



Strategic Plan

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A realistic image of the Earth globe, showing the Americas, positioned between the '20' and '20' of the '2020' text.



Fisheries and Marine Institute of
Memorial University of Newfoundland

Vision 2020
Strategic Plan

Prepared March 2010

Becoming a World Oceans Institute

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Introduction

Vision 2020, completed in 2005, presents an ambitious but clear image of the Marine Institute of the future. It was developed over one year of intensive consultation, analysis and reflection. Today, Vision 2020 engages widespread support, both within the Marine Institute and among external stakeholders. We know where we are going.

Preparation of Vision 2020 was a significant accomplishment. However, it is just the beginning. In order to achieve Vision 2020, it is necessary to undertake a comprehensive planning process (strategic plan and iterative implementation plans) to define how to bring the Marine Institute from where it is to where it wants to be.

This Vision 2020 Strategic Plan presents the Mission and Values of the Marine Institute and summarizes the Strategic Plan of Memorial University, all of which provide a context for the Institute-wide Priorities and the Strategic Initiatives that need to be undertaken. The Strategic Plan has been developed based on analysis completed during the Vision 2020 process and through consultations during the past couple of years, in particular the 2006, 2007 and 2008 annual planning cycles involving all Schools, Centres and Divisions of the Institute.

Vision 2020

Background

The vision which guided the Marine Institute for its initial two decades after being formed from the College of Fisheries in the mid-1980s can be summarized in three statements:

- create a Centre of Excellence in marine and fisheries technology in Newfoundland;
- become Canada's foremost fisheries and marine institute; and
- become the leading and most comprehensive marine institute in North America.

When the vision was developed, its achievement was a daunting task. It required the:

- massive overhaul of academic programs in terms of scope, level, and academic rigor including the introduction of degree programs;
- conceptualization, funding and building of world-class facilities;
- positioning of the Institute in marine and fisheries education and training across Canada;
- establishment of a strong international presence;
- development of research capacity;
- attraction of superb faculty and staff; and
- the building of a culture of success.

By 2004, this vision had largely been achieved and the Marine Institute embarked upon a new visioning process which it entitled Vision 2020. This was an intensive process involving significant consultation with stakeholders, environmental scanning, advice and debates. The Vision 2020 document was completed early in 2005 and endorsed by the Industry Advisory Committee of the Marine Institute and the Board of Regents of Memorial University. Vision 2020 was also presented to a joint meeting of the Economic and Social Policy Committees of the Provincial Cabinet.

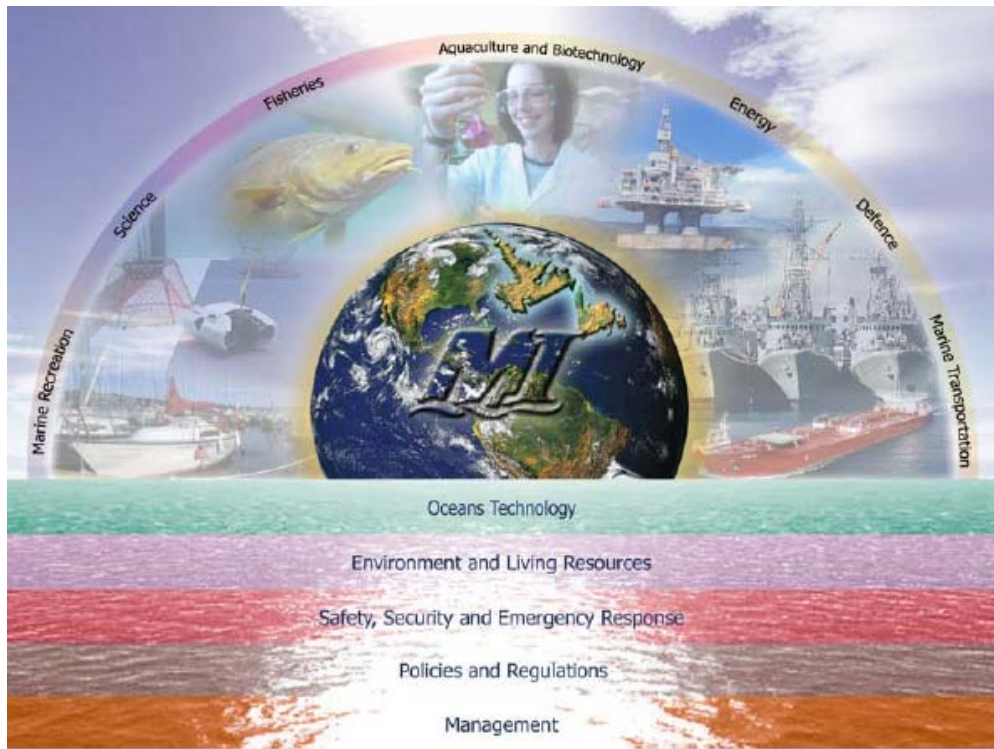
Focus of the Marine Institute

One of the key questions that was dealt with during the visioning process was whether the focus of the Marine Institute should remain as it was or should it expand. The overwhelming answer was that the Marine Institute should redefine itself in terms of the “global oceans economy.”

Accordingly, the scope of the Marine Institute was defined to include seven key sectors of the ocean economy, as well as five themes which cut across all these sectors:

Sectors

We envision the Marine Institute engaging in seven key sectors of the oceans economy, based upon industry demand and development. We will continue to strengthen our role in the fisheries and marine transportation sectors. We will explore the growth of food production through aquaculture and the application of biotechnology to create new products and services. Furthering our services for naval fleets that operate around the world will be a focus. We will expand our role in the offshore oil and gas industry and undertake projects towards harnessing the power of the ocean that will make MI a leader in the field of ocean energy. We will apply our expertise to support the scientific investigation and discovery of the oceans. And we will open new training and service opportunities in the marine recreation sector.



Cross-cutting Themes

Each of these sectors share common issues that MI will also address. From using technology to utilize ocean resources, to understanding the ocean's environmental impact, to upholding international standards for safety, security and emergency response, to participating in the development of global ocean policy and the effective management of ocean industries, MI will be a major player in the development of our global oceans economy.

