

Stakeholder Consultations Executive Summary

Fall 2008



RDC

RESEARCH & DEVELOPMENT CORPORATION
NEWFOUNDLAND AND LABRADOR

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This is an Executive Summary of the input received from R&D stakeholders who participated in the Newfoundland and Labrador Research and Development Council's consultation sessions, as summarized by Jane Helleur & Associates Inc. It does not reflect the views of the Council.

Introduction

The Newfoundland and Labrador Research and Development Council (NLRDC) is a provincial government entity established in early 2008 to improve research and development (R&D) performance in the province. One of the primary activities of NLRDC is to better understand the opportunities and challenges facing R&D stakeholders and to facilitate the building of partnerships and collaborative efforts among stakeholders.

NLRDC commissioned Jane Helleur & Associates Inc. to facilitate a series of ten stakeholder consultations across the province from September 29 through to November 5, 2008. The intent of the consultation process was to obtain a broader perspective on areas related to the establishment of the NLRDC and to provide a formal mechanism for stakeholder input into the initial development of a provincial research and development strategy.

Sessions were either regionally based or sector based and occurred as follows:

- | | |
|------------------------------------|---|
| 1. Regional | September 29 th : Corner Brook, 9:00 to 11:30 a.m. |
| 2. Health/Life Sciences | September 30 th : St. John's, 1:30 to 4:00 p.m. |
| 3. Education/Research Institutions | October 1 st : St. John's, 9:00 to 11:30 a.m. |
| 4. Ocean Technology | October 1 st : St. John's, 1:30 to 4:00 p.m. |
| 5. Energy | October 2 nd : St. John's, 9:00 to 11:30 a.m. |
| 6. Regional | October 2 nd : St. John's, 1:30 to 4:00 p.m. |
| 7. Regional | October 3 rd : Gander, 9:00 to 11:30 a.m. |
| 8. Regional | October 6 th : Happy Valley-Goose Bay, 1:30 to 4:00 p.m. |
| 9. Regional | October 7 th : Labrador City, 9:00 to 11:30 a.m. |
| 10. Industry Associations | November 5 th , St. John's, 9:00 to 11:30 a.m. |

Each consultation session was designed to be two and a half hours in duration. The format was consistent across locations with Mr. Glenn Janes, Chief Executive Officer of NLRDC delivering an opening presentation that provided a high level overview of the organization. Mr. Janes' presentation was followed by a facilitated discussion among R&D stakeholders. While there was a number of sector-based sessions, the scope of discussion was not limited to a specific sector. The Council and other invited observers listened, but did not participate in the discussion.

Stakeholders were asked to address the five following questions:

1. What are the features of successful R&D environments?
2. What are the R&D opportunities in Newfoundland and Labrador?
3. What are the challenges that stakeholders face?
4. How could stakeholders capitalize on the opportunities?
5. How should these challenges be addressed?

This report provides an account of the responses to the above questions provided by stakeholders during the sessions. Throughout the series of stakeholder consultations, common themes emerged.

Question 1: What are the features of successful R&D environments?

Frequently Identified Themes:

1. **Attitude and Mindset.** Successful R&D environments adopt a 'can do' attitude. Individuals in successful R&D environments value and support research efforts and subscribe to a shared culture and vision.
2. **Funding.** Successful R&D environments have access to funding mechanisms that provide support for the full spectrum of R&D activities. Most successful R&D environments rely, at least in part, on private sector funding and not exclusively on public funding.
3. **Long-term Focus.** Building a successful R&D environment requires patience and persistence. The benefits of R&D investments and activities are not often realized immediately, requiring a long-term commitment, both financially and philosophically. The long-term focus must be impervious to changes among elected government officials.
4. **Leadership.** Successful R&D environments require strong and qualified leadership. These leaders are instrumental in coordinating the various partners and linking these partners to resources. The NLRDC was identified as a potential leader and catalyst in such activities.
5. **Talent Pool.** A strong and robust talent pool of researchers, scientists, technicians, and technologists is necessary for successful R&D environments. To be successful, there must also be a critical mass of R&D activity to create a vibrant and innovative culture that both attracts and retains highly qualified people.
6. **Geographic Location.** The geographic location and what it has to offer, both professionally and personally, is another key element of a successful R&D environment. While remuneration is important, quality of life comes into play. While the province offers attractive quality of life advantages, its geographic location can work as a prohibiting factor, particularly relating to transportation costs for both companies and individuals. For the most part, successful R&D environments are located close to their markets.
7. **Priority Setting and Planning.** Successful R&D environments develop strategic plans and set goals and priorities that are multi-year in approach.
8. **Clustering.** In some R&D environments there is a critical mass of expertise with a level of clustering. Clusters promote innovation, focused efforts, and in some cases shared infrastructure. Such clusters are often linked to post-secondary institutions and 'feed on themselves' to generate more research.
9. **Outcomes.** R&D activities are outcome focused and have positive benefits (whether economic, environmental or societal well-being) that are understood by stakeholders and the public at large. In these environments, the value of R&D is communicated, understood and supported. This is important for research ranging from basic scientific research to applied and industry-specific research.

