(14) 9	2-5	34	3.78
Foresight Benefits (Rate each 1-5 or 0 no opinion) Avg: 3.24	9. Generating national strategy	14	2-5	48	3.43
	10. Prioritizing resources	(13) 12	1-5	35	2.43
	11. Changing existing institutions and building partnerships among actors	(14) 13	1-5	40	3.08
	12. Enhancing intelligence systems and stimulating the exchange of information	14	1-5	52	3.71
	13. Building early warning systems	(14) 13	2-5	43	3.31
	14. Communication and coordination	14	2-5	51	3.64
	15. Propelling societal learning processes	(14) 13	1-4	37	2.85
	16. Knowledge management	14	2-4	40	2.86
META MEASURES Avg:3.42	17. Stimulating innovative policy making	(13) 11	1-5	36	3.27
	18. Enhancing the environment for innovation	14	1-5	49.5	3.53
	19. Impacting on organizational strategy	(14) 12	1-5	42	3.50
	20. Impacting on new product – govt service development	(14) 12	1-5	39	3.25
	21. Learning & Education	13	1-5	44.5	3.42
	22. Training & Skills Development	13	1-4	36	2.77
	23. Creating Strategic Directions	13	2-5	47.5	3.65
	24. Managing Risk – Uncertainty	13	2-5	42	3.23
	25. Improving Design & Planning Agility	(13) 12	2-4	43	3.58
	26. Seeding opportunity and Creating Strategic Directions Innovation:	(13) 12	1-5	46.5	3.87



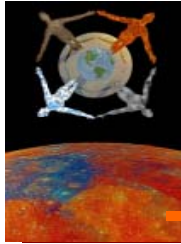
Impact Measures Results



Table 2. Summary of Fore-CAN Preliminary Impact Assessment Instrument

Key Questions	Measures- Sub-Elements				
Pre-Policy Measures (Rate each 1-5 or 0 no opinion) Avg:3.40	1. Research & Development Priorities	13	2-4	37	2.85
	2. New Insights & Knowledge	13	2-5	43	3.30
	3. Adding Creativity, Invention & Imagination	12	1-5	43	3.58
	4. Contribute to Policy Research, Options and Analysis	(11) 10	1-5	34	3.40
	5. Educate Leaders on Foresight - Policy Issues	12	1-5	37.5	3.12
	6. Affect Attitudes & Beliefs	12	2-5	39	3.25
	7. Develop Connections & Networks	12	2-5	52	4.33
Policy Support Measures (Rate each 1-5 or 0 no opinion) Avg:3.39	8. Stakeholder Engagement & Characterization	12	1-5	41	3.42
	9. Framing Policy Issues, Options & Decisions	(12) 11	1-5	37	3.36
	10. Validation & Legitimacy	(12) 11	2-5	37.5	3.41
	11. Advice for Policy Champions	(12) 11	2-4	36.5	3.32
	12. Change Factor Analysis	(12) 9	2-5	30.5	3.39
	13. Socio-Economic Threats & Opportunities	(12) 10	2-4.5	32.5	3.25
	14. Filter for Future Robustness	(12) 8	2-4	25.5	3.19
	15. Manage Complexity, Ambiguity & Horizontal Issues	12	2-5	46	3.83
Policy Implementation Measures (Rate each 1-5 or 0 no opinion) Avg:3.09	16. Communication Channels – Identification , Interface	(12) 11	1-5	34	3.09
	17. Public and Professional Perception and Appreciation	(13) 12	2-5	35	2.92
	18. Innovation, Integration and Implementation Dynamics	(13) 12	2-5	40	3.33
	19. Infrastructure Alignment , Resilience	(13) 11	1-4	32	2.91
	20. Organizational Development, Adaptation and Renewal	(13) 12	2-4	40.5	3.37
	21. Media Attraction and Messaging	(12) 9	2-4	24.5	2.72
	22. Appeal to Prospective Staff	(12) 9	3-4	28	3.11
	23. Lens for Evaluation, Assessment of other Tools	(12) 9	1-5	29.5	3.28
Overall Average Score for 54 Measures is:					3.34