Vision Statement

Our vision for the future is simple... *to be a world oceans institute, setting the standards for education, training, innovation, and research.*

These elements make this vision achievable:

- our central focus is oceans, including all aquatic environments such as the global oceans, seas and the waterways leading to them;
- our education programs and research and development align with sustainable development priorities and the realities and needs of the ocean industry; and
- the Marine Institute is an integral part of Memorial University, collaborating fully with its facilities and schools in education and research.

Mission

The mission of the Marine Institute is to foster economic development in strategic sectors of the Newfoundland and Labrador economy, particularly the fisheries and offshore, and to enable Newfoundlanders and Labradorians to participate in the marine industry nationally and internationally.

The mission provides for the development of the Institute as an industrially relevant institution. Through its wide range of technical education and training courses, including short industrial response courses, diploma of technology programs, and Bachelor and Masters degree programs as well as its participation in research and development, technology transfer, and public policy advocacy initiatives, the Marine Institute is actively involved in contributing to the economic development of Newfoundland and Labrador.

Values

Being successful means applying your strengths to their full potential. Those values that shape the Marine Institute of today and those that we will use to make it even stronger for tomorrow include:

A World-Class Oceans Institute

The Marine Institute is recognized as a world-class oceans institute. Our programs reflect its ocean orientation and are developed to meet labour market forecasts and industry needs.

Stewardship

MI promotes the sustainable development of renewable resources and responsible use of non-renewable resources because stewardship of our oceans underlines all that we do. Activities conducted in an environmentally conscious and well-managed manner will secure the future for the industries we serve.

Serving Newfoundlanders and Labradorians

MI is an integral part of the provincial, national and international educational community. MI seeks opportunities to advance education, training and research and development related to oceans and coastal economies around the globe. There is a special priority on serving Newfoundlanders and Labradorians, sharing our expertise for the economic growth and development of our province.

Research and Development

Our research and development programs bridge the gap between fundamental research and commercialization by building upon alliances with educational and research institutions, the private sector, community groups, governments and agencies. Within a culture of entrepreneurship and collaboration, we aim to solve challenges within industry and communities.

Learning Culture

Teaching and learning is conducted in a vibrant academic environment, with student academic and career success being our primary goals. To accomplish this, MI promotes a learning culture

that permeates its faculty, staff and management through a professional development and lifelong learning program.

Learning Technologies

MI believes in incorporating learning technologies that enhance teaching and learning and facilitate research and development. The integration of new advancements in technology enables MI to serve a broad spectrum of clients efficiently and effectively.

Quality and Leadership

The Institute's reputation for quality and leadership is held as the standard for other institutions. We continuously review and improve our activities and consistently provide dedicated professional services and high quality products.

Collaborative Culture

A hallmark of the Marine Institute is its collaborative culture. This culture is nurtured through a strategic planning system that encourages our people to bring forth their ideas and provide constructive feedback. It is reflected in our mutually beneficial alliances with other faculties and schools of Memorial University, with other educational institutes, the private sector, community groups and government agencies.

Memorial University Strategic Plan

In 2007, Memorial completed its most recent strategic plan, which was the result of a comprehensive consultation with the university community and the province. The objective of the plan is to build on the success of Memorial University's previous plans and to outline the important priorities that will guide the university in its next five years and beyond. The plan supports a growth agenda for Memorial, and includes outcomes, targets and annual progress measures and twenty-nine major goals that will be pursued.

Mission

As part of the planning process, Memorial's mission was revised to reflect its efforts to expand into activities beyond the borders of the province, such as national and international student recruitment and involvement in international projects. Memorial's revised mission is as follows:

Memorial University is an inclusive community dedicated to creativity, innovation and excellence in teaching and learning, research and scholarship, and to public engagement and service. We recognize our special obligation to the people of Newfoundland and Labrador.

Memorial welcomes students and scholars from all over the world and contributes knowledge and shares expertise locally, nationally and internationally.

Core Values and Principles

A set of strongly held core values and principles guide the university as it makes the decisions that will shape its future.

- Quality and Excellence
- Creativity, Ingenuity, and Innovation
- Equity, Equality, and Diversity
- Accessibility
- Collegiality and Cooperation
- Responsiveness and Flexibility
- Competitiveness
- High Ethical Standards
- Sustainability
- Accountability and Transparency

Vision

Above all, Memorial will remain a highly accessible and comprehensive institution that is true to its core values. It will be an exciting place to work and study and will boast of a highly supportive environment where students, faculty and staff can thrive. It will be inclusive but at the same time sufficiently focused so that the university builds on its natural advantages/strengths and on the needs of the province.

Memorial will continue to grow in many ways. There will be significant growth in the graduate student population along with relatively modest growth in undergraduate enrolment. The number of students from the rest of Canada will grow, as will the international student population. There will be greater emphasis on experiential learning opportunities for students. The environment of all campuses will be enhanced by new and renewed infrastructure, positioning the university among the best in the world.

Research activity will grow and there will be much greater levels of cooperation and collaboration across disciplines, across campuses, and with other institutions. New areas of research specialization will have emerged along with exciting new educational programs.

Sir Wilfred Grenfell College will experience significant growth in enrolment, driven by new high-demand programs, and will develop a stronger research mandate consistent with its strengths and the needs of the communities it serves. The Marine Institute will be well on its way to implementing its own strategic vision and be emerging as one of the world's foremost ocean institutes. The university will invigorate its relationships with traditional partners and develop new ones to help achieve strategic objectives.

Pillars and Goals

The strategic plan is built on five pillars: Students; Research, Creative Activity, and Scholarship; Needs of the Province; Conditions for Success; and Institutional Responsibility. Within these five pillars twenty-nine goals that will be pursued have been identified.

Students

Students are the central focus of Memorial University. Their success while attending the university and afterwards is a key measure of our success. The university is committed to providing high-quality education and to fully develop students' potential to become active, engaged and productive members of their community, the province and the world.

