

September 29, 2017


Ms. Sandra Barnes
Clerk, House of Assembly
House of Assembly

Dear Ms. Barnes:

I wish to table the 2016-17 Annual Report for Memorial University. This report is being tabled in accordance with the Transparency and Accountability Act. You should note however, that the report does not contain audited financial statements of the entity as required by legislation, as they are not yet finalized. Once the statements are finalized, they will be forwarded to you for tabling.

I trust this is satisfactory.

Sincerely,



HON. AL HAWKINS, MHA
District of Grand Falls-Windsor-Buchans
Minister

Attachment

cc: Ms. Debbie Dunphy, Assistant Deputy Minister



MEMORIAL UNIVERSITY OF NEWFOUNDLAND

ANNUAL REPORT

2016-2017



Board of Regents

St. John's, NL Canada A1C 5S7
Tel: 709 864 8281
regents@mun.ca www.mun.ca/regents

September 20, 2017

Honorable Al Hawkins, MHA
Minister of Advanced Education, Skills and Labour
Government of Newfoundland and Labrador
Confederation Building
St. John's, NL A1B 4J6

Dear Minister Hawkins:

In accordance with the Board of Regents' responsibilities under the *Transparency and Accountability Act*, I present the 2016-17 annual report for Memorial University of Newfoundland.

The activities in this report coincide with initiatives outlined in the document Memorial University of Newfoundland Strategic Plan, April 1, 2014 - March 31, 2017 that was tabled in the House of Assembly.

The main strategic issues include:

- Teaching and learning
- Research, scholarship and creative activity
- Public engagement
- Enabling success

This report is the last in the three year cycle and therefore covers the university's annual objectives for April 1, 2016 to March 31, 2017 and summarizes the performance results for the goals established in the 2014-17 plan. My signature below is indicative of the Board of Regents' accountability for the results reported.

Sincerely yours,

A handwritten signature in black ink that reads "Iris Petten".

Iris Petten
Chair, Board of Regents

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INSTITUTIONAL OVERVIEW

Memorial University was established in 1925 as Memorial College and was dedicated to those who served Newfoundland in World War I. It opened in St. John's with an initial enrolment of 55 students and a full-time teaching staff of six. Following Confederation in 1949, the institution was granted university status by the first Provincial Government of Newfoundland and Labrador. The university began with a simple purpose of providing university education and its benefits to the people of the province. From these humble beginnings, Memorial University has developed into a major comprehensive university that comprises four campuses and the Labrador Institute. It has a total enrolment of more than 18,000 students, making it one of the largest educational institutions in eastern Canada.

As Newfoundland and Labrador's only university, Memorial has a special obligation to the people of this province. The university strives to have national and global impact, while fulfilling its social mandate to provide access to university education for the people of the province and to contribute to the social, cultural, scientific, and economic development of Newfoundland and Labrador and beyond.

Memorial University Campuses

St. John's Campus: The St. John's campus is Memorial's largest with more than 40 buildings that house the teaching and research facilities of six faculties and six schools. The campus offers undergraduate, graduate and professional programs in a comprehensive range of disciplines. Research facilities support the diversity of disciplines and reflect the university's mid-North Atlantic location and unique cultural heritage. The campus also houses central administrative services for the entire system and the Queen Elizabeth II Library, which has one of the most notable collections in Atlantic Canada.

Grenfell Campus: Sir Wilfred Grenfell College was established in Corner Brook in 1975 to address the educational needs of the west coast of the province. In 2010 the College was restructured to become Grenfell campus. Initially created to provide students with an opportunity to complete the first two years of their program on the west coast, the campus has evolved to offer a host of undergraduate and graduate degree programs in arts, sciences, environmental studies and fine arts, among others.

Marine Institute Campus: The Marine Institute (MI) was established as the College of Fisheries, Navigation, Marine Engineering and Electronics in 1964 and merged with Memorial University in 1992. The Institute's main campus is located in St. John's, with facilities in: Foxtrap, Holyrood, Stephenville, and Lewisporte. Having one of the most advanced and comprehensive collections of marine research and educational facilities, MI is recognized globally as a leader in marine education and applied research. MI offers a variety of graduate, undergraduate, diploma, and certificate programs in areas related to fisheries and oceans along with a vast array of industrial response courses and other outreach activities.

Harlow Campus: Memorial University's Harlow Campus is located abroad in Old Harlow, Essex, United Kingdom. A number of the academic units from Memorial's campuses offer programs and credit courses at the Harlow Campus. The campus also houses a limited number of interns from Social Work, Pharmacy, Business, and Engineering programs. The campus is also available as a base for faculty members and graduate students conducting research or further study in the United Kingdom.

Labrador Institute: In addition to the four campuses noted above, Memorial University also maintains an important presence in Labrador through the Labrador Institute. Established in 1977, the Labrador Institute is mandated to stimulate, coordinate, and support major university projects and programs and to expand the Labrador knowledge base. The goal of the Labrador Institute is to facilitate the educational aspirations, research requirements, and the socio-cultural well-being of the people of Labrador. It has offices in three locations: Happy Valley-Goose Bay; Labrador City; and North West River. All offices are co-located with College of the North Atlantic (CNA).

The *Memorial University Act* specifies the role, responsibilities, structure and other governance and administrative aspects of the university. The university is governed by a Board of Regents, including: ex-officio, members appointed by the Lieutenant-Governor in Council, members elected by Memorial University Alumni Association, and student members appointed by the Lieutenant-Governor in Council. Membership of the Board of Regents as of April 3, 2017 are provided in the following table.

Ex-Officio	Appointed by Lieutenant-Governor in Council	Elected by Memorial University Alumni Association	Students Appointed by Lieutenant-Governor in Council
Dr. Susan Dyer Knight, Chancellor	Iris Petten, Chair, Avalon	Colleen Galgay-Johnston	Jaime Giraldo
Dr. Gary Kachanoski, President and Vice-Chancellor	Margaret Allan, Avalon Michelle Baikie, Labrador Glenn Barnes, Avalon Steven Belanger, Avalon	Katherine Hickey John Hogan Kimberly Keating	Zachary Green Rebecca Stuckey
Dr. Noreen Golfman, Provost and Vice-President (Academic)	Robert Bishop, Avalon Mark Bradbury, Avalon Joe Dunford, Avalon Karen McCarthy, Avalon Max Rice, Central Trevor Stagg, West Eleanor Swanson, Avalon	Denis Mahoney George Tucker	

The legislation also defines the governance structure of the institution and the powers and responsibilities vested in it. The governance system is bicameral, having two governing bodies: the Board of Regents and Senate. The Board of Regents is generally charged with the “management, administration and control of the property, revenue, business and affairs of the university.” The Senate has “general charge of all matters of an academic character.”

Subsection 36(2) of the *Act* mandates that the university cannot incur liability or make an expenditure, without the consent of the Lieutenant-Governor in Council, which exceeds one-quarter of one per cent of the total of a grant made to the university by the Legislature and estimated revenue of the university from other sources for the current

year. Section 38.1 of the *Act* is intended to preserve the autonomy of the institution, ensuring that the merits of decisions or actions of the Board or the Senate taken in contemplation of work customarily associated with a university is not questioned by the Auditor General and stating that the university is not an agency of the Crown for the purpose of the Auditor General Act, or any other purpose. The university is subject to the *Transparency and Accountability Act*, though there are sections in the *Act* intended to protect the autonomy of the institution.

Information about the mandate, lines of business and mission of the university can be found in the [Strategic Plan for 2014-17](#).

Key Statistics

Memorial's enrolment for the first year after receiving university status stood at only 307 students. Today, the university is home to 18,010 undergraduate and graduate students. While this status has been achieved in large measure by educating and serving the people of Newfoundland and Labrador, the university now enrolls a more diverse population of students from local, national and international communities. The table below provides detailed enrollment information for Fall 2016 by provincial campus, program level, gender and enrollment status.

	Undergraduate/Diploma			Graduate			Total
	Female	Male	Total	Female	Male	Total	
St. John's Campus+	6,830	4,170	11,000	1,797	1,718	3,515	14,515
<i>Full-time</i>	6,350	3,947	10,297	1,056	1,341	2,397	12,694
<i>Part-time</i>	480	223	703	741	377	1,118	1,821
Grenfell Campus^	554	667	1221	33	20	53	1,274
<i>Full-time</i>	531	638	1169	32	19	51	1,220
<i>Part-time</i>	23	29	52	1	1	2	54
Marine Institute Campus~	236	695	931	59	132	191	1,122
<i>Full-time</i>	162	484	646	19	36	55	701
<i>Part-time</i>	74	211	285	40	96	136	421
Distance	624	475	1099	0	0	0	1,099
<i>Full-time</i>	132	88	220	0	0	0	220
<i>Part-time</i>	492	387	879	0	0	0	879
Total*	8,244	6,007	14,251	1,889	1,870	3,759	18,010

+ Includes Centre for Nursing Studies

^ Includes Western Regional School of Nursing

~ Excludes Marine Institute industrial response courses. The total enrolment in these courses was 8,288 and the revenue generated from them subsidizes the administrative and faculty costs of the Institute.

* Excludes 262 post graduate medicine students

- Students taking courses at Harlow and the Labrador Institute are counted on the campus where they are registered for their program.

As of March 2017, Memorial employed approximately 3,900 faculty and staff across its three campuses in the province, as shown in the table below.

	Faculty*			Staff			Total
	Female	Male	Total	Female	Male	Total	
St. John's Campus	525	682	1,207	1,227	794	2,021	3,228
<i>Full-time</i>	459	602	1,061	1,141	765	1,906	2,967
<i>Part-time</i>	66	80	146	86	29	115	261
Grenfell Campus	49	59	108	106	66	172	280
<i>Full-time</i>	42	57	99	104	63	167	266
<i>Part-time</i>	7	2	9	2	3	5	14
Marine Institute Campus	48	166	214	98	83	181	395
<i>Full-time</i>	44	156	200	97	82	179	379
<i>Part-time</i>	4	10	14	1	1	2	16
Total	622	907	1,529	1,431	943	2,374	3,903

* – Harlow and Labrador Institute staff are included in the St. John's Campus numbers.