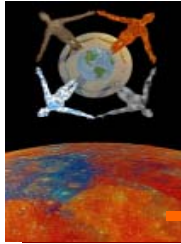


Impact Measures Results



1. Value of Fore-Can: (General Comments)

1. Fore-Can is valuable to me in that I was able to explore other approaches, learn what worked and did not.
2. With respect to the findings, I saw that the biggest impact was on participants but there is a bigger challenge with findings being interesting or taken up by senior management, unless they had an interest in foresight.
3. The results are interesting to the direct leaders and perhaps some key participants, but require interpretation and application to more peripheral areas. It would have been useful to have a bit of support for peripherals to be coached on how to think about this information and insights and how to apply it to their business lines.
4. Increasing my personal knowledge of foresight tools and systems thinking. Also of government becoming more familiar with the tools.
5. Strategic foresight is critical and important. However, it should be better integrated in the research needs.
6. As an observer and a representative from CSS (CRTD), I see the value of Fore-Can in bringing together experts from various disciplines who are working together towards collaborative, common goals.
7. I believe that many of the relationships developed through Fore-Can networks will lead to future opportunities and developments for Canada and internationally.
8. The process of the Fore-CAN project which brought all parties together for the various project activities and led to the scenarios, systems maps, and eventually the final report was hugely valuable in building trust between partners. Many in non-government roles struggled in the early stages but were able to be re-engaged near the end of the project when outcomes were more tangible. However, in the meantime, through the generosity of the Canadian Animal Health Coalition, I was able to continue to participate and to provide industry feedback and to try to influence others to re-engage.
9. The symposiums allowed for the work of the smaller group to be validated and re-calibrated. This was important in that a larger group was able to feel some ownership and to be engaged without needing to worry about the detail of getting there.
10. The collaborative work clarified some of the differences in timelines, language and mandates that were impeding us initially as we began the project. By necessity, non-government orgs work on much shorter future planning ... and in times of industry stress, may in fact be very short term in outlook. By contrast, provincial governments work on cycles related to agricultural policy statements and the federal government looks at much longer terms.
11. This has been a great 'eye-opener' for those of us who tend to work in isolation (within one small sector of one industry, in one province...etc). We've seen that we are not alone in our concern or confusion over how we will cope with future animal disease outbreaks. We now recognize that there is a will to work together to prepare for unthinkable events and the Fore-Can exercise has provided the stimulus for such future collaboration.
12. Fore-Can represented a change in thinking, a different approach to problem solving related to AHM and a proactive and futuristic vision, not only to AHM but to animal health management, public and environment health in general.
13. It was a very helpful learning process for understanding a bit better what influences federal policy folks.
14. The most valuable aspect of Fore-Can was to explore how to deal with fuzzy issues like planning for the future. Many useful techniques were explored. The Fore-Can assessment tool is a very useful template.
15. I believe that the Fore-CAN project created a lot of potential benefit to the animal industry, however, the true measure of success will be whether or not it makes a difference in the future. Much of that depends on what happens to the project's products from here forward.



Impact Measures Results



2. Roles for Fore-CAN

1. Increasing awareness of the health system...animal health – human health—environmental health.
2. Limited awareness increase in provincial government and industry. Unsure of federal impact
3. We started strong, with a broad range of players at the table. In the end, we were “preaching to the converted”.
4. Biggest informing was the need to anticipate and that you didn’t have to recover to the old way of being, you could use this opportunity of recover to rejuvenate or redefine.
5. Activities enabled spirit more so than policy directions...except re-enforcement of the general one of One Health.
6. Participants are most influenced. Senior management and peripherals understand need to look at bigger picture, collaborate with broader elements of the system.
7. I think there perhaps was an awareness that traditional evaluations don’t apply. This may be consistent with systems focus and tend not to use reductionist measures.
8. Big disconnect in general from foresight and action. Yes, we came up that you must think of org structure, governance, science and visually depicted the system, but we were poorer at saying what we could/should do about it
9. Industry leaders were kept aware through the symposia and communication pieces. The Fore-CAN staff were very amenable to making presentations as required throughout the project
10. The Fore-CAN staff, particularly Shane Renwick was very open to making presentations on progress to non-government boards which expressed an interest. While I have no idea of how many these were, I know that the Canadian Animal Health Coalition board and the Canadian Farmed Animal Health and Welfare Council both received presentations.
11. The project team provided any information I needed to bring effective messaging to our constituency.
12. The project team was also very open to feedback. This enabled, along with other project activities, for the outcomes to evolve and be a better product.
13. The project team influenced the Canadian Farmed Animal Health and Welfare Council to adopt the Fore-CAN Assessment Tool in the development of priority issues the Council is working on as a trial. The value will be evaluated and feedback provided.
14. Professional colleagues working together to identify and manage scientific outcomes and integrate them into the needs of policy makers.
15. Our new ADM has used Fore-CAN as a tool for the development of a workshop intended to explore relationships between scientist and policy makers for the purpose identifying and managing Emerging Infectious Diseases

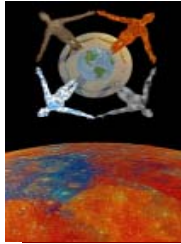
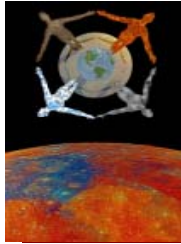