Research, Creative Activity, and Scholarship

Memorial University is committed to creating a vibrant culture of scholarly inquiry, where knowledge is created and transformed with excitement, creativity and rigor. The development of Newfoundland and Labrador remains central to research activity at the university, but equally important is how this activity is situated in global terms. Memorial will identify research themes that enable fruitful, cross-disciplinary approaches and the sharing of resources. Memorial University will continue to support a culture of scholarly inquiry that promotes the development of partnerships, both public and private, and encourages open-mindedness in all research endeavours.

Needs of the Province

Memorial has played a major role in the development of Newfoundland and Labrador and remains committed to its cultural, social and economic needs. The university brings its expertise out to communities, actively engaging in dialogue to learn more about the problems they face, and to raise awareness of the value of a highly educated population.

Conditions for Success

For Memorial to be successful in achieving its goals, an institutional commitment must be made to strengthen the conditions necessary for success. Many of the goals cannot be achieved without a renewed commitment to the university community and the community at large to new and vibrant infrastructure and to new and enhanced funding sources. Administrative policies and procedures should facilitate progress towards the university's goals and objectives. In an increasingly interdependent world, additional efforts must be made to publicize Memorial and its strengths, within the province and to the rest of the world.

Institutional Responsibility

Memorial is open and transparent with its constituents, accountable to its funders and responsible for its actions. The university operates in a manner that allows open communication about its activities, progress towards stated goals and objectives and use of resources.

Marine Institute-Wide Priorities – 2010 and Beyond

A. Students

- i) Enhance recruitment of students
- ii) Retain students and achieve high academic success
- iii) Prepare students for career success
- iv) Provide a superior environment for teaching and learning
- v) Provide a high level of auxiliary support services to students

B. Programs

- i) Enhance graduate programs
- ii) Restructure and enhance diploma and degree programs
- iii) Increase the number of certificate and technician diploma programs
- iv) Increase short course and industrial/professional development course offerings
- v) Enhance program and course delivery structures

C. Research

- i) Establish an administrative and policy support system
- ii) Develop a research and development strategic plan
- iii) Build and support a collaborative research and development culture
- iv) Revitalize existing research centres
- v) Pursue funding for chairs, networks and other mechanisms to support leading edge basic and applied oceans research
- vi) Attract human resources and obtain physical resources
- vii) Promote the Marine Institute's research and development capability and capacity
- viii) Foster the development of potential research partners

D. Outreach/ Needs of the Province

- i) Accessibility
- ii) Recruitment and retention
- iii) Research and development
- iv) Industry Response
- v) Aboriginal Peoples
- vi) Regional and rural development

- vii) Internationalization of the Marine Institute
- viii) Projects and consultancies

E. Conditions for Success

- i) Recruit, retain and develop the very best employees at all levels of the organization
- ii) Ensure technology, physical infrastructure and information resources are state-of-the-art and appropriate to fulfil the Institute's mandate
- iii) Ensure an enabling environment of strong and effective leadership, appropriate organizational structure and an open and entrepreneurial culture
- iv) Ensure that the Marine Institute's practices, policies and procedures promote sustainability by reconciling environmental, social and economic demands
- v) Attain the optimum level of financial resources to sustain growth and ensure long-term viability
- vi) Embrace change in administrative processes to ensure efficient and effective service levels
- vii) Effectively market the Marine Institute

Priorities and Strategic Initiatives

A. Students

Students will continue to be the primary focus of the Marine Institute. Programs will be designed and delivered in a manner that will provide students with highly competitive skills and abilities. There will also be an increased commitment to provide a learning environment that will allow students to enjoy their studies and their quality of life, and reach their full potential.

Vision: Students in 2020

The Marine Institute will have a vibrant learning environment that fosters academic and career success among our students and graduates. MI will provide outstanding support for our students by integrating innovative learning approaches and technologies, celebrating excellence in teaching and broadening our range of services.

Our oceans programs will attract up to 1,750 students in the coming years of which 20% will be from outside Canada. Industrial programs will attract 14,000 enrolments per year. MI graduates will make waves around the world in their respective industries and become future leaders in our province, and elsewhere.

Strategic Initiatives:

i) Enhance Recruitment of Students

The Marine Institute will respond to changing education and training requirements in the various sectors it supports and programs will be reflective of global trends. The Institute will increasingly seek to recruit students nationally and internationally by marketing itself widely and establish strategies to provide for the recruitment of increasing numbers of high calibre students.

- Increase general awareness of MI as an educational institution with many program options for those interested in the global oceans economy.

- Working with the province's Department of Education and representatives of the secondary school system to continue to develop science and math curricular components relevant to fisheries, marine and oil industries, food and water safety, and ocean technology.
- Ensure that recruitment efforts reach all high school students in Newfoundland and Labrador.
- Implement a recruitment plan to reach students across strategic areas of Canada.
- Develop and implement an international recruitment plan that identifies strategic opportunities to recruit international students, both in the domestic market and in identified international areas.
- Design a model (or models) to improve the conversion of potential students, from expressions of interest to enrolment.
- Streamline the recruitment and registration process.
- Develop a long-term recruitment plan for lifelong learners.
- Establish enrolment targets that are consistent with institutional key performance indicators.

ii) Retain Students and Achieve High Academic Success

To ensure the success of students, the Institute will provide a range of student services designed to maximize student performance and program completion rates.

- Provide the support services needed to enhance the academic performance of students throughout all programs.
- Develop a system to maintain data of student academic performance and track individual students by program.
- Provide academic and non-academic guidance and support to all students.
- Implement an off-campus academic support program.

iii) Prepare Students for Career Success

The career success of its graduates will continue to be a principal focus of Institute activities, with the implementation of an overall career

guidance model that includes the provision of continuing education opportunities to alumni.

- Provide career guidance and support to all MI students.
- Continue to provide exceptional placement support to students enrolled in MI programs.
- Coordinate student employment opportunities for students enrolled in MI programs.
- Encourage a lifelong learning philosophy in graduating students.
- Establish an active alumni association.

iv) Provide a Superior Environment for Teaching and Learning

Underpinning the success of students and alumni will be a commitment to provide excellent teaching and learning experiences that demonstrate superior quality of instruction and appropriate uses of advances in educational technology.