10. **Propensity for Risk.** Stakeholders noted it is next to impossible to predict the success of outcomes associated with R&D initiatives. Thus, a willingness to take risks in R&D within a culture of entrepreneurship is necessary to develop a successful R&D environment. Successes are promoted in such environments.
11. **Partnerships and Communication.** Significant ingredients for successful R&D environments are strong partnership and collaborative arrangements between industry, academic institutions and government. Thus, there is alignment among all R&D players. As well, there is a need for open communication, trust and transparency such that researchers are connected and aware of each others' achievements.
12. **Infrastructure.** Successful R&D environments invest in infrastructure ranging from research buildings to parks that provide physical space, access to equipment and attractive compensation that rewards people for their research efforts.
13. **Focused and Market-Driven Approach.** Many successful R&D environments pursue key focus areas versus taking a broad, more diverse approach. Environments with focused approaches are in tune with market needs and respond accordingly. In some other successful R&D environments, there is more diversity, but with a sense of connectedness and sharing. Clustering versus diversity is a matter of vision and strategy and one that must be addressed in determining the province's approach to R&D.
14. **Natural Assets.** To realize R&D success, it is imperative to be cognizant and focus on the area's natural assets and strengths. This was seen as providing a strong foundation for R&D. With respect to this province, natural resources such as energy and our ocean environment were identified as natural assets on which to further develop R&D.

Less Frequently Identified Themes:

1. **Focus on Wealth Creation.** Successful R&D environments make investments to create wealth versus jobs. However, there was acknowledgement of the relationship between knowledge generation and economic performance and of policy frameworks that support R&D.
2. **Immediate Benefit.** Some participants felt successful R&D environments are directed to achieve an immediate benefit, primarily one that drives growth in an industry, solves an industry problem or issue or which addresses an unmet market need.
3. **Intellectual Property.** In successful R&D environments, universities enable researchers to retain rights to their intellectual property and patents. This was felt to spur entrepreneurship through pursuit of commercialization and business start-up opportunities.
4. **Incubation Support.** Commercialization of R&D efforts should be supported by incubation support for start-up companies.
5. **Healthy Competition among Universities.** It was noted that where there is more than one university in a jurisdiction, healthy competition and R&D excellence emerge.

6. **Champions.** Successful R&D environments showcase successes and rely heavily on champions to further R&D growth.

Question 2: What are the R&D opportunities in Newfoundland and Labrador?

Frequently Identified Opportunities

Across the ten sessions there were similarities in the R&D opportunities identified. The frequently identified opportunities are as follows:

- **Energy.** All consultation sessions identified energy as an area of opportunity for R&D. There is an opportunity to build on local expertise and anticipated industry R&D expenditures in this sector. For example, there are significant technological challenges to be overcome for the oil and gas industry in the Arctic/harsh environments. R&D will be required to address development, production and transportation challenges. The province is seen as having a solid understanding of harsh environments and is well-positioned to address these challenges. Other R&D opportunities identified related to light well intervention technologies and renewables such as wind energy.
- **Ocean Technology.** Most of the consultation sessions identified the ocean technology sector as an area of opportunity for R&D, with significant academic expertise and infrastructure already present. It was noted ocean technology is also supported by the oil and gas industry. Within this sector, ice, fisheries, aquaculture, harvesting, navigation, seabed mapping, ocean engineering, ocean intelligence, simulation, offshore safety and emergency response measures and underwater remote operated vehicles merit further exploration. Stakeholders felt the province has the potential to become a world-class leader in this sector.