Memorial University's fiscal year is April 1 to March 31. Financial Statements are prepared by Financial and Administrative Services staff and audited by external auditor, Ernst and Young. In 2016-17, the total operating budget for the university (including Faculty of Medicine) was \$431.1 million and the capital budget was \$3.2 million. Revenues include: grants from the Provincial Government of \$376.2 million; tuition fees of \$48 million, a grant from the Federal Government of \$4.1 million; and smaller sources of income including endowments and investments.

Highlights and Partnerships

In 2016-17, there were a number of significant highlights and accomplishments at Memorial including:

- On June 23, 2016, Memorial received \$125 million from the Federal and Provincial Governments to help fund the new Core Science Facility on the St. John's campus. A \$325 million project, the teaching and research space will be occupied primarily by the Departments of Biochemistry, Biology and Chemistry in the Faculty of Science, the Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science and labs from the Core Research Equipment and Instrument Training (CREAIT) Network.
- The Federal Government announced nearly \$100 million in funding on Tuesday, September 6, for the creation of the Ocean Frontier Institute (OFI), a historic partnership between Dalhousie University, Memorial University of Newfoundland and the University of Prince Edward Island (UPEI). The OFI will focus on solutions for safe and sustainable ocean development. Memorial University researchers and graduate students from multiple disciplines will participate in some of the world's most ambitious research aimed at unlocking the secrets of the North Atlantic. The Oceans Frontier Institute will be housed in the new Core Science Facility.
- Memorial awarded 3,325 degrees in its Spring and Fall convocations, including 2,399 bachelor's degrees, 847 master's degrees and 79 PhDs.
- Graduate enrolment for the Fall 2016 semester increased to an all-time high of 3,759, increasing from 3,607 in Fall 2015 and up over 60 per cent since 2007.
- Sponsored research funding total for 2016-17 is just over \$100 million.
- International enrolment is also at an all-time high, reaching 2,474 in Fall 2016, compared to 978 in 2007 for an increase of nearly 153 per cent.
- Three major funding announcements were made by the Federal Government in support of Memorial's infrastructure:
 - \$3 million was announced for the Marine Institute's ocean technology base in Holyrood. The money will go towards making the MI base a world-class facility to support the applied research, training and testing requirements of the province's growing ocean technology industry.
 - \$14.4 million was provided for a new animal research building. The money will go towards replacing two of Memorial's current research care facilities.

- \$4.1 million was awarded to support Memorial's re-furbishing of the Battery site as a provincial center for innovation and public engagement.
- On March 2, 2017, the Fisheries and Marine Institute introduced new graduate degree programs in fisheries science. The school of fisheries will deliver three program options: Master of Science in Fisheries Science (Fisheries Science and Technology); Master of Science in Fisheries Science (Stock Assessment); and a Doctor of Philosophy in Fisheries Science. This marks the first time the Marine Institute has offered a doctoral program in its 53 year history.
- In March 2017, the Council on Higher Education held its first meeting, bringing together the Provincial Government, College of the North Atlantic and Memorial in a collaborative effort to shape the future of the public post-secondary education system.

REPORT ON STRATEGIC ISSUES

Four priority issues were identified in the 2014-17 Strategic Plan: (1) teaching and learning; (2) research, scholarship and creative activity; (3) public engagement; and (4) enabling success. The pages that follow provide a report on the objectives for 2016-17, as well as the goals for the three year period covered by the plan. For further details, readers are encouraged to reference the corresponding objectives sections from the *Memorial University Annual Reports 2014-2015 and 2015-2016*.

The university is a complex, decentralized organization with a multitude of academic, administrative and support units. As a comprehensive university, it offers a wide variety of educational programs, conducts research in a vast range of subject areas, and is involved in many initiatives that serve the needs of the province and beyond. The scope and magnitude of its operations makes the preparation of these reports challenging. Efforts have been made to produce a document that balances length and inclusiveness.

ISSUE 1: TEACHING AND LEARNING

Guided by the Teaching and Learning Framework (TLF), Memorial strives to foster a teaching and learning community that is engaging, supportive, committed to discovery, outcomes-oriented, inclusive and responsive. The ultimate goal is an environment that connects learners and educators in knowledge exchange and generation, for the advancement of society. All educators and learners at Memorial are encouraged to use the principles of the Teaching and Learning Community as the foundation for their work. The community works to ensure that its approach to teaching and learning supports the desired qualities of Memorial's graduates as set out in the framework.

[The TLF Strategic Plan](#) 2014-17, outlined two major goals for the university:

1. Alignment and coordination of teaching and learning programs, services and facilities.
2. Promotion and development of connections among educators, students, staff and the broader community.

The plan also guided the deployment of an annual allocation of \$1.2 million to the TLF Fund. The purpose of the fund is to support university activities that foster the development of the desired qualities of graduates; contribute to the enhancement of the teaching and learning community; and/or address one or more of the recommendations of the TLF.

Objective 2016-2017: By March 31, 2017, Memorial University will have implemented activities to strengthen teaching and learning.

Measure: Implemented activities to strengthen teaching and learning.

INDICATOR	2016-17 RESULTS
1. Enhanced alignment and coordination of programs, services and facilities for teaching and learning.	In 2016-17, Memorial enhanced the alignment and coordination of programs, services and facilities for teaching and learning. Selected examples include: <ul style="list-style-type: none">• In its second year of a two-year term, the Chairs in Teaching and Learning (CTLs) program continued to develop an organized effort to address the priorities of the TLF, advancing the scholarship of teaching and learning; issues of cultural diversity and vulnerable student populations; and learning techniques and technologies. The 13 CTLs led and supported conferences, seminars, discussion forums, research projects, technologies development and other initiatives within academic units. The CTLs formally collaborated, coordinated by the Manager of the TLF, on interdisciplinary initiatives and projects to improve the

	<p>broader institutional practice and reputation of teaching and learning at Memorial.</p> <ul style="list-style-type: none"> • A total of 28 TLF funded projects are underway to research and test new practices, strategies and technologies in teaching and learning. Of the 28 projects, 14 are expected to be completed in 2017 and will be evaluated for further implementation. • The Centre for Innovation in Teaching and Learning (CITL) enhanced its unique collection of services to support teaching and learning at Memorial: <ul style="list-style-type: none"> ▪ Core educational technologies were enhanced for on-campus courses and online course delivery, including technologies such as D2L (learning management system), Online Rooms (virtual classroom tool), ePortfolio (for collecting/organizing electronic artifacts), and lecture/web capture (record and share lectures), among others. As an example, while D2L is used to deliver all online offerings, in the previous academic year, over 50 per cent of on-campus courses also actively used D2L to supplement on-campus instruction. In that same time period, the number of technology-enabled course sites grew to 2,966, an increase of 22.7 per cent since 2012-13. ▪ CITL partnered with individual faculties and schools to embed staff with specialized skills that help to meet the teaching and learning needs within the respective academic units. ▪ CITL established the Teaching and Learning Exchange (TLX) to provide a collaborative classroom space where educators and instructional staff can enhance their teaching practice and discover best practices for integrating educational technologies into their courses. Educators may attend scheduled workshops and drop-in clinics, participate in individual consultations with CITL staff, or drop in as needed to address particular teaching challenges or access specific content development software and other educational technologies that may help in the development of content for courses or presentations. ▪ Two new CITL educator development programs were implemented: 1) Program in Graduate Student Supervision (for Faculty) is a nine-week program with four synchronous sessions offered three to four times per academic year to 15 participants. 2) Teaching Assistant Training Program provides a one-day, face-to-face
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	<p>intensive workshop to graduate student teaching assistants to approximately 40 participants.</p> <ul style="list-style-type: none"> • The Office of the Chief Information Officer (CIO), CITL and Memorial Libraries partnered to initiate an IT Student Services Advisory Committee that will provide student perspectives on the technology needs of Memorial’s student body. • The Office of the CIO, CITL and other academic support services partnered on the development and implementation of an enterprise-wide Identity and Access Management (IAM) system. The system provides users with a single ID to access all systems of Memorial. • The Office of the CIO initiated a student lifecycle project to enable a student-focused approach for process (re)design and system development to provide a starting point for developing great services to students and a framework for a common understanding and approach. Objectives include: map and examine existing processes, process owners and supporting systems throughout the student lifecycle to understand intersections and identify opportunities for improvement; create an integrated, student-centric approach for process design and system development; and ultimately, improve the student experience. • The Writing Centre received funding under the TLF to systematically attend to reading and writing challenges of today’s students. • Research on graduate degree level learning outcomes is being concluded and prepared for university consultations. As a pilot, the curriculum of one or two graduate programs will be further assessed relative to desired learning outcomes to ensure relevance of program requirements and that program goals are being met. • The First Year Success Program prepared: a white paper on <i>Making Memorial Student Ready</i> which includes reflections on first year success as the work of a community; and a document of recommendations for programming for student transition. These documents support the future development of transitional programming at Memorial. • In December 2016, the Provost appointed a teaching and learning review committee with a mandate to: 1) assess the outcomes of Memorial’s Teaching and Learning Framework (2011-2016); 2) determine, through consultations on all of Memorial’s campuses, where the current teaching and learning environment was strong and where it could be
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improved; and 3) make recommendations for a renewed Framework, including new and integrated approaches to program delivery, curriculum development and student services and support. The Teaching and Learning Framework Strategic Plan 2014-2017, which grew out of the original framework, expired March 31, 2017, presenting an opportunity to look back on the success and strengths of the first framework, build upon them, and move forward with a renewed vision for teaching and learning at Memorial that reflects the current and diverse academic needs of students, faculty and staff. The review committee submitted a draft report on its work to the Provost on March 31st and it is being reviewed by the university community for feedback.