- Establish a suite of faculty professional development activities in teaching and learning.
- Establish an expectation for ongoing faculty professional development activities in teaching and learning.
- Integrate innovative teaching and learning approaches in all courses and programs.
- Achieve blended classroom-online delivery where appropriate for all courses and programs.
- Create a variety of learning spaces to accommodate the unique course offerings and delivery options. Implement field base and at-sea learning opportunities in all ocean programs.

v) Provide a High Level of Auxiliary Support Services to Students

Beyond their academic experience, a student's overall satisfaction is highly correlated to their total experience and the services that are provided to them. The Marine Institute is committed to providing students with timely, accessible and affordable services in the bookstore, food and beverage services and recreation.

- Adapt to changing student requirements.

- Maintain competitive advantage.
- Monitor advances in related technology and processes.
- Ensure services are delivered in a cost effective manner that provides good value for customer expenditure.

B. Programs

The program strategy of the Institute will be reflective of the needs of the province of Newfoundland and Labrador, labour market needs, and the evolution of global ocean industries, as well as being influenced by educational trends and demands from alumni and others in the workforce for ongoing professional and career development opportunities. Future, new, and existing programs will be evaluated continually and improved so that students and graduates can gain program-relevant employment and have the opportunity to earn higher-end educational credentials, comply with industry requirements, and progress in their career development in various ocean sectors.

Vision: Programs in 2020

The Marine Institute will offer a broadened range of oceans-related programs to reflect the wider mandate of the Institute. We will have a global reputation as a knowledge and learning centre attracting the best and brightest students, researchers and instructors in the oceans sectors.

Our suite of established and specialized industrial programs will remain the solid base of our educational offerings, providing industry personnel with relevant, high-quality training. Numbers of short courses will be grouped together into technical certificate and other credentials, and our diplomas of technology will be expanded into a suite of bachelor degrees with a technical focus so as to offer students applied skills education and training at the degree level and a greater choice of careers and career advancement opportunities.

We will significantly expand our graduate programs. For those already in the industries served by the Institute, additional postgraduate certificate opportunities will provide a greater range of technical professional

development and continuing education choices. We will add to the depth of this programming in order to provide laddering opportunities into postgraduate diploma and master's level credentials. We will further expand our master's level options through the introduction of new course-based programs designed for graduates of our undergraduate degree programs. All of these programs will be designed to be offered online. In addition, our one-year advanced diploma programs will evolve into master's programs that prepare graduates of diploma of technology and bachelor programs for entry into specialized careers. While taking full advantage of online technologies, components of these programs will be delivered on-campus. We will also establish research-based graduate opportunities and introduce a doctoral program for those wishing to be educated at the highest level.

We will continue to grow our online programs to provide a significant level of flexibility of access and scheduling to learners locally, nationally and internationally. We will also introduce alternative on- and off-campus program delivery structures to offer top quality, effective learning opportunities across all programs.

Our programs will provide bridging and laddering opportunities that will encourage the professional development and career advancement of graduates. Where possible, the programming model will take advantage of commonalities to offer a wide range of programs in an economical manner.



Strategic Initiatives:

i) Enhance Graduate Programs

A suite of online postgraduate certificate programs will be developed and offered based upon a matrix of core and elective courses. These programs will provide ongoing professional development opportunities for those working in a variety of oceans-related areas. The same model will be used to develop new course-based, online master's programs. The introduction of these latter programs will lead to the introduction of research-based graduate programming. For on-campus programming, a blended classroom-online delivery model will be encouraged to enhance the teaching-learning environment and provide flexibility to those completing the programs.

- Introduce additional four-course, online postgraduate certificate programs designed to enhance advanced skills and knowledge for career advancement opportunities.

- Develop a model for the long-term structure of graduate programming at the Institute.
- Review existing advanced diploma programs and investigate the potential for redevelopment as master's programs. Assess industry demand for additional programs.
- Develop online career advancement opportunities for all Institute graduates.
- Offer a suite of online master's programs derived from a matrix of graduate courses offered by the Marine Institute and its partners.
- Develop national and international articulation agreements and partnerships for recruitment purposes and for the joint development and delivery of graduate programs.
- Introduce research-based master's programs based upon the applied research activities of the Institute's specialized training and applied research centres.

ii) Restructure and Enhance Diploma and Degree Programs

The integrated diploma-degree model will give students the opportunity to complete diploma of technology programs which retain a technical focus important for job entry in the technology sector, concurrently with the additional requirements for a Bachelor of Technology degree, which emphasizes technology applications of the theoretical base. At the same time, multiple program entry and exit points will provide the opportunity for students to ladder their credentials gradually as they progress in their careers. The Institute will apply the integrated model to elements of existing programs at the diploma of technology level. It will also apply these principles where possible in the development of additional programs in new areas in order to offer programs that best meet the needs of students and the labour market.

- Add to the existing suite of diploma/degree programs to meet the needs of the ocean industries and the associated workforce.

- Apply, as appropriate, the four-year integrated diploma/degree model to existing diploma programs to enable the Marine Institute to offer a suite of baccalaureate degrees with an applied focus.
- Develop additional undergraduate courses in Bachelor of Maritime Studies and Bachelor of Technology programs.
- Develop additional national and international articulation agreements and partnerships for the development and delivery of undergraduate programs.
- Establish a bridging program to enable graduates of Department of National Defence (DND) technician diploma programs to access the Bachelor of Technology program.
- Rationalize course offerings where courses are common between programs.
- In collaboration with the Institute's applied research centres and industry partners, develop an element of research within diploma and degree programs, where applicable, through the addition of R & D projects and/or work terms.

iii) Increase the Number of Certificate and Technician Diploma Programs

Technical certificate and technician diploma programs will continue to offer practical technical training in a number of specialized areas at both initial job entry level and at the postgraduate level. The Institute will add to the breadth of program offerings at this level and will attempt, where possible, to provide laddering opportunities from one credential to another.