Less Frequently Identified Opportunities

Less frequently identified R&D opportunities, in no particular order are as follows:

- **Aquaculture.** The aquaculture industry in this province is relatively small, but growing. R&D is required to discover region-specific aquaculture methods, as successful approaches in one environment are not always transferable to other environments.
- **Forestry.** There are opportunities to deepen the scope of the industry through R&D efforts to develop products that resist worm infestation and to develop new forest products.
- **Nutraceuticals and Biological Products.** The natural biological assets of the land and sea present a significant opportunity for research and product development.
- **Food Technologies.** Agricultural development was also identified as a growth area. As transportation costs continue to rise and the impacts of climate change are realized, the use of food technologies to create a sustainable food economy may become an imperative.
- **Consumer Electronics.** This is an area where divergent views were expressed. Some participants felt the province did not have the capacity to pursue this area aggressively. Despite this viewpoint, there have been successes realized in this area and there may be opportunities to build on these successes.

- **Mining.** The mining industry provides rich R&D opportunities including areas relating to fine iron recovery, dust suppression, energy efficiency, ore product enhancement and quality. Currently this R&D is occurring outside the province, but with proper investment and support, this could be a focus area for the province.
- **Biomedical Research.** Memorial University's Division of Biomedical Sciences has been successful in recruiting a number of highly skilled scientists that favourably positions the Division to undertake successful R&D initiatives in biomedical sciences.
- **Clinical Trials.** There are opportunities to commence Phase 1 clinical trials for 'first in human' testing of pharmaceuticals. Clinical trials in general were identified as having significant potential for the province.
- **Occupational Health and Safety Research.** SafetyNet is a leader in this field of research and is well positioned for occupational health and safety research.
- **Health Conditions and Genetics.** The province has high rates of the leading health problems. There is an opportunity for both genetic and clinical research in the areas of diabetes, cancer, cardiovascular disease and obesity. Currently, the Newfoundland and Labrador Centre for Health Information (NLCHI) is able to link data at the population level enabling innovative research in genetics. Some participants felt that relative to other jurisdictions engaging in genetic research, this province is somewhat behind. In contrast, others felt the province's founder population coupled with access to electronic health records provides the province with a distinct advantage and represents a rich opportunity for genetics research.
- **Offshore Medicine.** There is interest in conducting research that can be applied to the offshore setting with the potential to support offshore medicine as a growth sector.
- **Earth Resources.** Earth resources were seen as having a great deal of potential having been a component of the province's economy for a long time.
- **Cultural and Social.** There is a growing expertise base at Memorial in folklore, music, Celtic, and North Atlantic Rim cultural studies. This was identified as a potential R&D growth area for the province. It was also noted that Labrador is culturally distinct and this too provides a rich environment for social R&D.
- **Intelligence Systems and Automation.** Autonomous aerial and underwater vehicles were identified as an area of opportunity. This type of research was seen as crossing a number of applications.
- **Geotechnics.** Geotechnics (i.e., the application of scientific methods and engineering principles to the acquisition, interpretation, and use of knowledge of materials of the Earth's crust and earth materials for the solution of engineering problems) was seen as an area of importance, especially if the province is to focus its attention on underwater R&D.
- **Other Technologies.** There was also the view that R&D in specific areas such as information technology and nanotechnology are areas where R&D can just as easily occur in the province as in other jurisdictions.

- **Defence and Security.** Defence and security was identified as a growing sector, offering a great deal of potential. It was seen as being closely linked with the ocean technology sector.

Participants expressed divergent views regarding how R&D opportunities should be pursued. More specifically, some participants felt focus areas should be selected on the basis of the province's natural strengths and proven capabilities. Ocean technology, oil and gas, mining, and forestry were identified as such areas. Another view expressed focused on emerging areas, such as nutraceuticals, aquaculture and human genetics research: a natural advantage with emerging capabilities. These latter areas were seen as holding immense potential and warranting focused R&D investments.

Irrespective of the focus area, all agreed the selection process must take into consideration the wide range of possible R&D activities and their potential economic, environmental or social impact. For the most part, stakeholders were in agreement that focus areas must be selected, but not at the expense of jeopardizing a balanced approach that embraces the R&D continuum ranging from basic scientific research to problem-based research, to commercialization.

Question 3: What are the challenges that stakeholders face?