Table 3 . 101 Written Comments on Measures- Sub-Elements

3.Critical Success Factors

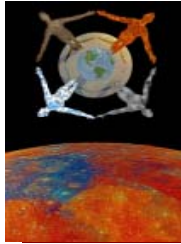
1. There are multiple clients and to be truly successful, so I disagree that a single client focus is a critical success factor. I think that we have learning and if we want that learning to be taken up we would be wise to identify the wider set of clients to influence which is really the leadership model in complexity.
2. If you have a clear client...then they can take action....however, what most foresight including thing one illustrates to me is that there are diverse set of clients that need the same learning influencing them in different ways.
3. At the high level, increased support and awareness for one health is critical for eventual success.
4. Regarding specific policy, not as good. Champion existed ... Martine and Brianhow it impacted others....awareness mostly;
5. Conceptually the project was strong for participants being diverse stakeholders - effectively created PPP that supports the concept but unclear on new real partnerships outside of conceptual.
6. Most methodologies were standard and comparable to others.
7. Good starting and continuing communications- plus lots of continued participation;
8. re factor 8 I am unclear with this....I know they are linking but I am unsure if they built academic receptors or trained them.
9. The client was a diverse group, so focus was difficult. While primary use was likely for federal policy, it was clear from the beginning that there was a desire to also include provincial governments and non-government as client groups.
10. The back-casting exercise which established the steps required to achieve the desired end destination was critical in linking events required ... and identify policy change that potentially would be required.
11. I don't believe that anyone involved was a true policy person and so, not sure that link was fully established.
12. The project team was responsible for linking to senior policy makers and so I really don't have an idea of how effective they were. The feedback provided to us as project experts indicated a reasonable level of interest and uptake through presentations and other contact methods.
13. There was a huge development in the relationship between the various participants in the process.
14. I am not sure I could say that strong public-private partnerships were built but the need for a new relationship that included a cross jurisdictional approach with involvement of fed/prov and non-government ... that relationship is still to be developed and cemented.
15. This new relationship is likely an evolution since it is also supported by the one health initiatives in government, the National Farmed Animal Health and Welfare Strategy and the work of the Canadian Animal Health Coalition.
16. Many of the techniques were totally new to me as a non-government person. It was challenging and thought provoking.
17. Every effort was made to engage as broad a range of stakeholders as possible at various levels and at various strategic points in the project. A number of media tools were used to achieve this
18. Connecting to academia is outside my knowledge except that I am aware that there was academic involvement. This may not have been communicated very clearly during the project or only communicated to a specific sector.
19. CFIA officially owned the project, but always assumed other players should take ownership as well. I'm not sure we did.
20. Perhaps federally, the project was able to nurture senior linkages - definitely not provincially.
21. The project reinforced those public-private partnerships already in place.
22. A real strength of the project was the new skills and methods explored.
23. In the end, it seemed to just be farmer groups, academics and gov't vets. Why did consumers, public health, emergency management folks fall away?
24. Vet schools at the table – time will tell if this has an impact.
25. Because of a very broad range of possible clients, sometimes focusing on a clear client was a challenge.
26. We demonstrated foresight-policy linkages through a workshop where the use of Fore-CAN techniques that facilitated the outline of a policy development workshop
27. I understand that nurturing senior links with policy leaders is progressing with support from senior management and policy-makers; however, I am not directly in this line of information.
28. Partnerships -PPP- is where I feel that Fore-CAN has offered opportunities far beyond expectations. These opportunities will further improve future discussions and developments in both research and policy.
29. New skills were enhanced via highly interactive membership with experts from various disciplines all working together!
30. Communications remains an opportunity, through various workshops, which ensured excellent communications between science partners and clients and policy makers.
31. Stakeholder integration has been achieved with great success.
32. My only concern is for sustainability of this group and their enthusiasm!
33. There is a great opportunity for future training- academic initiatives.