Actions were also taken to enhance the teaching and learning environment that were campus-specific. Examples include:

Grenfell Campus

- Offered a pilot program, the Global Learning Village, in which international and domestic students were paired together in residence rooms. The goal was to implement a core value of inclusion and diversity within the campus. Approximately 60 students participated.
- Student Services received the CACUSS (Canadian Association of College and University Student Services) Innovation Award for Steps to Success, an innovative program designed to support students in their second semester. This is a national award, and this is the second time in three years that the campus has received this award.
- Health Services expanded, offering physician clinics every week. This was complementing services in physiotherapy, chiropractic sessions, and massage sessions. Counselling services are also part of this unit. Total student use increased by 925 per cent from the previous year.
- Made “Lecture Capture” possible in one classroom by utilizing the Teaching and Learning Fund. Students have found it useful for pre-test review, for going over complex material and taking notes, and in the event of sickness, from missed classes. In addition, Lecture Capture is ideal for many students with learning disabilities.
- Provided Teaching and Learning Fund grants for faculty and staff to undertake teaching projects that would otherwise not be possible. The grants have included projects in experiential learning, flipped learning, and other classroom techniques.

	<p><i>Marine Institute:</i></p> <ul style="list-style-type: none"> • Developed new research-based PhD and masters programs in fisheries science. Students will conduct cutting-edge research and complete courses in programming, statistics, and study design. The launch of the fisheries science programs marks the first time the Marine Institute has offered a doctoral program in its 53 year history. • Carried out an Academic Unit Planning (AUP) process in the School of Maritime Studies. AUP is carried out by units and programs under the authority of the Academic Unit Planning Committee (AUPC) of Senate. AUP provides an opportunity for the unit or program to work collegially to sustain successful activities and introduce change where necessary. <p><i>The Labrador Institute:</i></p> <ul style="list-style-type: none"> • Delivered the second year of Inuit Bachelor of Education program in partnerships with the Faculty of Education and Nunatsiavut Government. • Continued with Labrador-based masters of Education cohort, delivered to teachers currently working in Labrador. • Offered courses in archaeology, folklore and linguistics in partnership with Faculty of Humanities and Social Sciences. • Supervised graduate students in marine ecology, earth sciences, soil science, public health, epidemiology, environmental policy, geography, and archaeology, at Memorial University, University of Guelph, and McGill University. • Provided employment and training for summer students in soil science, library services, and administration. • Developed and delivered directed reading course for PhD student. • Developed archaeology field school to be delivered in North West River in summer 2017. • Developed and delivered a land-based education course.
<p>2. Enhanced connections among educators, students, staff and the broader community to support teaching</p>	<p>In 2016-17, there were a number of initiatives to enhance the connections in support of teaching and learning:</p> <ul style="list-style-type: none"> • To fulfill its mandate, the teaching and learning review committee appointed by the Provost held university-wide consultations bringing together a broad range of students, faculty, instructors, and staff to share their knowledge, experience, needs, opinions and concerns about teaching and learning at Memorial. Consultations were held for the St. John's, Grenfell and Marine Institute Campuses. The Labrador Institute also participated.

<p>and learning.</p>	<ul style="list-style-type: none"> • Plans for the first Teaching and Learning Day to be held in 2017 were initiated by the CTLs in consultation with the Manager of the TLF. The day is planned for educators to explore individual and shared experiences in teaching and learning at Memorial through reflections, conversations and activities centered on ideas of transformational learning and community building. • New integrated learning programs were developed to offer students a more holistic experience that contributes to civic engagement and community development. The programs integrate teaching, research, and community involvement consisting of cross-discipline faculty members, university staff and community partners. A feasibility study and implementation strategy is underway for a program called Semester in Collaborative Action on the St. John’s campus. A similar program called City Studio is being implemented at the Grenfell campus. • Student proposals were received for the second competition for the student award for self-directed learning. Projects created and undertaken by students engaged educator and community support. • CTLs and the TLF Manager, in collaboration with CITL, continued to coordinate approaches to information/idea exchange within and across disciplines and campuses, including: multi-campus guest speaker presentations, webcast to all campuses, student and educator discussion forums, focus groups, surveys etc.; and regular sessions of exchange and community development among the CTLs. <p>Campus-specific Initiatives implemented include:</p> <p><i>Grenfell Campus</i></p> <ul style="list-style-type: none"> • Successfully rolled out the OPEN Grenfell project. The name and acronym, OPEN, represents the goals of the initiative, which are to overcome, probe, enlighten, and negotiate ideological differences and potential areas of dissent, while also fostering inclusiveness, student retention and cultural enlightenment. Organizers hosted a variety of public events, reaching out to the Grenfell community in pursuit of a reflexive dialogue about diverse cultural experiences. • Supported instructional development and promoted teaching excellence at Grenfell Campus, with a weekly instructional development seminar, two 2-part teaching PD sessions (December and April), a symposium on innovation in teaching (March), and a plan to offer a PD session on internationalization of the classroom (next September).
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	<ul style="list-style-type: none"> • Identified a Chair in Teaching and Learning, with a primary goal of contributing to excellence in teaching and learning through initiatives designed to engage students, faculty, and staff in critical conversations about diversity, culture, access and inclusion in the university community. The Chair, and the committee that was associated with it, sponsored campus conversation events, artist performances, keynote talks with visiting academics and activists, panels and a poetry slam. • Led the university library system in the implementation of a new and very much improved course resource system. This new software makes it easier for faculty to create lists and to embed those lists in D2L shells and it provides students with more online access to course material. In the Winter 2017 semester approximately 1200 items were put on reserve at the Ferriss Hodgett Library (compared to 368 in Winter 2016) and 85 per cent of these items were available electronically. In May 2017, this new system was implemented university wide. <p><i>Marine Institute</i></p> <ul style="list-style-type: none"> • Continued its efforts to connect to the broader community, particularly through youth engagement initiatives and community events, through the Office of Student Recruitment’s Youth and the Oceans conferences, and high school student competitions. • Hosted its Career Synergy Series throughout 2016-17. The various events provide learning and networking opportunities for students, employers and alumni. Fifteen companies visited the Institute between February and April 2017 to present to students and conduct interviews for work terms (over 110 student interviews were conducted). <p><i>The Labrador Institute</i></p> <ul style="list-style-type: none"> • Launched the first International Indigenous Internship. The intern worked in Finland, Norway and Labrador. • Hosted Nunatsiavut Government Inuttitut training modules. • Provided educational resources through library services, committee participation and community presentations. • Advised on learning opportunities related to community-based and community-led research, Indigenous-led research, partnerships and relationships-building, and reconciliation in higher education.
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The initiatives outlined above demonstrate that Memorial University achieved its objective to have implemented activities to strengthen its teaching and learning in 2016-17. The section below provides a summary of initiatives undertaken to achieve the 2014-2017 plan goal to have strengthened its teaching and learning.

GOAL 1: By March 31, 2017, Memorial University will have strengthened its teaching and learning.

Measure: Strengthened teaching and learning.

INDICATOR	2014-17 RESULTS
<p>1. Strengthened programs, services and facilities to support teaching and learning.</p>	<p>Memorial has strengthened programs, services and facilities to support teaching and learning mainly through: the renaming and refocusing of CITL; the organization of CTLs; the re-alignment of technologies and systems; and the funding of pilot projects to explore new approaches to teaching and learning. These new entities and initiatives have served to facilitate greater engagement of students, educators, staff and the community through new and improved programs, projects, and discussion forums and events. This has been demonstrated by uptake for activities undertaken by the CTLs, engagement of students in self-directed learning, and participation in the growing suite of Educator Development programs of CITL.</p>
<p>2. Facilitated engagement of students, educators, staff and the community to support teaching and learning.</p>	<p>From 2014-2017, great advances have been made to refine and build upon the teaching and learning experience for faculty, instructors, students and staff in all corners of the university. There is no doubt the university has made advancements towards strategic enhancement of teaching and learning. The initiatives developed over the period have served to create a pan-university interest in improving the overall teaching and learning environment. For example, over the last three years, the Marine Institute invested in the development and enhancement of campus space to promote greater student engagement. Furthermore, Memorial introduced new approaches (such as presentations, discussion forums and retreats) to promote information exchange within and across disciplines and campuses. Since 2014-15, a number of retreats allowed individuals from the university community to explore challenges and potential strategies to move forward on a number of issues. At this juncture, the university has taken the opportunity to look back on the success and strengths of the last three years, build upon them, and move forward. The university-wide consultations held by the teaching and learning</p>

	review committee will lay the foundation for a renewed vision for teaching and learning at Memorial that reflects the current and diverse academic needs of students, faculty and staff.
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ISSUE 2: RESEARCH, SCHOLARSHIP AND CREATIVE ACTIVITY

Research and the production of scholarly knowledge enriches the student experience, enhances teaching and learning, builds reputation, supports the growth of faculty and stimulates meaningful partnerships. In 2011, Memorial established the Research Strategy Framework to support the university’s vision to “be one of the most distinguished public universities in Canada and beyond”.

The [Strategic Research Intensity Plan 2014-2020](#) provided additional guidance regarding the university’s approach to research. In the words of Dr. Richard Marceau, who was responsible for its development, the plan “reflects a synergistic and integrated approach for strengthening all aspects of research at Memorial University, including scholarship and creative activities, as well as the translation of knowledge into products, practices and policies, and other forms of community engagement.” The university has pursued the major recommendations of this plan with a good measure of success and has laid the groundwork for even greater things to come.

Objective 2016-2017: March 31, 2017, Memorial University will have implemented activities to enhance its creation and profile of research and scholarly knowledge.

Measure: Implemented activities to enhance creation and profile of research and scholarly knowledge.