- Maintain the relationship with DND and seek to secure additional training contracts.
- Develop new technical certificate programs.
- Develop new technical certificate programs based upon combinations of short courses offered by the Institute.

iv) Increase Short Course and Industrial/Professional Development Course Offerings

Short courses and industrial/professional development training established in response to industry demand and regulatory requirements will continue to be the solid base of the Institute's programming activities.

- Enhance current short courses and industrial/professional development courses.
- Introduce new courses designed to meet the needs of industry and the workforce.
- Develop a suite of lifelong learning courses/programs.

v) Enhance Program and Course Delivery Structures

As the volume and variety of programming grows, with delivery expanding to a wider range of clients, flexibility in delivery models and structures will become essential both to accommodate the needs of students and enable the delivery of courses and programs to be conducted in the most economical manner possible.

- Develop alternative structures for the delivery of courses and programs.

C. Research

Research and development initiatives at the Marine Institute will continue to be focused on applied research and development; while recognizing that depending on the specifics of a project, R&D activities can fall anywhere along the innovation spectrum from fundamental research through to commercialization – from knowing to doing. Research and development at the Institute will continue to be related to the oceans and marine sectors and will be distinguished by its partnerships with industry and government to address specific needs. Such collaborations with industry comprise a basic tenet of research and development at the Institute. The Research and Development Strategy for the Institute must protect and enhance this strong and distinctive characteristic.

Vision: Research in 2020

Research and development at MI will be guided by the following vision:

“The Marine Institute will undertake research and development to solve practical problems of the maritime world through the application of the principles of science, technology and engineering.”

The Marine Institute will develop and sustain internationally recognized and industrially relevant applied research and development initiatives. Revenue generated by research and development at the Marine Institute will total \$12 million per year, and employ 45 people full-time. As shown in the following graphic, R & D initiatives at the Institute will continue to be related to the pursuit of ongoing basic and applied research in fisheries, aquaculture, simulation, maritime safety and ocean technology, and will expand into emerging areas that support efficiency of marine operations, sustainability of the marine environment and resources, and profitability of marine enterprises.



Strategic Initiatives

i) Establish an Administrative and Policy Support System

A strong administrative and policy support system will provide a critical base for the enhancement of research and development at the Marine Institute.

- Establish a revenue generation model that directs funds toward the maintenance and modernization of facilities and equipment to enhance applied R & D.
- Establish and maintain an inventory of provincial, national and international research and development support programs.
- Develop intellectual property protocols and agreement templates.
- Establish closer alignment between the MI and Memorial University research offices, and better accommodation of MI capabilities and operating model within the research administration framework at Memorial.

ii) Develop a Research and Development Strategic Plan

Building on the significant strategic planning ongoing within the various R & D units across the Institute, a dynamic strategic plan will be developed to guide the Institute's research and development initiatives to 2020, with an emphasis on the next 4 years.

- Undertake an environmental scan to identify research and development themes.
- Identify local, national and international target markets.
- Identify key drivers in the marine sector for the next 10 years.
- Benchmark R & D performance at MI against the performance of potential competitors nationally and internationally.
- Develop an implementation plan for the research and development strategy that is dynamic and responsive to the evolving environment.

iii) Build and Support a Collaborative Research and Development Culture

A research and development culture is essential for continuing and enhancing the Marine Institute's successful relationships with industry, government and academic partners, and exploring developing opportunities. Such a culture will encourage cross-fertilization between academia and research for faculty and students.

- Examine the present structure to permit MI faculty to engage more effectively in R & D projects to expand their professional development and equip them to bring new knowledge and insight to their students.
- Examine and revise protocols and procedures to encourage students (undergraduates and graduates) to become more involved with R & D projects during their academic terms and work terms to hone their skills with leading edge research.
- Establish stronger linkages between the various units and centres at the Marine Institute, as well as with researchers and the Office of Research at Memorial.
- Establish stronger research partnerships with foreign institutions.

iv) Revitalize Existing Research Centres

The Marine Institute's research centres are critical to the success of any research and development initiatives. Revitalizing these centres through a progressive plan of maintenance, modernization and expansion ensures that the Institute is prepared to take full advantage of any opportunities and meet any challenges.

- Establish an Institute-wide inventory of existing capability, capacity and infrastructure as a tool to support building effective research teams drawn from across the Institute, to identify and fill gaps in critical areas and to encourage the sharing of expertise and infrastructure.
- Assess the state of the existing research and development infrastructure and, as required, establish a maintenance, repair,

upgrade, calibration and replacement protocol for existing and proposed infrastructure.

- Develop an annual infrastructure assessment protocol and acquisition plan to fill gaps for critical infrastructure that will be responsive to the evolving research and development focus of the Institute.
- Develop an aggressive plan to secure investment in maintaining and expanding R & D infrastructure, including the acquisition of a multi-purpose, ice capable research and training vessel.

v) **Pursue funding for Chairs, Networks and Other Mechanisms to Support Leading Edge Basic and Applied Oceans Research**

Collectively the R & D units at the Institute generate approximately \$5.0 million annually, drawn from industry (25%), public funding sources (55%), not-for-profit sources (7%) and other sources (13%). The Marine Institute will work to improve its ability to access major sources of research funding, such as the Atlantic Innovation Fund (AIF) and Natural Sciences and Engineering Research Council (NSERC).

- Conduct research of available literature and engage with funders to identify and interpret the major provincial, national and international funding programs.
- Establish an online registry of linkages to various funding programs including the changing themes for research that might be promoted, that can be accessed and used by the R & D units.
- Examine the structural, administrative and cultural barriers that may limit access to historical funding programs and work with funding agencies and within the Institute to overcome any impediments.
- Establish protocols and procedures to support efficient and effective application and implementation procedures.
- Pursue funding for chairs, networks and other mechanisms to support leading edge basic and applied oceans research.

vi) Attract Human Resources and Obtain Physical Resources

The Marine Institute currently employs 24 full-time researchers focused primarily in the areas of Fisheries and Aquaculture (48%), Marine Science and Technology (40%) and Energy (12%) with projects and initiatives that cut across the various R & D units. Human resources are perhaps the most important element for research and development initiatives; without people there is no research and development capacity. To grow the R & D capacity and recognition of the Institute it is critical to have the physical resources and infrastructure to attract highly qualified people.