Frequently Identified Challenges:

- **Funding.** Public funding structures and mechanisms for R&D do not always match sector needs. This contributes to excessive time investments to secure funding. Significant time lags also exist between proposal submission dates, the approval process, and then the flow of funds. As funding sources are generally fragmented, considerable time can also be spent in meeting reporting requirements for projects that are funded from multiple sources. Some participants noted that federal government R&D programs are more supportive of companies in Ontario and Quebec than those in Atlantic Canada. There are also difficulties in securing and sustaining funding to transition to commercialization and/or implementation. It was noted many smaller and rural companies do not have sufficient profit margins to engage in R&D activities.
- **Human Resources Capacity.** Currently, there is a lack of qualified researchers and scientists. With such a limited pool of human resources, the province has little opportunity for turning the tide for increasing the current level of R&D productivity. Participants acknowledged recruitment and retention issues are global challenges and are not unique to the province. Lack of highly qualified people will be an ongoing challenge in reaping the benefits of R&D opportunities.
- **Focus and Coordination.** There is a lack of coordination and focus regarding the best means to optimize results. The innovation chain, from inception to commercialization is composed of many steps, with each step having its own unique set of needs. Current structures and systems make it difficult for innovators to obtain the right R&D resources and supports when required throughout the innovation continuum.
- **Governance and Centralized Control.** The inability to maintain focus is reflective of the absence of a strong governance model. There is a centralized decision-making process that does not complement entrepreneurial growth. Changes within government result in shifting priorities and strategies. This is counterproductive to the longer-term approach required to support R&D.

- **Geographic Isolation.** Due to a lack of reliable and affordable air access, there are challenges associated with getting both people and products to and from the province. As well, the province's distance from markets and R&D colleagues is a barrier.
- **Draw for Industry.** There are minimal incentives for major companies and researchers who wish to establish R&D operations in the province. Currently there is no scientific or innovation park within the province and a weak industrial base.
- **Rewarding Success.** There is a tendency in the province to not take risks and not reward success.
- **Lack of Clustering.** With the exception of ocean technology, there is no anchor and only a limited clustering of industry in this province to sustain R&D. Clusters attract people and capital which generates success.
- **Linkages.** The lack of linkages and collaboration between government, industry and academic institutions were cited as an impediment to creating a strong R&D culture. Some participants believe a strong R&D culture does not exist beyond the university.
- **Infrastructure.** Access to physical space was identified as an infrastructure obstacle to be addressed.

Less Frequently Identified Challenges

- **Negative Perceptions.** There is a perception that Newfoundland and Labrador is not successful or the place for R&D.
- **Telecommunications System.** The telecommunications system is inadequate in rural Newfoundland and Labrador and prohibits some R&D activity, most notably in aquaculture.
- **Local Buy-in.** Some participants experienced resistance from local communities to their R&D activities. These individuals highlighted the value of garnering local support and buy-in as activities that will assist in reducing local opposition.
- **Access to Expertise in Rural Areas.** There is a shortage of qualified workers, most notably in rural areas of the province. Educated residents of the province and young people are moving elsewhere for monetary and lifestyle reasons. The continued out-migration of young people is a challenge facing rural Newfoundland and Labrador.

Question 4: How could stakeholders capitalize on the opportunities?

Frequently Identified Themes

- **Approach to Planning.** A strategic plan outlining focus areas, targets and milestones is necessary to guide R&D activities. Such a plan should be developed with stakeholder input and should have a long-term focus. NLRDC was seen as being in a position to oversee this process.

A strategic plan should be accompanied by a screening mechanism to determine whether or not a given opportunity should be pursued. The screening process must be based upon agreed criteria that are well communicated to stakeholders.

Of considerable debate is whether or not the province should invest primarily in areas where there is a greater opportunity for success, such as in existing industry or areas of known natural strengths (e.g., the energy and ocean technology sectors). These areas were noted to have the highest potential for 'early wins'. Others advocate for greater diversity in R&D investments.

- **Collaborative Partnerships.** In the past, there has been competition for resources. Coming together and collaborating under an R&D agenda may have a positive impact. More collaborative partnerships must be formed between industry, government and academic institutions. It was noted that in order for R&D projects to be effective, partners must bring human, financial, or other resources to the table. Academia must have a clear understanding of the products or outcomes that industry requires, and the associated timelines and the processes required to carry them out.
- **Communication.** R&D players must find ways to communicate with each other and to disseminate information regarding what is occurring in R&D. This will assist in avoiding duplication and provide additional opportunities for future collaboration.
- **Celebrate Successes.** There is a need for R&D champions to be identified and highlighted as examples of success. Sharing of success stories is seen as one of the most successful ways to motivate and engage others in R&D activities. People want and like to be part of success stories.