INDICATOR	2016-17 RESULTS
<p>1. Enhanced supports and services to individuals and groups engaged in research and creation of scholarly knowledge.</p>	<p>During 2016-17, Memorial continued to enhance supports and services to individuals and groups engaged in research:</p> <ul style="list-style-type: none"> • In April 2017, Research Grant and Contract Services, a unit within the Office of the Vice-President (Research), launched a new searchable database allowing researchers to easily find details on internal and external funding opportunities. Undergraduate and graduate students, faculty, researchers, administrators, staff and post-doctoral fellows can access the database and subscribe to a new, weekly email listserv to receive highlighted funding opportunities. • In March 2017, the Atlantic Facilities and Research Equipment Database (AFRED), open-access, searchable, online database, was officially launched to match researchers with available, specialized research infrastructure at Memorial University and other institutions throughout Atlantic Canada. It provides industry, academic, non-profit and government researchers, as well as entrepreneurs, with free access to a growing database of nearly 400 pieces of research

	<p>equipment available in 80 facilities at 19 institutions. AFRED is led by Science Atlantic, a non-profit collaborative association of 16 Atlantic Canadian post-secondary and research institutions, including Memorial University. The Federal Government invested \$198,474 in AFRED through the Atlantic Canada Opportunities Agency's business development program and the Natural Sciences and Engineering Research Council.</p> <ul style="list-style-type: none"> • Memorial launched a review of its current Intellectual Property (IP) Policy and solicited feedback from the university community and external stakeholders on a proposed draft policy. The draft IP policy, as well as draft procedures, supporting documents and additional information were available online for review and feedback. The policy and related documents will be revised based on input received during the consultation period and the final policy will go to Senate and the Board of Regents for approval. • The Memorial Researcher Portal, which is a web-based tool for research data management, was updated to enhance its usability for a growing number of users. The software, which launched last December, is currently aimed at researchers requiring ethics certifications. Since its launch, the number of people using the portal has increased from about 450 in March 2016 to more than 1,000. The portal provides researchers with a one-stop, online approvals process to the boards. • In July 2016, the Technology Transfer and Commercialization Office (TTCO) was created to support industrial liaison, technology transfer and commercialization at the university. In January 2017, Springboard Atlantic Inc., a network of Atlantic Canadian universities and colleges that includes Memorial, received more than \$9.2 million in federal funding to turn promising research into new products and services. This three-year funding commitment was made under the Atlantic Canada Opportunities Agency's Atlantic Innovation Fund to support 30 commercialization officers in the Atlantic region. Memorial's portion of the funds supports four officers within TTCO. • Grenfell Campus conducted and disseminated the results of a functional review of the Research Office at Grenfell, with 29 recommendations for action.
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	<ul style="list-style-type: none"> • The Labrador Institute made improvements to Labrador Institute Research Station to enhance usability, productivity, and scientific advancements. They also hosted or participated in a variety of meetings to enhance the research and scholarly activity at the Labrador Institute and in Labrador, including working with delegations to enhance partnerships, bringing together researchers with new networks or opportunities, and regular community meetings. • Marine Institute: <ul style="list-style-type: none"> ▪ Developed a draft three year strategic research plan aimed at continuing to support and grow research. ▪ Worked to develop a new research website to provide improved support to internal and external researchers as well as highlighting research capabilities to external partners (ongoing). ▪ Secured a candidate for the Natural Sciences and Engineering Research Council of Canada (NSERC) Tier II Canada Research Chair in Ocean Mapping.
<p>2. Celebrated achievements in research and the creation of scholarly knowledge.</p>	<p>Memorial continued to promote and celebrate extraordinary research and its potential impacts on the wider community. Some of the channels that were used to highlight impactful research stories included:</p> <ul style="list-style-type: none"> • During the Summer of 2016, a series of research profiles were published in <i>The Telegram</i> and on its website. This series profiled the important work and impact of Memorial researchers from a variety of research disciplines. • In December 2016, the Research Report 2014-16, highlighting the impact of Memorial’s research that is being felt throughout our province and around the world, was issued online. With the launch of the <i>Gazette</i> news website in January of this year, enhanced online communications became possible. Each of the report’s main stories were shared on the Gazette every two weeks from March to September. Profiles were also shared on social media and videos featuring researchers were uploaded to Memorial’s YouTube channel. The report featured researchers from Grenfell Campus; the Marine Institute; the Labrador Institute; the Faculties of Business Administration, Education, Engineering and Applied Science, Humanities and Social Sciences; Medicine; and Science; and the schools of Human Kinetics and Recreation, Music, Nursing, Pharmacy and Social Work.

	<ul style="list-style-type: none"> • The Associate Vice-President Research at Grenfell Campus shared faculty research achievements and interests through a monthly “Field Notes” newsletter, which is widely distributed. • The Labrador Institute hosted and co-organized the first biennial Labrador Research Forum, in partnership with the Innu Nation, Nunatsiavut Government, NunatuKavut Community Corporation, the Town of Happy Valley-Goose Bay, the Torngat Secretariat, and the Department of Fisheries and Oceans. Brought together 170 researchers, academics, government representatives, community members, and health professionals to highlight and celebrate research in Labrador. <p>Memorial University is committed to celebrating the research achievements of faculty members and students. Below are some of Memorial’s most prestigious and innovative examples of research excellence:</p> <ul style="list-style-type: none"> • In December faculty members were recognized for their exceptional contribution to research and teaching at Memorial’s President’s Awards reception. • A faculty member from Faculty of Business Administration, was presented the John Lewis Paton Distinguished University Professorship. • Three faculty members were named University Research Professors, which is a designation above the rank of professor and goes to a faculty member who has demonstrated a consistently high level of scholarship and whose research is of a truly international stature. • Two faculty members from the Faculty of Education and the Faculty of Science received the President’s Award for Outstanding Research. • A faculty member from the Department of Psychology, Faculty of Science, was awarded the President’s Award for Outstanding Graduate and Post-graduate Supervision. <p>Memorial University’s faculty members and students have also been recognized nationally for their research excellence:</p> <ul style="list-style-type: none"> • Two master’s students in the Department of Psychology, Faculty of Science, were among the 25 finalists in the Social Sciences and Humanities Research Council of Canada (SSHRC) Storytellers Challenge in April 2016. • In December 2016, it was announced that a PhD researcher in the Faculty of Medicine discovered a gene mutation that is linked to significant hearing loss in young
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	<p>children in Newfoundland and Labrador. He is collaborating with a team of geneticists and clinicians at the Centre for Genomics-Based Research and Development in Hearing Science in Grand Falls-Windsor, which was established in April of this year. Their research was recently published in the academic journal <i>Human Genetics</i>.</p> <ul style="list-style-type: none"> • The Canadian Academy of Engineering (CAE) inducted a Memorial alumna and the Dean of Engineering and Applied Science to its membership in June 2016. Both individuals have made significant contributions to the field of engineering and applied science both within the province of Newfoundland and Labrador and beyond. • An Associate Professor of composition and electronic music with Memorial's School of Music received a Juno nomination for classical composition of the year, <i>Dark Star Requiem</i>. • A Tier 1 Canada Research Chair (CRC) in Ethnomusicology was awarded to Memorial in December 2016. Tier 1 Chairs, tenable for seven years and renewable, are for outstanding researchers acknowledged by their peers as world leaders in their fields. Memorial is now home to a total of 11 CRCs with several nominations pending. • A University Research Professor in the Department of Geography, Faculty of Humanities and Social Sciences, and his team received the Arctic Inspiration Prize (AIP) in December 2016 for the project SmartICE (Sea-Ice Monitoring and Real-Time Information for Coastal Environments). This sea-ice monitoring system combines traditional ice knowledge with the latest satellite imaging and ice-sensing technology, allowing coastal community members to plan safe passage on sea ice. • Two researchers from the School of Music were elected Fellows of the Royal Society of Canada, the highest honor for Canadian scholars. The society comprises the Academies of Arts, Humanities and Sciences. Scholars are chosen by peers for their exceptional contributions to their respective fields. In addition, a Professor of Civil (Environmental) Engineering, Faculty of Engineering and Applied Science, was among the latest inductees to the College of New Scholars, Artists and Scientists of the Royal Society of Canada. The college is the country's first national system of multidisciplinary recognition for the emerging generation of Canada's intellectual leadership.
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	<ul style="list-style-type: none"> • A faculty member in Business Administration received the Haim Falk Award, which recognizes excellence in scholarly achievements that contribute to the advancement of accounting thought. • A faculty member from Marine Institute was named a James M. Flaherty Scholar which aims to contribute to the academic links between Canada and Ireland.
<p>3. Enhanced funding to support research and creation of scholarly knowledge.</p>	<p>During 2016-17, Memorial continued to secure funding to support research and the creation of scholarly knowledge through external funding opportunities. Selected examples include:</p> <ul style="list-style-type: none"> • Research MUCEP (Memorial Undergraduate Career Experience Program) placements were created to provide greater opportunities for undergraduate training and engagement, and stimulates a heightened interest of graduate studies and research careers among undergrads. The Office of the Vice-President (Research) supported 87 research-based positions through the MUCEP program in 2016-17. April 1, 2016 to March 31, 2017, allocating \$50,000 which was matched by \$50,000 from Career Development and Experiential Learning. • Memorial’s undergraduates were invited to apply for the University Student Summer Internship Program (USSIP). USSIP provides students with the opportunity to carry out a 13-week (or 16-week) research development work term under the supervision of a full-time faculty member or regular term appointee. The USSIP provides up to \$4,500 towards the award and supervisors will contribute additional funds. In total, 44 applications were received and the program funded ten applications. Awards went to undergraduate students from the Faculties of Science, Medicine, Pharmacy, and Humanities and Social Sciences. • The Seed, Bridge and Multidisciplinary Fund provides new, “early days” innovative research projects, provides valuable bridge funding for researchers between grants and encourages the development of multidisciplinary research activities which align with the priority research themes of the Research Strategy Framework. There were two competitions in 2016-17: May 1, 2016, and November 30, 2016. During the May competition, 33 applications were received and the fund supported 22 applications. During the November competition, 29 applications were received and the fund supported 21 applications. The