- Examine the issues and develop recommendations to meet the challenges of providing an attractive environment to engage highly qualified researchers at the Marine Institute.
- Identify potential sources of resources to support the acquisition of human and physical resources.
- Identify potential research capability within the Institute and foster the necessary professional development of such individuals.

vii) Promote the Marine Institute's Research and Development Capability and Capacity

Though there are many important and interesting research and development initiatives ongoing at the Marine Institute, these activities are often not generally known, even within the Institute. A communications plan and promotional activities will help keep members of the Marine Institute community and others informed and aware of any ongoing research and development initiatives at the Institute.

- Work with Marketing and Business Development and the R & D units to examine existing promotional tools at the Marine Institute and on that basis develop a specific research and development communications plan and a complementary suite of promotional tools.

- Establish and implement a plan for one-on-one engagement with potential clients and funders.
- Encourage publication in peer reviewed literature and identify optimum vehicles to promote the results of research, with a particular focus on the Journal of Ocean Technology as a preferred publication medium for MI and Memorial University.
- Initiate an annual marine research award for students and faculty that can be individually or jointly awarded.

viii) Foster the Development of Potential Research Partners

- The Institute will seek out potential partners for strategic R&D initiatives and through MOUs/MOAs or other means foster these relationships.

D. Outreach/ Needs of the Province

Outreach is awareness, education, research, training and development that engages the Marine Institute with external constituencies. Outreach activities generate knowledge, share resources, and apply the expertise of the Marine Institute in ways that advance the public good and the Institute's mission.

MI's outreach is, and will continue to be, provincial, national and international in scope. Though differing approaches to outreach are required to address the needs of each region, there are four themes that are common to all: accessibility; recruitment and retention; research and development; and industry response. The needs of each region are addressed through specific initiatives, such as regional and rural development provincially and projects and consultancies internationally. Through these provincial, national and international outreach initiatives MI will establish itself as the world oceans institute and become a global leader in education, training and research activities related to the world oceans economy.

Vision: Outreach/Needs of the Province in 2020

Provincially

MI will continue to meet the education, training and research needs of Newfoundland and Labrador and address the province's high need areas and sectors through expanded programs, research, collaborations and partnerships. MI will have an expanded role in rural areas facilitating regional and rural development and creating linkages between industry and communities, through initiatives such as:

- A revitalized Offshore Safety and Survival Centre in Foxtrap;
- An expanded Safety and Emergency Response Training Centre in Stephenville;
- An expanded and modernized Centre of Aquaculture and Seafood Development;
- An expanded and modernized Centre for Sustainable Aquatic Resources;
- An expanded and modernized Centre of Marine Simulation;
- An expanded School of Ocean Technology Applied Research Unit;
- The establishment of an Aboriginal Training Centre in Labrador;
- The establishment of a Centre for Marine Ecotourism;
- The acquisition of a multi-purpose, ice capable, research and training vessel.

Through its education, training and research initiatives MI will ensure Newfoundlanders and Labradorians remain competitive in the global market.

Nationally

Within Canada, MI will participate in major training, research and development initiatives with industry and institutional partners in Atlantic Canada, the Arctic, Pacific and the Great Lakes/St. Lawrence Seaway. In Atlantic Canada, the focus will be marine transportation, oil and gas, fisheries and aquaculture, green technology and ocean technology. The Aboriginal Training Centre will be the lead non-governmental secretariat for marine resource assessment and fisheries development training, technology development and research in the Arctic.

Satellite offices in Nunavut and the Yukon will support initiatives in this area. Marine transportation and maritime safety will constitute MI's primary focus in British Columbia with secondary initiatives including the fish harvesting and processing sectors and green technology. In the Great Lakes/St. Lawrence Seaway, MI will pursue opportunities for training in marine transportation and green and ocean technology. Nationally, MI will be a leader in the support of offshore oil and gas, marine and industrial safety training.

Internationally

MI's international outreach activities will be guided by a comprehensive internationalization strategy. Programs and initiatives will strategically enhance MI's international operations in the Americas, Europe, Africa, Asia and Australasia. The Institute will have increased student, faculty and staff participation in international initiatives, including 350 international students studying in our programs on our main campus, as well as through distance delivery, international brokering arrangements, community-based training, and satellite training centres/partnerships.

Capitalizing on its strong presence in Europe, MI will be involved in joint research projects and exchanges with key marine and oceans institutes. In the United States, MI will collaborate with industry and academic partners in the Atlantic and Pacific coastal states in the area of ocean technologies. With major offshore petroleum initiatives underway globally, MI will bring its offshore training expertise and unique niche in harsh environment training to oil-producing regions. MI will continue to build strong relationship with maritime training centres around the world.

MI faculty, staff, students and a team of International Associates will be involved in an expanded array of international projects and initiatives, such as CIDA development projects, business opportunities with international financial institutions and contract consultancies. Faculty, staff and student participation in opportunities such as international mobility and exchange programs and projects

will form a critical part in the strategy to internationalize MI programs and culture.

Strategic Initiatives:

i) Accessibility

The Marine Institute will expand its program delivery through distance learning and community-based training, helping to remove geographic restrictions to learning and providing Newfoundlanders and Labradorians, Canadians and foreign nationals with the opportunity for post-secondary training without leaving their homes.

- MI's programs and services will be accessible through a variety of delivery mechanisms including the use of advanced technologies and program design.
- Expand and enhance MI's community-based model of education, training, and other services in rural Newfoundland and Labrador, as well as in Canada and internationally, working where appropriate through satellite training centres and/or partnerships.
- Expansion of lifelong learning opportunities.
- Continue to expand the brokering of programs through strategic partnerships around the world.

ii) Recruitment and Retention

MI will have an enhanced focus on recruitment and retention of students from Newfoundland and Labrador and across Canada. Specific strategic initiatives in this area are addressed in the Student section of the Strategic Plan. MI will also have an expanded focus on the recruitment and retention of international students.