Less Frequently Heard Themes

- **Research Brokers.** An independent facilitator/facilitating body who is able to connect a private sector opportunity with a suitable researcher and with appropriate government support personnel is necessary. This facilitator would also be responsible for project management, and ensuring that proposal writing, budget management, contract management duties and requirements are fulfilled. Most researchers are not interested in these elements of R&D, nor is it a good use of their time.
- **Activity-based Focus.** It was suggested that rather than focusing on industries, the focus should be on the activities within industries that require R&D and new technology. For example, process engineering is a technology that is applicable to oil and gas, mining, pulp and paper, fish processing and other industries.

- **Intellectual Property Management.** Sufficient flexibility is required regarding the approach taken to intellectual property management within academic institutions. It was felt that strong working partnerships are established when intellectual property is not a constraint.
- **Public Support.** Buy-in and support from the general public for R&D initiatives was identified as having a potentially profound impact on R&D. The general public need to be made aware of R&D's contribution to the economy and endorse R&D investments.
- **Consistency Among Federal Programs.** Some participants noted the importance of having consistency in the manner in which federal programs are delivered and administered across the country. It is essential that all those engaged in R&D activities have an equal opportunity to gain access to federal government programs, regardless of geographic location. It was also suggested that the National Research Council's budget for the Industrial Research Assistance Program (IRAP) be greatly enhanced.
- **Jurisdiction Review.** It was recommended a review of other successful R&D jurisdictions be undertaken. The purpose of this review would be to examine models used elsewhere and to identify the nature of government intervention and commitment.

Question 5: How should these challenges be addressed?

Frequently Identified Themes

- **Governance Model.** A sound governance model should be developed as part of the establishment of the NLRDC as a crown corporation. It was noted the Council requires independence and should have the ability to make decisions free of political interference.
- **Develop a Comprehensive Strategic Plan.** Government should develop a very high level and concise strategic plan. This plan should be followed up with an implementation plan that is clear about what is to be achieved and how it will be achieved.
- **Infrastructure and Investment.** The infrastructure needs to be in place before R&D growth can occur. This infrastructure includes space, (including incubator space), well-equipped laboratories within academic institutions, funding to support research, and a competitive salary environment for highly qualified personnel.
- **Realistic Expectations and Long-term Focus.** It will be important to set realistic expectations. Boosting the province's R&D performance represents a long-term endeavour, involving identifying opportunities and resourcing, supporting, and harnessing their potential. A long-term approach of even 15-20 years may be required.

Less Frequently Identified Themes

- **Adopt an Investment versus Funding Approach.** The current funding systems are not meeting the needs of R&D stakeholders. It was recommended that more efficient and effective funding approaches be developed. It was noted that it may be of more value to adopt an 'investment approach' versus a 'funding approach.'
- **Balanced Approach.** A balance between focusing on the non-renewable resources and other R&D focus areas must be reached. While the province has benefited greatly from the oil and

gas industry, it is a resource that needs to be managed responsibly. Striking a balance between spending near-term on non-renewable opportunities versus on longer-term opportunities will be important.

- **Incentives for Local Investors.** To make local investments more attractive, companies should receive tax breaks versus standard tax credits.
- **Focused Portfolio.** It was suggested the province should not ‘put their eggs in one basket’ and instead identify focus areas. In other words, some cautioned that targeted investments in one sector could lead to a narrow focus for R&D.

Role of Council

In addition to the five questions previously outlined, participants identified the roles and responsibilities of NLRDC. The following were identified as key Council roles and responsibilities:

Leadership. To fulfill its mandate, NLRDC must assume a lead role as an at-arms-length, non-governmental organization with the autonomy to make decisions without political interference. It will be important to be recognized as the ‘true provincial broker’ for R&D to facilitate agreements between stakeholders in industry, the federal and provincial governments, and academic institutions. Stakeholders expect the NLRDC to be a catalyst, coordinator and facilitator for R&D, but not necessarily an R&D performer. It was noted, the Council should build on what is currently occurring in the province. The initial focus should be on stakeholder collaboration to create productive partnerships and providing funding to support R&D.