	<p>combined total funding provided during the May and November competitions was \$411,073.</p> <ul style="list-style-type: none"> • In February 2017, a faculty member in the Department of Ocean and Naval Architectural Engineering, Faculty of Engineering and Applied Science, was named the NSERC-Husky Industrial Research Chair in Safety at Sea. Over a five-year period, multiple sources will contribute a total of \$2.65 million to support research. • In March 2017, a faculty member in the Department of Electrical Engineering, Faculty of Engineering and Applied Science, was named as the Research Chair in Subsea Communications. This new Research Chair expands Memorial's ongoing partnership with Statoil. Memorial is contributing \$1 million over five years towards this partnership and the Chair programs. • In March 2017, a faculty member in the Department of Civil Engineering, Faculty of Engineering and Applied Science, was named Research Chair in Seafloor Mechanics. This new Research Chair expands Memorial's ongoing partnership with Statoil. Memorial is contributing \$1 million over five years towards this partnership and the Chair programs. • A faculty member in the Department of Ocean Sciences, and a team of collaborators from University of Prince Edward Island (UPEI) and industry partner EWOS/Cargill, received \$4.5 million in funding to develop new therapeutic diets for farmed Atlantic salmon. The project was one of six national research collaborations awarded through Genome Canada's Genomic Applications Partnership Program. • A faculty member in the School of Music, and a faculty member in the Department of Chemistry, Faculty of Science, were recipients of the Terra Nova Young Innovator Award in January 2017. The award is provided on behalf of the partners in the Terra Nova oil field by Suncor as operator. Each recipient was awarded \$50,000 in order to fund their pioneering research proposals. <p>Memorial was particularly successful in securing funding to support research infrastructure:</p> <ul style="list-style-type: none"> • The university received \$681,418 from the Canada Foundation for Innovation's John R. Evans Leaders Fund in February 2017, allowing 11 university researchers working on five diverse projects to purchase sophisticated new
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	<p>tools, technology and equipment. Research teams in the Faculty of Science, Faculty of Medicine and the School of Pharmacy are benefitting from this infrastructure support. The John R. Evans Leaders Fund provides researchers with critical infrastructure required to be or become leaders in their field.</p> <ul style="list-style-type: none"> • In September 2016, the Federal Government announced funding of \$93.732 million for the creation of the Ocean Frontier Institute (OFI), an historic partnership between Dalhousie University, Memorial University of Newfoundland and the University of Prince Edward Island (UPEI). The OFI will focus on solutions for safe and sustainable ocean development. Memorial will have a leadership role in four key areas: sustainable fisheries; sustainable aquaculture; marine safety; and ocean data and technology. The investment is through the Canada First Research Excellence Fund (CFREF). Memorial’s joint initiative with Dalhousie and UPEI received the largest amount awarded through the latest CFREF competition. The federal funding will allow Memorial to leverage millions more from industry, government, other partners and the university. • The Federal Government announced a \$14.4 million investment to replace two of Memorial’s aging animal research care facilities and ensure the university can continue to conduct its biomedical research activities and continue to offer certified degree programs. Memorial will provide an additional \$15.6 million for this project. • In June 2016, Memorial’s state-of-the-art Core Science Facility received \$125 million in joint Federal-Provincial funding to advance Memorial’s teaching, learning and research capacity across multiple disciplines. The research and teaching space will be occupied primarily by the Departments of Biochemistry, Biology and Chemistry in the Faculty of Science, and the Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science. It will also promote inter- and multi-disciplinary approaches to science, maximizing the flow of information and interaction among and within disciplines. The total estimated global project budget is \$325 million, with \$99,855,277 coming from the Government of Canada through the New Building Canada Fund’s Provincial-Territorial Infrastructure Component–National and Regional Projects, and \$25,144,723 coming from the
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Government of Newfoundland and Labrador. Memorial University will be responsible for the remaining project costs. The building is scheduled to open in the Fall of 2020.

Memorial University researchers were among the recipients of grants announced by the tri-council agencies:

- In June 2016, a total of \$6.79 million over five years was announced by the Natural Sciences and Engineering Research Council of Canada for 53 Memorial projects led by early-stage, mid-career and established researchers, as well as doctoral students.
 - Of the 45 Discovery Grants announced, 24 were awarded to the Faculty of Science; ten within the Faculty of Engineering and Applied Science; six in the Faculty of Medicine; three for the Grenfell Campus; and one each for the School of Human Kinetics and Recreation and the Fisheries and Marine Institute.
 - One Discovery Accelerator Supplement was awarded to the Faculty of Science. It provides substantial and timely resources to researchers who have a superior research program that is highly rated in terms of originality and innovation.
 - A combined total of \$591,500 in scholarships from NSERC's Postgraduate Scholarships-Doctoral Program were awarded to seven students: five doctoral students from the Faculty of Science; one student in the Faculty of Humanities and Social Sciences; and one student in the Faculty of Medicine.
- A new inter-provincial research study led by Memorial is looking at ways to improve the well-being of young people living with type one diabetes. In June 2016, researchers received a \$75,000 grant from the Canadian Institutes of Health Research (CIHR) which is allowing them to examine the experiences of adolescents and young adults with the disease transitioning into the adult care system in two provinces: Newfoundland and Labrador and Ontario. This CIHR grant is being matched by additional funds from the Janeway Children's Hospital Foundation, Memorial's Faculty of Medicine, and the University of Toronto.
- In September 2016, SSHRC awarded more than \$2.1 million to 22 researchers at Memorial for projects ranging from social entrepreneurship to child psychology to

	<p>politics in the era of globalized finance. The grants support research led by the Schools of Music and Social Work; Faculties of Science, Business Administration and Humanities and Social Sciences; and Grenfell Campus. Among the funding announced, there were:</p> <ul style="list-style-type: none"> ▪ Eight Insight Grants for a combined investment of \$1,265,975; ▪ One Partnership Development Grant for an investment of \$169,409; ▪ Thirteen Insight Development Grants for a combined investment of \$670,799. <p>At the Labrador Institute:</p> <ul style="list-style-type: none"> • Researcher and LI Staff were involved in over \$7 million in research funding from a variety of sources: <ul style="list-style-type: none"> • \$1.2 million CIHR grant to establish an Indigenous health mentorship network in Atlantic Canada, with the Labrador Institute as one of two hubs. • Two \$2.5 million CIHR environment and health initiative grants to work on health research in Labrador, in partnership with Nunatsiavut and NunatuKavut. • ResDa funding for waste management study with Town of Happy Valley-Goose Bay: \$40,000. <p>Overall, \$9.86 million in research related funding was secured by the Marine Institute in 2016-17. Examples of some of the projects include:</p> <ul style="list-style-type: none"> • Leading 'Module H: Sustainable capture fisheries and their ecosystems' of the successful Ocean Frontiers Institute (OFI) project. Module H is valued at \$9 million. MI is also playing a key role in other work packages within OFI. • Secured over \$170,000 of research funding through NRC - IRAP. • Secured a \$1.5 million investment from the Atlantic Canada Opportunities Agency supporting research and training in the aquaculture and ocean technology sectors. • Developed a partnership with Ocean Networks Canada (ONC) to provide 40 per cent of SmartBay's operational cost per year up to \$400,000. • A faculty member from the Centre for Fisheries Ecosystem Research (CFER) was part of a research team that was awarded a NSERC Strategic Partnership Grant. \$260,000 will support work in northern Labrador and Nunavut to sample capelin population and support grad student research.
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<p>4. Enhanced engagement of external collaborators and community partners in research and creation of scholarly knowledge.</p>	<p>In 2016-17, Memorial continued to engage external partners and collaborators in research:</p> <ul style="list-style-type: none"> • Just over \$40 million was committed by industry involving 171 industry partners in 249 research projects compared to \$31 million committed by industry involving 201 industry partners in 280 research projects in 2015-16. • In April 2016, a new centre opened in Grand Falls-Windsor in central Newfoundland to study families with genetic forms of hearing loss. Their goal is to model hearing defects and develop better algorithms for hearing aids and other devices. If successful, this research could improve the lives of people here at home and around the world. The new state-of-the-art genomics-based R&D centre for hearing science, is an ongoing collaboration with the EXCITE Corporation, the town’s not-for-profit business development unit. Memorial, Atlantic Canada Opportunities Agency, and the Provincial Government invested more than \$1 million in infrastructure support for the new facility. A professor in the Faculty of Medicine, is the Principal Investigator for the project. Scientists, audiologists and computer engineers from Memorial, the University of Western Ontario and McMaster University are collaborating on the innovative research study. • The <i>Journal of Ocean Technology</i>, a Memorial publication celebrated its tenth anniversary in June 2016. The editorial team behind the JOT published four times a year by the Marine Institute, is encouraging more researchers on Memorial’s campuses to consider the journal’s worldwide distribution and loyal readership when looking to showcase their work. • In May 2016, the Newfoundland and Labrador Hydraulic Fracturing Review Panel chaired by the Associate Vice-President (Research), Memorial University, released its final report. Appointed by the Minister of Natural Resources, Government of Newfoundland and Labrador, the panel conducted a public review of the socio-economic and environmental implications of hydraulic fracturing in western Newfoundland. Its mandate was also to make recommendations on whether or not hydraulic fracturing should be undertaken in western Newfoundland. The panel had more than 600 public submissions. • A new website focused on Labrador Inuit cultural research was launched in May 2016 due in large part to a \$7.4 million research partnership led by a professor <i>emeritus</i> in the
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	<p>School of Music. The Tradition and Transition Partnership site includes photos, articles and announcements regarding the project, which is supported by SSHRC, Memorial University, the Nunatsiavut Government and more than 20 other organizations. The research partnership merges collaborative academic research with traditional knowledge for the protection, preservation and revitalization of Labrador Inuit culture and language.</p> <ul style="list-style-type: none"> • In November 2016, the Genesis Centre announced a partnership with Toronto-based MaRS Discovery District, the largest innovation hub in the country, to bring its unique programming to Newfoundland and Labrador. MaRS on the Rock (MOTR), a 14-week program, includes in-person workshops focused on business model design, financing and entrepreneurial leadership, and will be geared toward aspiring business leaders, educators, corporations, post-secondary students and government agencies. The new program, which highlights the benefits of innovation within government and the workplace, started in January 2017. • More than 400 Inuit, researchers, artists, community leaders, tradition-bearers and students participated in the 20th biennial Inuit Studies Conference, a four-day event held in October 2016. The conference was hosted by Memorial and the Nunatsiavut Government and ran from October 7-10 on the St. John's campus, with a variety of community events, performances and special activities happening throughout the capital city. Organizers planned 200 discussions, workshops and other sessions focused on the theme of Inuit traditions. Delegates also explored a wide range of disciplines including education, housing, health, language, archaeology, the creative arts, the environment, public policy and many more. • The research of a Memorial scientist from the Department of Geography, and his team was highlighted on February 6, 2017, in the House of Commons by Peter Schiefke, Member of Parliament for Vaudreuil-Soulanges, Quebec. Mr. Schiefke met with Inuit youth on the Nunavut communities of Pond Inlet and Iqaluit and noted he had an opportunity to see first-hand Memorial's SmartICE (Sea-ice Monitoring And Real-Time Information for Coastal Environments) project that is developing invaluable technology for northern communities. SmartICE provides locally relevant information for sea-ice travel in two pilot communities —
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	<p>Nain, Labrador, and Pond Inlet, Nunavut — where sea-ice is part of the winter highway, the travel route to country food and a fundamental part of culture and well-being.</p> <ul style="list-style-type: none"> • The Labrador Institute has an extensive number of partners nationally and internationally, including: Innu Nation, NunatuKavut Community Council, Nunatsiavut Government, Labrador Grenfell Health, Nunavut Research Institute, Nunavut Tunngavik Inc., Newfoundland and Labrador English School Board, Town of Happy Valley-Goose Bay, Hibernia Management Company. • Grenfell Campus conducted inter-campus visits to share information and research (i.e. Botanical Gardens, Labrador Institute), forged Provincial partnerships to coordinate and execute 2016 Agriculture Symposium in St. John’s and engaged in collaborations focusing on Innovation Strategy. • The majority of MI’s research activity involve academic, community or industry partners. Some specific examples include: <ul style="list-style-type: none"> ▪ A key role in OFI (the largest single investment in oceans research in Atlantic Canada) partnering with the St. John’s Campus of Memorial as well as Dalhousie and UPEI. ▪ A new memorandum of understanding (MOU) with the Canadian Ocean Mapping Research and Education Network. A multi-institutional network aimed at developing research activities and educational programs to increase Canada’s capacity in ocean mapping. ▪ A collaboration with Lockheed Martin Canada to develop maritime civilian applications for their VISTA simulation technology. ▪ Continued work with AIT in Tromso, Norway on ocean survival research. ▪ Continued development of its collaborative partnership with the Irish Marine Institute through such initiatives as; the linkage between SmartBay, Placentia Bay Newfoundland and SmartBay, Galway Bay, Ireland and the charter of the RV Celtic Explorer for the overwintering cod survey.
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The initiatives outlined above helped Memorial University achieve its 2016-17 objective to have implemented activities to enhance its creation and profile of research and scholarly knowledge.