4. Benefits from Foresight

1. Awareness and unification of one health with ADMs and others...not sure about a national strategy...didn't see this but perhaps I missed something; I don't know about prioritizing but it did allocate resources to new areas...scanning, surveillance, anticipation
2. Again strong with participants...not sure about long standing partnerships outside of that category;
3. Good on awareness of need for these with all participants and maybe even senior management...I am unsure of real systems development
4. Good communications and beginning of coordination...at least even of what is going on already...this is a good step. I sometimes wonder if we are evaluating the right things...I can see many of these points being developed in future years...maybe awareness raising is good enough at this point. Demonstrated new model for engagement on vision, future, wide stakeholders
5. Good on concept (4)...not sure on real application (2)
6. Could be an unfair question...though it stimulated innovation in policy making...bad times may not enable the application
7. Yes, creates ambience for creativity, innovation, advancement
8. Conceptually yes, not sure CFIA or anyone has changed as a result...to be fair...we might be expecting this too soon.
9. Federal government will benefit from a national strategy... but benefits also will flow through ag-food policy to provinces and non-government.
10. However, there was an activism created during the project which will see provinces and some non-government sectors taking pieces which they will incorporate in their own planning separate from fed initiatives.
11. Fed and Prov governments are likely to use the foresight to prioritize resources... non-government will identify these trends in time as fed/prov becomes more clear
12. Partnerships and new organizations have not fully happened but certainly the seeds are planted .. culturing will be required to achieve.
13. While intelligence was identified and is a critical piece, I am not aware that there was any progress beyond that.
14. Re-innovative policy- some things required first but high importance in long term
15. I m not sure how well this - enhanced innovation potential actually happened. I think most things that were talked about were not really as revolutionary as perceived .. but more evolutionary.
16. The governance concept was more revolutionary.
17. A clear beneficiary is the National Farmed Animal Health and Welfare Council
18. Fore-Can ill certainly impact organizational strategies- IF there is uptake ... however this will require continued support and work to make it happen.
19. Benefits Which Stakeholders Most?
20. Potential for development of national strategies is immense as all the necessary partners are at the table (CFIA, PHAC, and representatives from the industry partners.
21. Changing existing institutions and building partnerships among actors is likely the highest strength of this initiative.
22. Opportunity for communications was enhanced through the good work on intelligence systems and stimulating the exchange of information
23. Building blocks are in place and networks are in place but the mechanisms need to be implemented for effective early warning..
24. Excellent opportunities for communication and coordination were taken up by the participants.
25. Fundamental building blocks are in place for KM.
26. Great potential exists for innovative policy making
27. Yes, the innovation environment is a constantly changing topic and needs continued oversight.
28. I believe that there is a great potential for new products and services to occur!



Impact Measures Comments



Table 3 . 101 Written Comments on Measures- Sub-Elements

5. Meta Measures

1. Participation is not the same as learning how;
2. The project brought awareness though unsure if it created any new strategic directions
3. They got the ideas about risk and uncertainty but we don't know if they will be implemented
4. Potentially they can improve design and planning - they ...created the insights not sure if they will be applied to planning

6. Pre-Policy Measures

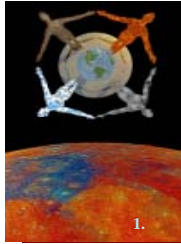
1. R&D impact are hopefully high – need to see if funded projects start to match the 5 capabilities we described.
2. New insights sand knowledge seemed High among participants....will these be translated and used ???
3. Too early to tell regarding policy options
4. We may educate leaders but I don't think we'll ever directly link a specific policy to an individual foresight exercise (except in hindsight, and using selective memory.) good policy development doesn't work that way.
5. Unclear how much to attribute to this project, in terms of connections and network strength, and how much to attribute to several year's effort to build a "national animal health strategy"

7. Policy Support Measures

- I think there is a tendency to be looking a longer timeframes (but not just because of this project.)

8. Post Policy Measures

- (No comments received)



Conclusions



1. **The findings and the comments together present a consistent picture of a project that was both successful in achieving its intended near term objectives, and is well positioned for future impact and development opportunities.**
2. **The ratings questions worked well to elicit stakeholder differentiation - normally regarded as indicative of a good engagement process, and many of the excellent comments reinforce this.**
3. **Because of the clear and generally enthusiastic responses, prospects for continued support from the participants for follow up activities appear positive.**
4. **The combination of a long form and short form for impact assessment was viable, but both formats could be improved. The long format should be tailored to interviews, with some additional guidance provided. While it worked very well to elicit substantive commentary, it clearly was too daunting in terms of the time commitment required for most, particularly in that the impact analysis was an unanticipated additional time commitment for all stakeholders.**
5. **Given the generally responsive attitudes, it is reasonable to assume that with more lead time, improved instruments, structured impact discussions built into the last meeting and a clear link to next stage development ideas, a response rate of over 60% can be anticipated - double what was received with almost no advance notice, and no context preparation. The short format worked very well, but likely missed a relatively easy opportunity to obtain short commentary on each of the eight sections of enquiry - thus enabling participants to elaborate-explain the basis for their scores. The next version of the impact instruments will embody these improvements.**
6. **Overall the post project preliminary impact baseline measurement has been very productive: baseline data and a set of premises for future development and evaluation - assessment have been established, and much of the impact experience has been captured in comments and scores which validate the benefits of the project - notably while still vivid and current.**