- Enhance and implement MI's international student recruitment strategy.
- Continue to enhance services provided to international students both on- and off-campus.

iii) Research and Development

Through industry and institutional partnerships, MI will expand its applied research and development opportunities to improve the performance of key industry sectors in Newfoundland and Labrador, Canada and the world.

- Increase collaboration with industry stakeholders to address industry knowledge gaps and emerging training requirements.
- Establish relationships with industry and marine training centres globally to further grow research and development activities.

iv) Industry Response

MI will seek partnerships within key industry sectors to deliver relevant, demand-driven training and expand its role with regard to regulatory and industry standards. MI will also establish strong collaborations with international industry partners to address global issues related to the marine sectors.

- Identify opportunities for new and grow current industry/community linkages and partnerships.
- Expand and enhance MI's capacity to quickly respond to industry needs.
- Further global alliances with strategic industry and institutional partners.

v) Aboriginal Peoples

MI will grow and strengthen its relationships with Aboriginal groups in Newfoundland and Labrador and bring culturally relevant training and applied research solutions to their communities. Building on our wealth of experience with Aboriginal groups in Newfoundland and Labrador, MI will continue to grow its relationships with Aboriginal groups nationally.

- MI will build upon existing relationships with provincial and national Aboriginal groups.
- Support services for Aboriginal clients will be enhanced and implemented.

- Cultural awareness and communications training for faculty and staff will be enhanced and made more widely available.

vi) Regional and Rural Development

MI will increase its contribution to economic and social development in rural Newfoundland and Labrador through education, applied research, fostering of linkages with industry and between industries and rural communities and through the expansion of community-based activities particularly in the North.

- Establish new and develop existing regional training centres in strategic locations within Newfoundland and Labrador.
- Expand collaborations with complementary organizations such as Regional Economic Development Boards, College of the North Atlantic, development associations, industry associations, government departments and agencies.

vii) Internationalization of MI

MI will continue to build an institutional culture which promotes global awareness.

- Develop and implement a comprehensive internationalization strategy.
- Programs at MI will continue to be enhanced to reflect the globalization of education and training.
- Cross-cultural training capability will be further enhanced and provided to increasing numbers of faculty and staff.
- Integrate international mobility/exchanges into new and existing programs.

viii) Projects and Consultancies

MI will expand its suite of international projects and initiatives into key regions

- Expand international activities by increasing the participation of MI faculty and staff and external associates.

- Continue to build relationships with Canadian federal and foreign government ministries, international financial institutions, and private industry.
- Through its expanding suite of international projects and initiatives, MI will be increasingly recognized as a global leader in the delivery of international technical assistance.

E. Conditions for Success

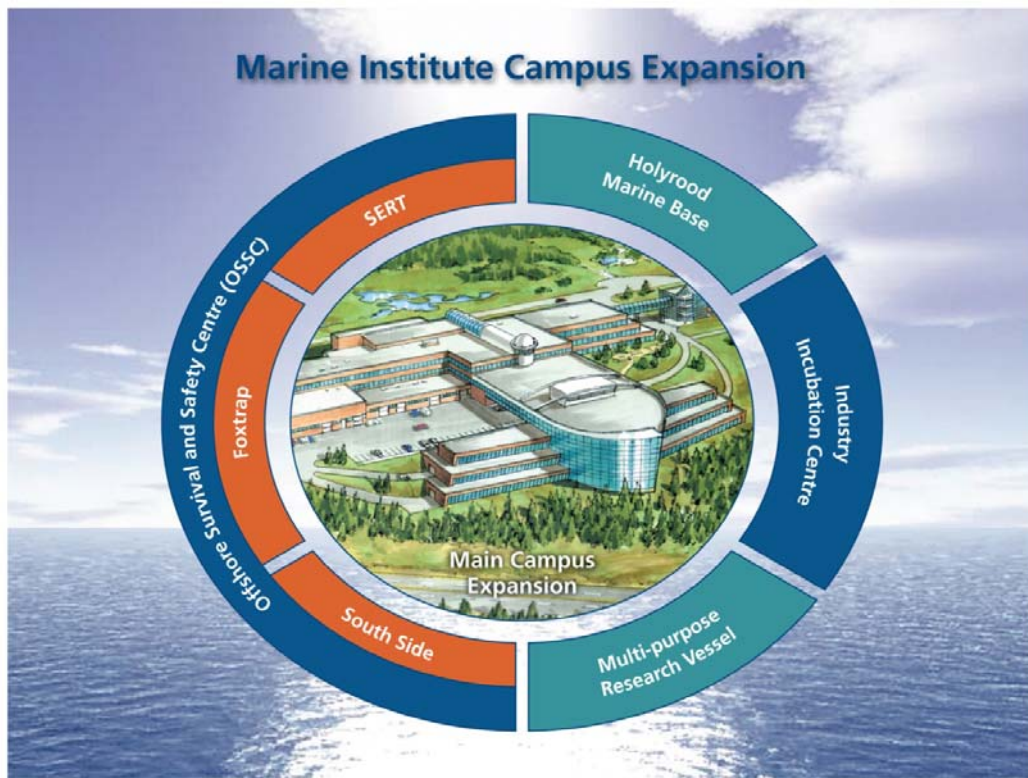
With a continued drive for excellence with respect to students, programs, research, and outreach, the Marine Institute will build its organization around its goals for the future. The Institute will focus on enhancing expertise, infrastructure, technology, processes and culture.

Vision: Conditions for Success in 2020

People – Employees at all levels of the Marine Institute will be highly skilled for their positions, committed to the organization, have a high level of job satisfaction and work in a mutually respectful environment.

Infrastructure – The Marine Institute will have the infrastructure, equipment and information and communications technology (ICT) systems in keeping with its status as a world-class oceans institute. The Institute will have additional state-of-the-art technology facilities including:

- 100,000 sq. ft. expansion of main campus on Ridge Road
- Industry incubation centre
- Expanded OSSC campus in Foxtrap
- Marine base in Holyrood
- Expanded SERTC campus in Stephenville
- Multi-purpose, ice capable, research and training vessel



Leadership – Marine Institute leaders will excel at recognising changing trends and conditions and will create the entrepreneurial environment in which the Institute’s community and programs will thrive.