Strategic Focus: While participants identified a substantial list of possible roles and responsibilities for the Council, participants were quick to note that the Council should not try to be ‘everything to everyone’, but rather adopt a strategic focus. Many participants identified the need for the Council to play a role in support of R&D funding, focus on priority areas and work collaboratively with stakeholders to build R&D capacity in the province.

Planning. It is hoped the Council will set the direction for R&D in the province from a social, environmental and economic development perspective. Through establishing focus, achievable goals and objectives, and the latitude to be persistent, it is possible to develop and implement a roadmap that best represents a long-term vision of R&D.

Participants made a number of suggestions regarding the development of a plan as follows:

- Listen to stakeholders and make the tough, but strategic decisions regarding the focus of R&D in the province.
- Be receptive to ‘outside the box’ strategies and approaches.
- Monitor the chain of events in R&D processes.
- Use a business case model.
- Identify performance indicators linked to the overall goals for both the short and long-term.
- Conduct a provincial funding gap analysis.
- Obtain buy-in from small-medium size enterprises and from academic institutions.
- Conduct evaluation and measurement of R&D priorities.
- Maintain flexibility in approaches to capture new or emerging opportunities in other areas or sectors.

Communications and Marketing. It is critical to define what constitutes R&D success and to highlight and communicate examples of success. Recommended activities focused on assisting stakeholders in 'getting the message out' about what they are doing and disseminating information regarding R&D in the province.

Another primary role should include acting as the 'go between' or communicator between government departments, industry and academia. For example, it is important to initiate and maintain communications with government funding agencies, particularly those at the national level.

Appendix Participant and Observer List

Corner Brook: **September 29th**
9:00 – 11:30 a.m.

Participants

Brent Howell
Glenn Payne
Brian Tobin
Robert Otto
Sean Dolter
Robert Hooper
Wade Bowers

Observers

Rita Malone
Ross Firth
Greg Wood

Organization

Centre of Excellence for Environmental Science, Research and Technology
Geospatial Research Facility, College of the North Atlantic
College of the North Atlantic
Institute for Biodiversity, Ecosystem Science and Sustainability
Model Forest of Newfoundland and Labrador
MUN Bonne Bay Marine Station
Sir Wilfred Grenfell College

Department

Innovation, Trade and Rural Development
Environment and Conservation
Rural Secretariat

Health and Life Sciences: **September 30th**
1:30 – 4:00 p.m. (St. John's)

Participants

Dr. Ken Ledez
Dr. Ann Dorward
Dr. Mark V. Abrahams
Dr. Penny Moody-Corbett
Dr. Stephen Bornstein
Dr. Don MacDonald
Dr. Wayne Gulliver
Donna Bruce

Observers

Colin Holloway
Ken Carter

Organization

Centre for Offshore and Remote Medicine (MEDICOR)
Faculty of Medicine, Memorial University of Newfoundland
Faculty of Science, Memorial University of Newfoundland
Faculty of Medicine, Memorial University
NL Centre for Applied Health Research
NL Centre for Health Information
NewLab Clinical Research Inc.
Patient Research Centre, Eastern Health

Department

Rural Secretariat
Rural Secretariat

Education and Research Institutions:

October 1st

9:00 – 11:30 a.m. (St. John's)

Participants

Mohammed Iqbal
Robert Rutherford
David Miller
David King
Rob Greenwood
Chris Loomis
Carey Bonnell
Lawrence Cochrane
Jeff Parsons
Madonna Bishop

Observers

Rebecca Roome
Jackie Weir

Organization

College of the North Atlantic
Offshore Safety and Survival Centre
CREAIT
Genesis Group
Leslie Harris Centre of Regional Policy and Development
Memorial University of Newfoundland
Canadian Centre for Fisheries Innovation
Inco Innovation Centre
Faculty of Business Administration, Memorial University of Newfoundland
MUN Botanical Gardens

Department

Education
Environment and Conservation

Ocean Technology:

October 1st

1:30 – 4:00 p.m. (St. John's)

Participants

Charles Randell
Joe Tillman
Derrick Rowe
Ian Fleming
Brad de Young
Brian Veitch
Randy Gillespie
Barry Dawe
Mary Williams
Dan Walker
Byron Dawe
Randy Billard