The table below outlines additional initiatives undertaken to achieve the 2014-17 goal of enhancing its creation and profile of research and scholarly knowledge. The indicators, and associated initiatives, are relevant to both measures related to the goal (i.e., enhanced research profile and enhanced research productivity).

Goal 2: By March 31, 2017, Memorial University will have enhanced its creation and profile of research and scholarly knowledge.

Measure: Enhanced creation and profile of research and scholarly knowledge.

INDICATOR	2014-17 RESULTS
<p>1. Supported the achievement of excellence in research and creation of scholarly knowledge.</p>	<p>Over the period covered by the plan, Memorial took a number of actions to support the achievement of excellence in research and the creation of scholarly knowledge. In 2014-15, the Vice President (research) initiated a review of the systems and structures related to research and contract support services that resulted in a major restructuring to create efficiencies and provide better service to Memorial’s researchers and external clients. The Strategic Research Intensity plan was created which had 12 recommendations designed to strengthen all aspects of research at Memorial. An innovation strategy was developed to help increase Memorial’s performance related to commercialization of research outcomes. A review and consultation regarding the Intellectual Property (IP) Policy was commenced.</p> <p>Services available to researchers were also improved. The Memorial Researcher Portal was launched in 2015 and enhanced in 2016. It allows researchers to apply online to the various research ethics boards. The Technology Transfer and Commercialization Office (TTCO) was created to support industrial liaison, technology transfer and commercialization at the university. The Atlantic Facilities and Research Equipment Database (AFRED), an open-access, searchable, online database, was created to match researchers with available, specialized research infrastructure at Memorial University and other institutions throughout Atlantic Canada.</p> <p>Innovative mechanisms to facilitate research were initiated such as the Seed, Bridge and Multidisciplinary Fund which provides new, “early days” innovative research projects, provides valuable bridge funding for researchers between grants and encourages the development of multidisciplinary research</p>

	<p>activities which align with the priority research themes of the Research Strategy Framework.</p> <p>Memorial was very successful in attracting federal, provincial and private sector funding to support research infrastructure. Examples include:</p> <ul style="list-style-type: none"> ▪ Core Science Building (\$125 million) ▪ Animal care facility (\$14.4 million) ▪ Dobbin Genetics Research Centre (\$29.1 million) ▪ Hibernia Offshore Operations Simulator Facility (\$6.1 million). ▪ the Suncor Energy Offshore Research and Development Centre (\$6.8 million)
<p>2. Engaged the local, national and international community in research and creation of scholarly knowledge.</p>	<p>Memorial has been very successful in engaging the local, national and international community in research and creation of scholarly knowledge. The Oceans Frontier Institute, a collaboration between Memorial, Dalhousie and UPEI valued at \$93 million is a very tangible and recent example of this success. Private sector involvement in research at Memorial has also been significant. Over the three years covered by this plan, approximately \$100 million was committed to 833 research projects. The Labrador Institute and Grenfell Campus engage with a multitude of local groups in their respective regions in such areas as salmon genetics, sub-surface soil contamination, forestry, and agriculture. The Marine Institute has a number of memorandums of understanding to engage in collaborative research with other institutions, government agencies, and the private sector.</p>

ISSUE 3: PUBLIC ENGAGEMENT

Over the years, Memorial has established a reputation for leveraging the expertise of its faculty and staff and bringing individuals, knowledge and resources together to solve problems and achieve regional and provincial goals. As the only university in Newfoundland and Labrador, Memorial has had a long-standing role in connecting and supporting the people of the province and beyond. The scope and magnitude of the work in this area has only continued to grow, involving all campuses and areas of the province.

The importance of public engagement at Memorial was further strengthened in 2011 with the development of the [Public Engagement Framework](#) which outlined a vision for Memorial University to be a world leader in this area. The Office of Public Engagement and the Harris Centre lead the university's public engagement efforts, serving as facilitator and initial point of contact for the community.

Objective 2016-2017: By March 31, 2017, Memorial University will have implemented activities to enhance its public engagement with the province and beyond.

Measure: Implemented activities to enhance public engagement with the province and beyond.

INDICATOR	2016-17 RESULTS
1. Enhanced programs and supports for individuals and groups involved in public engagement activities.	During 2016-17 Memorial enhanced supports for public engagement activities. Examples include: <ul style="list-style-type: none">• Continued to administer the Quick Start Fund for Public Engagement, aimed at supporting new partnerships between people and groups within Memorial and people and groups external to the university. In the 2016-17 cycle, the Fund supported 33 projects with a total of approximately \$36,875 awarded. Overall, since 2014 a total of 96 projects were funded with approximately \$96,000 awarded that leveraged at least \$331,000 in other funding, making it over 3:1 leverage ratio.• Continued to administer the Accelerator Fund, a program that awards up to \$10,000 to support the initiation or expansion of public engagement activities. In 2016-17 cycle, 20 projects have been funded with a total of approximately \$184,000 awarded. Overall, 38 projects were funded since 2015 supporting 34 faculty members and four staff members with approximately \$367,000 awarded. This leveraged at least \$865,500 in other funding, making it over 2:1 leverage ratio.• Implemented the Engage Memorial Series, a collection of ten workshops and events spread across four Memorial