Organizational Structure – The Marine Institute will offer programs and research through four schools – Fisheries, Maritime Studies, Ocean Technology and Ocean Safety. Student affairs and services will be provided through a dedicated Division of Academic and Student Services; research coordination and promotion through the Office of Research and Development and coordination of international activities through Marine Institute International. The Division of Corporate Services and External Affairs will provide administrative services, strategic planning and promotion of entrepreneurial activities.



Culture – The culture of the Marine Institute will be dynamic and collaborative, characterized by the creation and maintenance of a range of mutually beneficial alliances within Memorial University, with other educational institutions, the private sector, community groups and government agencies.

Sustainability – The Marine Institute’s activities and initiatives will demonstrate a practical respect for sustainability of the world’s resources by considering environmental, economic and social issues when decisions are made and activities and initiatives are planned and carried out.

Finance – The annual budget of the Marine Institute will exceed \$70 million of which at least 40% will be generated from non-grant sources.

Administrative Process – Efficient and effective administrative processes will be certified at ISO Quality Management Standards that will be in place in 2020.

Marketing – The Marine Institute will be promoted and recognized as a world oceans institute.

Strategic Initiatives

i) Recruit, Retain and Develop the Very Best Employees at all Levels of the Organization

The greatest strengths of the Marine Institute are the creativity and energy of the individuals who make up the Institute. The Marine Institute will ensure this strength is maximized through ongoing human resource planning and focused initiatives on recruitment of new talent, retention of existing personnel, and ongoing professional and personal development.

- Develop and maintain a comprehensive integrated human resource development program (plan).
- Develop strategies to attract outstanding candidates and recruit the best possible employees to the Marine Institute.
- Retain the employees we recruit through commitment to employee excellence and recognition.
- Develop employees to provide the best possible range and depth of services for Marine Institute students and other stakeholders.
- Provide professional development opportunities for all employees.
- Continue to build on and encourage the positive working relationship with all employee unions.
- Attract and retain highly qualified and recognized doctoral and post-doctoral research professionals.

ii) Ensure Technology, Physical Infrastructure and Information Resources are State-of-the-Art and Appropriate to Fulfil the Institute's Mandate

To maintain our position as a world class oceans institute it is essential that physical infrastructures, operational, academic and information and communications technologies (ICT) are robust, progressive and able to accommodate the evolving requirements of the Institute.

- Ensure Memorial University, through the Marine Institute, has ownership of all building infrastructure.

- Ensure building infrastructure at each Marine Institute campus is well maintained and capable of supporting expanding operational, research and programming requirements.
- Complete the expansion of the Ridge Road campus building infrastructure.
- Ensure all technologies in use at the Institute are capable of supporting the institute's programs and services and are maintained and advanced as required using current industry standards and best practices.
- Ensure that the Dr. C. R. Barrett Library is a centre of excellence dedicated to the support of world oceans research and to the preparation of practitioners of ocean technologies. The Library must offer a pre-eminent collection in the fields of ocean studies and marine industries and provide an environment for the discovery, utilization and sharing of information.

iii) Ensure an Enabling Environment of Strong and Effective Leadership, Appropriate Organizational Structure and an Open and Entrepreneurial Culture

In addition to the right people and the right tools, organizations which excel have an enabling environment which focuses the cooperative efforts of its personnel to achieve a shared vision. One of the main strengths of the Marine Institute is its enabling environment. It will take action to maintain and strengthen the environment through development of institute leadership, evolving its organizational structure and function, and nurturing its unique culture.

- Foster an enabling environment of strong and effective leadership.
- Evolve the organizational structure of the Institute as appropriate to effectively deliver services to students and other stakeholders.
- Continue to build on the unique open and entrepreneurial culture.
- Build on the collaborative culture of the Institute.

iv) **Ensure that the Marine Institute's Practices, Policies and Procedures Promote Sustainability by Reconciling Environmental, Social and Economic Demands**

The Marine Institute recognizes the importance of ensuring that its operations are sustainable and that it promotes sustainability in its programs and research initiatives. As part of Memorial University's Sustainability Declaration, the Marine Institute will minimize its adverse environmental impact while supporting the realistic needs of and aspirations of individuals and communities, and will provide a transparent account of these activities and their impacts.

- Promote the activities of the Marine Institute Sustainability Committee.
- Measure and assess the Marine Institute's environmental impacts and establish targets to reduce them.
- Integrate sustainability policies and systems into Marine Institute operations.
- Ensure that sustainability is a focus area for Marine Institute programs and research initiatives.
- Incorporate sustainability technology and practices into new facility construction and major renovations to existing facilities.

v) **Attain the Optimum Level of Financial Resources to Sustain Growth and Ensure Long-term Viability**

Sufficient financial resources underpin the success of any organization. This requires not only aggressive pursuit of external client-based funding through contractual activity, but concerted and sustained efforts to work with Memorial and both provincial and federal governments to develop the optimum level of financial support. This will ensure that the Institute not only remains viable, but grows and evolves to meet the needs of those it serves.

- Develop a long term financial plan.

- Develop strategies to position the Marine Institute to attract investment from both the public (federal and provincial governments) and private sector.
- Establish a development (fundraising) program.
- Ensure strong financial stewardship in an increasingly complex operating environment.

vi) Embrace Change in Administrative Processes to Ensure Efficient and Effective Service Levels

The Institute will adopt and evolve administrative processes to ensure continued improvement in quality, efficiency and customer and employee satisfaction.

- Continuous assessment and self-improvement.
- Integration of new technology and systems.
- Enhancement of quality management system.

vii) Effectively Market the Marine Institute

To achieve the vision, it is essential that the Marine Institute be perceived as a world oceans institute among its stakeholders at the local, national and international level. Marketing strategies are vital to positioning the Marine Institute as leading the growth of the ocean technology sector in this province and as a major player on the world stage for education, training, innovation and research for the oceans industries.

- Develop and implement a comprehensive, sustainable and measurable marketing plan.
- Understand and respond to the competitive environment based on up-to-date market intelligence.
- Identify and pursue new and effective means of marketing the Institute at the local, national and international level.