Observers

Brian Wade
Darin Steeves

Organization

C-CORE
Fisheries and Oceans Canada
Marport Canada Inc.
Memorial University of Newfoundland
Memorial University of Newfoundland
Memorial University of Newfoundland
Marine Institute
Northern Radar
NRC Institute for Ocean Technology
Oceanic Consulting Corporation
Rutter Inc.
Virtual Marine Technology

Department

Innovation, Trade and Rural Development
Business



Energy: **October 2nd**
9:00 – 11:30 a.m. (St. John's)

Participants

Craig Young
Jerry Kohut
James Keating
Margaret Allan
Calvin Dwyer
Michael Snow
Mike Paulin
Phil Bording
Alan Brown
John Downton
Scott Bittner
Erik Abrahamsen

Observers

Frank Smyth
Wes Foote

Organization

Centre for Marine CNG Inc.
Chevron Canada
Energy Corporation of Newfoundland and Labrador
Husky Energy
Hyflodraulic Limited
ICP Solar
IMV Projects Atlantic
Memorial University of Newfoundland
PetroCanada
PetroCanada
Schlumberger
StatoilHydro Canada

Department

Canada-Newfoundland and Labrador Offshore Petroleum Board
Natural Resources

St. John's Regional: **October 2nd**
1:30 – 4:00 p.m.

Participants

Bonnie Cook
Kevin Flemming
Robert Thomas
Ross Butler
Stuart Inkpen
Mark Ploughman
Ray Gosine

Observers

Eric Bartlett
Michelle Cluett -Fizzard
Bill Parrott
Brian Meaney

Organization

AbbyShot Clothiers Ltd.
Plato Consulting Inc. & Camouflage Software Inc.
Compusult Ltd.
Cooke Aquaculture Inc.
INSTRUMAR INC.
Lotek Wireless Inc.
Memorial University of Newfoundland

Department

Workplace, Health, Safety and Compensation Commission
Innovation, Trade and Rural Development
Environment and Conservation
Fisheries and Aquaculture

Gander Regional: **October 3rd**
9:00 – 11:30 a.m.

Participants

Doug Caines
Kevin Skinner
Wallace Roberts
Job Halfyard
Matthew Brake

Observers

Percy Farwell
Tanya Noble

Organization

Northern Harvest Sea Farms Newfoundland Ltd.
NRC-IRAP
Seacraft Ltd.
Sunrise Fish Farms Ltd.
Whey R&D

Department

Innovation, Trade and Rural Development
Rural Secretariat

Happy Valley/Goose Bay Regional: October 6th
1:30 – 4:00 p.m.

Participants

Winne Montague
Ernie McLean
Wayne King
Keith Chaulk
Judy Rowell
Rob Pilgrim
Beatrice Hunter

Observers

Craig Taylor
Reg Kean
Ron Bowles
Lisa Densmore

Organization

College of the North Atlantic
Combined Councils of Labrador
Department of Fisheries and Oceans
Memorial University of Newfoundland
Parks Canada
Serco Facilities Management Inc.
Regional Economic Development-Zone 3

Department

Fisheries and Aquaculture
Innovation, Trade and Rural Development
Labrador and Aboriginal Affairs
Rural Secretariat

Labrador City/Wabush Regional: October 7th
9:00 – 11:30 a.m.

Participants

Richard Sawyer
Gurinder Ahluwalia
Patrick Lauzière
Bill Dodds

Observers

Paul Carter

Organization

College of the North Atlantic
College of the North Atlantic
Iron Ore Company of Canada
Wabush Mines

Department

Natural Resources

Industry Associations: November 5th
9:00 – 11:30 a.m.

Participants

Bob Cadigan
Les O'Reilly
Paul Barnes
Miranda Pryor
Paul Dubé
William Scott
Bill Stirling
Derek Butler
Gerry O'Connell
Colleen Kelly
Robert Ritter
Paul Conners
Sharon Beattie

Association

Newfoundland Ocean Industries Association
OceansAdvance Inc.
Canadian Association of Petroleum Producers
Newfoundland Aquaculture Industry Association
Newfoundland and Labrador Association of Technology Industries
Newfoundland and Labrador Environmental Industry Association
Canadian Manufacturers and Exporters
Association of Seafood Producers
Newfoundland and Labrador Chamber of Mineral Resources
Association of Registered Nurses of Newfoundland and Labrador
Newfoundland and Labrador Medical Association
Newfoundland and Labrador Federation of Agriculture
Aerospace and Defence Association of Newfoundland and Labrador