	<p>campuses that took place between June and December 2016 to help build internal and external capacity and shared principles for public engagement.</p> <ul style="list-style-type: none"> • Continued the Cold Ocean and Arctic Science, Technology, and Society (COASTS) initiative coordinating marine and northern-related research, teaching, public engagement and government relations activities across all Memorial units. The initiative’s public stakeholder engagement and conference activities link the capacity of the university to the needs and concerns of communities, governments, and businesses across the country, and the circumpolar North. • As a part of Strategic Government Relations Initiatives a collaboration with Dalhousie and UPEI was started to create Ocean Frontier Institute, a \$220 million project that involved funding for 56 academic staff and 64 Ph.D. and master’s students. The institute will provide research support in aquaculture, fisheries, shifting ecosystems, and social sciences. • Strategic Government Relations Initiatives provided support to secure Post-Secondary Strategic Investment Fund’s (SIF) \$14.4 million funding for the Animal Care Facility and \$99 million federal funding for the Core Science Facility. • The Battery Facility is being developed as a public engagement and innovation platform that will include public space, technology supports, Memorial public engagement units, and public programming to support Memorial’s mission. \$9.6 million external funding, including \$4.1 million from SIF, has been secured to develop the project. The project has no impact on the university’s operating budget. • The <i>Newfoundland Quarterly</i>, the longest running magazine in Canada, was awarded a total of \$108,868 in grants from Canadian Heritage and Canada Periodical Fund (CPF) to aid in publishing, develop an online platform for the magazine and publish a special issue celebrating Canada 150. • Memorial’s one-of-a-kind online public engagement platform, Yaffle, was redeveloped, enhanced and expanded and now includes other post-secondary institutions and public partners. Memorial has partnered with a consortium of major international universities (including Cornell, Johns Hopkins, and Columbia) to add
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	<p>Yaffle’s public engagement focus into the Vivo scholar networking platform.</p> <ul style="list-style-type: none"> • A new strategic plan for the Botanical Garden has been developed reaffirming the Garden’s relationship with the academy. • As a part of MUN Innovation, steering and coordination committees were established to coordinate innovative units in Memorial with aims of filling gaps in publicly engaged innovation and development of innovation culture. • Engagement activities at Grenfell Campus included: <ul style="list-style-type: none"> ▪ Partnered with the City of Corner Brook to pilot City Studio in the Fall Semester 2016. City Studio brings Grenfell teaching and learning to City Hall and allows students to work with City staff on issues that align with the City’s strategic priorities. The pilot was a success and will return in Fall 2017. ▪ Planned and executed Navigate Start-up Weekend (April) and Create-a-thon (February), as ways to build entrepreneurial capacity in the region through team building, pitching ideas and launching a business within 54 hours. ▪ Launched the Grenfell – Gros Morne partnership with the goal of mobilizing Grenfell faculty, students and staff for greater engagement in Gros Morne. ▪ Conducted Lunch and Learn events, including a City Studio Experiential Learning activity in January. Students shared City Studio experience with observations, reflections and interpretations. • Engagement activities at Marine Institute included: <ul style="list-style-type: none"> ▪ Continued to participate in a number of youth engagement activities, through its schools and centres including: <ul style="list-style-type: none"> ▪ Marine Advanced Technology Education (MATE) Remotely Operated Vehicle (ROV) NL Regional RANGER and SCOUT competitions. ▪ The activities of MI Ocean Net. ▪ Nautical Skills Competition, in collaboration with the Master Mariners of Canada NL Division. ▪ Model Boat Race.
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	<ul style="list-style-type: none"> ▪ Worked with a number of community and industry partners to host activities and events at the Institute. These include: <ul style="list-style-type: none"> ▪ Techsploration and World Oceans Day. ▪ Provided facilities tours for various industry and institutional partners, community groups and government representatives. ▪ Hosted tours of its planetarium with the Royal Astronomical Society for community groups and families. ▪ Hosted a public lecture series related to the Ocean Innovation conference theme. ▪ Sponsored the Petty Harbour Mini-Aquarium, and a number of faculty and staff volunteer with the group. ▪ Continued to partner with the Deer Lake Underwater Recovery on various education and training activities related to ocean technology. • Engagement activities at the Labrador Institute included: <ul style="list-style-type: none"> ▪ Re-allocated funds to hire a research and engagement position (forthcoming). ▪ Created an engagement committee. ▪ Renewed emphasis on partnerships and public engagement in our activities, including reaching out to community groups, giving talks at public events, working with the local schools to provide guest lectures, and regularly working with communities in Labrador to share science and learning. ▪ Obtained funding to support a number of community engagement initiatives (i.e. from WW I Commemoration Fund to work with Labrador Heritage Society on Labrador War Veterans project; funding to support events throughout Labrador). ▪ Conducted regular outreach activities around the region and beyond to highlight Labrador Institute, including events to bring people together (i.e. event connecting Chamber of Commerce with Labrador Institute researchers to business community; participation in EXPO Labrador and Northern Exposure; regular meetings in north and south coast of Labrador).
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<p>2. Celebrated achievements, collaborations and partnerships in public engagement.</p>	<p>In 2016-17, the university continued to celebrate its achievements, collaborations and partnerships in public engagement. Selected examples include:</p> <ul style="list-style-type: none"> • To celebrate two exemplary community-university partnerships in 2016, the President’s Award in Public Engagement Partnerships were awarded to: <ul style="list-style-type: none"> ▪ Dr. Lisa Rankin (Archaeology) and Mayor Jack Shiwak (Rigolet Inuit Community Government) for “Double Mer Point: Implementing the Rigolet Inuit Community Government's Tourism Strategy”. ▪ Dr. Rose Ricciardelli (HSS) and Peter Clarke (RCMP) for the project on extrajudicial measures used to divert youth away from formal justice system and connect them with their communities and local police officers in NL. • Continued to highlight public engagement achievements, collaborations, and partnerships both online and in print. This occurs through Memorial’s Public Engagement website (www.mun.ca/publicengagement) social media, and other venues. The public engagement Framework Feature, for example, profiles examples of effective public engagement in the Memorial <i>Gazette</i>. • Continued to build an inventory of public engagement activities creating partnerships with transformative impact. • The Vice-President (Grenfell Campus) Engagement Awards (faculty, staff, students) were presented at convocation in May 2016 to bring greater visibility and recognition to engagement activities. • A conference titled “Innovation and Entrepreneurship: Grenfell’s Role in the Western Region” was held at Grenfell Campus. This April 2017 event explored the role Navigate Entrepreneurship Centre (and Grenfell Campus more broadly) can play to support a culture of entrepreneurship and encourage innovation. A total of 90 people attended. • “Our Way Forward: Sharing Knowledge and Building Capacity for Regional Development” (held in St. Anthony – November 2016) was a week-long community radio event and conference looking at challenges and opportunities for the region. Over 90 people participated in sessions on the fishery, tourism and regional government. High school students participated in coding and business canvas workshops. • Harris Centre Regional Workshop (Stephenville, October): Creating Community-University Connections. Partnered
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	<p>with the Harris Centre in developing a pre-workshop networking session which highlighted innovative opportunities for engagement and collaboration. Format was snap-shot presentations by community and campus partners.</p> <ul style="list-style-type: none"> • The Labrador Institute <ul style="list-style-type: none"> ▪ Continued monthly presentations of North West River speaker series conducted by academics and visiting experts. ▪ Hosted two artists in residence at Labrador Institute Research Centre, one in Fall and one in Winter. ▪ Continued presentations of monthly <i>Labrador/ians on Film</i> series. ▪ Developed monthly Labrador Heritage minutes and mobile film workshops. ▪ Appeared in several <i>Gazette</i> issues highlighting research and partnerships. ▪ Received regular media attention for research through the Labrador Institute (water research, fisheries research, and climate change and health research), in print and media, including local, regional, national, and international sources. Highlights include CBC's <i>The Current</i>, <i>Canadian Geographic</i>, <i>Eye on the Arctic</i>.
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The initiatives outlined above helped Memorial University achieve its 2016-17 objective to enhance implemented activities to enhance its public engagement with the province and beyond. The table below outlines activities undertaken over the three year period of the plan to achieve the goal of enhancing its public engagement activities.

Goal 3: By March 31, 2017, Memorial University will have enhanced its public engagement activities with the province and beyond.

Measure: Enhanced public engagement activities with the province and beyond.

INDICATOR	2014-17 RESULTS
1. Developed initiatives within Memorial University to build public engagement.	<p>Memorial was successful in developing initiatives to build public engagement:</p> <ul style="list-style-type: none"> • Developed and administered the Quick Start Fund for Public Engagement, aimed at supporting new partnerships between people and groups within Memorial and people and groups external to the university. From 2014 to 2017 the fund awarded approximately \$96,000 for 96 projects that have been leveraged in 3:1 ratio with other funding

	<p>totaling at least \$331,064. Overall, 173 organizations have collaborated through the fund as public partners.</p> <ul style="list-style-type: none"> • Developed and administered the Accelerator Fund, a program that awards up to \$10,000 to support the initiation or expansion of public engagement activities. From 2015 to 2017, approximately \$367,000 was awarded for 38 projects that have been leveraged in 2:1 ratio with other funding totaling at least \$865,586. Overall, 102 organizations have collaborated through the fund as public partners. • Enhanced and emphasized Cold Ocean and Arctic Science, Technology, and Society (COASTS) initiatives that have been coordinated with the Provincial and Federal Governments, industry and business across the country, community and Indigenous organizations. Over \$568 million funding was achieved for COASTS-related initiatives. • The Harris Centre with its Regional Analytics Laboratory (RAnLab) collaborated with the Community Foundation of Newfoundland and Labrador to create Vital Signs, a series of annual province wide check-ups conducted since 2014. Newfoundland & Labrador’s Vital Signs reports were widely distributed throughout the province and stimulated publicly engaged discussions about the state of health of the province across several key areas.
<p>2. Cultivated conditions for the public to engage with Memorial.</p>	<p>Over the course of the current three year plan, Memorial was successful in creating the conditions necessary for the public to engage with the university. Examples include:</p> <ul style="list-style-type: none"> • Designed and implemented the Engage Memorial Series, a collection of workshops and events that helped to build internal and external capacity for public engagement. Between 2014 and 2016 a total of 48 on-campus and off-campus events were supported that involved participation of approximately 1,000 people. • The President’s Award in Public Engagement Partnerships was created to recognize and celebrate public engagement partnerships between the community and the university. Since its inception in 2015 it has been awarded to four public engagement partnership projects. • Developed, enhanced and expanded Yaffle – Memorial’s one-of-a-kind online public engagement platform, which includes both the university and other post-secondary institutions and public partners.

	<ul style="list-style-type: none">• Started redevelopment of the Battery Facility to create a public engagement and innovation platform that includes public space, technology supports, Memorial public engagement units, and public programming to support Memorial’s mission.
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ISSUE 4: ENABLING SUCCESS

Memorial must ensure that its operating environment is optimal if it is to achieve its institutional mission, especially in the current fiscal environment. Development and maintenance of infrastructure is a critical success factor for Memorial to achieve its long term goals in teaching and learning, research, and engagement. Now more than ever, it is critical that the processes that support the core mission of the institution be as efficient and effective as possible.

[Memorial's Infrastructure Plan](#) provides the long-term vision and direction for development of new infrastructure and the maintenance of complex and increasingly dilapidated aging infrastructure. In 2013-14, the university created a process to review operations and budgets across the academic and administrative functions of the university in response to the Provincial Government's budget. The Operations and Budget Review Secretariat, which completed its mandate in 2016-17, identified a number of projects to ensure that processes are streamlined, bureaucracy is minimized, and that the university makes the best use of its resources. The university remains committed to continuously seeking efficiencies and improving its operations.

Objective 2016-2017: By March 31, 2017, Memorial University will have furthered activities to enhance infrastructure and operational efficiency.

Measure: Further activities to enhance infrastructure and operational efficiency.

INDICATOR	2016-17 RESULTS
1. Continued implementation of the infrastructure plan.	<p>Over the course of 2016-2017 progress was made on a number of projects identified in the Infrastructure Plan. Some highlights include:</p> <ul style="list-style-type: none"> • St. John's Campus - Core Science Facility <ul style="list-style-type: none"> ○ The building foundations contract was completed and the tender for the construction of the remainder of the building was issued and closed. Construction of the remainder of the building began in Spring 2017 and is expected to achieve substantial completion 36 months after the tender is awarded. ○ Funding from the Government of Canada's New Building Canada Fund was announced for the project in June, 2016. ○ The Core Science Facility will provide quality research and laboratory teaching spaces primarily for the Faculty of Science and the Faculty of Engineering and Applied Science. The building will also include shell space to be used for a variety of joint university-industry research and collaborations.

	<ul style="list-style-type: none"> • St. John's Campus - Battery Facility <ul style="list-style-type: none"> ○ Battery Facility Redevelopment Abatement and Demolition Contract was substantially completed. ○ Battery Facility Redevelopment & Building Expansion contract was tendered, awarded and construction is ongoing. The Facility is scheduled to achieve substantial completion in Spring 2018. ○ Renovations to graduate student accommodations were fully completed in 2016 and the space continues to see high occupancy rates. ○ Funding from the Government of Canada's Post-Secondary Institutions Strategic Investment Fund was announced in Fall 2016 in support of transitioning the property into a public engagement and innovation hub. • St. John's Campus - Animal Resource Centre <ul style="list-style-type: none"> ○ Design work was completed during the reporting period, and the construction contract will be issued for tender in the future. ○ Funding from the Government of Canada's Post-Secondary Institutions Strategic Investment Fund was announced in Fall 2016 in support of this project. ○ The Animal Resource Centre will be a much-needed replacement for two of Memorial University's current animal research care facilities; the facilities at the Health Sciences Centre (over 40 years old) and the Biotechnology Building (over 25 years old). Construction of the new facility will allow the University to maintain its certification with the Canadian Council for Animal Care (CCAC). • St. John's Campus - Aboriginal Centre <ul style="list-style-type: none"> ○ Detailed design was completed during the reporting period, however revisions to the design are being considered to allow for flexibility in the future utilization of the building's basement area. ○ A site has been identified and selected for the project, however tenders will not be called until all funds have been secured for the project. ○ The vision for the facility is to have a centrally located, highly visible, dedicated Indigenous space on the St. John's Campus. The space will allow for additional programming in support of Indigenous research activities as well as to connect Indigenous students,
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	<p>researchers, and communities from across the province.</p> <ul style="list-style-type: none"> • Marine Institute – Phase IIB Ocean Research and Training Building in Holyrood <ul style="list-style-type: none"> ○ Phase IIB of the project was in early design stage and tenders will not be called until all funds have been secured for the project. ○ Phase IIB of the project involves the development of a 40,000 sq. ft. research and teaching facility which includes a high bay workshop, shops, office space, dry laboratories, classroom space and meeting rooms. ○ The primary capability provided by this phase of the project is in support of research and training on site. The proposed infrastructure would see the facility’s shops and labs used in support of research and development activity in ocean observation, ocean instrumentation, underwater vehicles and ocean mapping. • Grenfell Campus – Building HVAC Upgrades <ul style="list-style-type: none"> ○ Fine Arts Building <ul style="list-style-type: none"> ▪ Consultant was selected, scope was determined and design was completed over the reporting period. ▪ Project was tendered and will be awarded in April 2017, scheduled for completion in September, 2017. ○ Arts & Science Building <ul style="list-style-type: none"> ▪ Consultant was selected, scope was determined and design was completed over the reporting period. ▪ Project was tendered and awarded in April 2017, schedule for completion in September 2017.
	<p>Over the course of 2016-2017 progress was made on a number of identified deferred maintenance projects with approximately \$3.4 million committed. A summary of progress is provided below:</p> <ul style="list-style-type: none"> • Architectural and Roofing: Eight building envelope and two roofing projects were undertaken during the reporting period. Two of these projects were at the Education and Science Building curtain walls, which are high priority projects. Other projects included the underground tunnel roof leaks, doors and windows as well as an upgrade to Corte Real.

	<ul style="list-style-type: none"> • Electrical: The MUN 04 and 07 high voltage electrical cable replacement was initiated during the reporting period. This is one phase of a multiyear project. One of two electrical substations which provide power to the Engineering Building and National Research Council Building is underway with work scheduled to be completed by December 2017. • Mechanical: Mechanical room upgrades at both St. John's and Grenfell Campuses are priority projects which were initiated along with fire protection system renewal at the Earth Science Building. • Utilities Annex: Work commenced in previous years involving the installation of a new boiler and installation of replacement emergency generators was still ongoing.
2. Achieved Institutional Efficiencies.	<p>In 2016-17, Memorial University continued to achieve institutional efficiencies through budget reductions and attrition savings as follows:</p> <ul style="list-style-type: none"> • The mandated goal of \$3 million in salary reduction by attrition was achieved. • An additional \$4.05 million in budget reductions was managed through cuts to travel (\$1.3 million) and administration (\$2.75 million).

The initiatives outlined above allowed Memorial to achieve its 2016-17 objective of furthering activities to enhance infrastructure and operational efficiency. The section below provides a summary of initiatives undertaken to achieve the 2014-2017 plan goal of enhancing the university's infrastructure and operational efficiency.

Goal 4: By March 31, 2017, Memorial University will have enhanced infrastructure and operational efficiency of the institution.

Measure: Enhanced infrastructure and operational efficiency of the institution.

INDICATOR	2014-17 RESULTS
1. Implemented the infrastructure plan.	<p>Memorial implemented a number of key elements of the infrastructure plan in the three year period covered by the 2014-17 plan.</p> <ul style="list-style-type: none"> • The university was successful in attracting federal funding to support the development of the Core Science Building, the Battery facility, the Marine Institute Holyrood Facility and the Animal Care Building.

	<ul style="list-style-type: none"> • Design and site preparation work for the Core Science Building was completed with construction to commence in the spring of 2017. • The Battery residence area was completed, creating 87 graduate student accommodations. Abatement and demolition work was completed and the facility redevelopment and building expansion contract was tendered, awarded and construction is ongoing. • A new offshore operations simulator was constructed at Marine Institute. • Construction of Phase IIA of the Holyrood Marine Base (breakwater and marginal wharf) is nearing completion. Other elements of Phase IIA, including installation of subsea structures in the water lot will be completed in the coming months. • The Marine Institute is working with architectural consultants on the planning of Phase IIB development (new facility) of the Holyrood Marine Base. • All design work for the Animal Care building was completed with construction to commence in the near future. • Grenfell’s energy strategy was implemented including a secure source of emergency power and a reliable distribution system. • A major upgrade to St. John’s College was completed. • Essential roofing, electrical, and HVAC upgrades were made to a number of buildings. • In total, the university completed approximately \$16.75 million in critical deferred maintenance over the period covered by the plan.
<p>2. Implemented select findings of the efficiency review.</p>	<p>For the period from 2014-17, Memorial University implemented a number projects identified by the efficiency review including:</p> <ul style="list-style-type: none"> • Operational changes in a number of academic units including Medicine, Computer Science, Pharmacy, Nursing and Business resulting in cost reductions of \$1.428 million. • Restructuring of Cooperative Education resulting in savings of \$336,000. • Administrative efficiencies in Printing Services and Marketing and Communications resulting in savings of \$469,000.

	<ul style="list-style-type: none">• The university managed a series of budget reductions as well. Overall, about \$13.5 million dollars in cost savings (\$7.6 million), cost avoidance (\$0.5 million), and budget cuts (\$5.4 million) were achieved in the first two years of the planning period and an additional \$7.05 million in budget reductions occurred in 2016-17, for a total of approximately \$20.5 million.
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Opportunities and Challenges

Like many other higher education institutions, Memorial University faces challenges as it seeks to fulfill its mission, such as shifting enrolment trends, changing program demands, aging infrastructure, and an uncertain fiscal environment. However, there are still numerous opportunities that will need to be considered carefully and pursued strategically. As Memorial moves forward with its Strategic Plan, it will continue to meet the challenges and embrace new opportunities. In doing so, it will continue to rethink, innovate and adjust to meet the changing needs of today's students and those of the province while being mindful of the challenging fiscal realities.

More than ever, Memorial University strives to be an open and transparent institution that is accountable to its funders and responsible for its actions. In the spirit of accountability, the university will continue to operate in a manner that encourages broad communication about its progress towards stated goals and objectives, activities, and use of resources.

The university has been successful in achieving its stated objectives for 2016-17 as well as the 2014-2017 goals that were set out its strategic plan for 2014-17. This report fulfills its obligation under the province's *Transparency and Accountability Act*.

APPENDIX

**Memorial University of Newfoundland Consolidated Financial Statements with
Supplementary Schedules March 31, 2017.**

FORTHCOMING