



Research & technology solutions for industry

NRC ANNUAL REPORT • 2013-14

NRC·CNRC



National Research
Council Canada

Conseil national de
recherches Canada

Canada



Driven

by innovation

Committed

to providing leading-edge support

Dedicated

to building economic competitiveness

President's message

In the spring of 2013, we introduced the new NRC to the world: a research and technology organization (RTO) that is driven by innovation, committed to providing leading-edge support and dedicated to building economic competitiveness. At that time, we made a public commitment to measuring our success based on the success of our clients – primarily, R&D intensive Canadian companies.

In support of our goal to help innovative Canadian companies become more successful, in 2013-14 we introduced a suite of industrially-driven R&D programs that respond to areas of greatest market-pull. These programs include high-value collaborations designed to: open new industrial markets for renewable biomaterials; improve productivity and profitability in the mining sector; increase the rapid delivery of state-of-the-art high-speed modulators; and expand the reach and application of space exploration.

To ensure that small and medium-sized Canadian companies have access to the business and technical services that they require, the Government of Canada recently launched the Business Innovation Access Program (BIAP), delivered through NRC's Industrial Research Assistance Program (NRC-IRAP). BIAP helps Canadian SMEs expedite their ability to commercialize by accessing business and technical services from Canadian universities, colleges and non-profit research institutions. Canada's Economic Action Plan 2014 further strengthened this commitment to SMEs through the announcement of the Canada Accelerator and Incubator Program (CAIP), also being delivered through NRC-IRAP. The CAIP program will help entrepreneurs create new companies and realize the potential of their ideas by delivering intensive mentoring and other resources required to further develop their businesses.

Through these investments, NRC is now optimally positioned to help Canadian companies innovate more and invest more in R&D, both of which are key contributing factors to Canada's continued economic growth and long-term prosperity. As we move forward, a refocused NRC will continue to support Canada in becoming one of the world's most vibrant 21st century economies: one that achieves economic growth and development through sustainable and responsible stewardship of our environment; one that is poised to address global resource, infrastructure and environmental challenges; and one that generates knowledge-intensive jobs, values ingenuity and offers the promise of a prosperous future for generations of Canadians to come.



John R. McDougall, P. Eng.,
President



National Research Council Canada's innovation engine

NRC's services and expertise are aligned with client needs, ensuring a high return on investment (ROI) for Canada. Our new business model provides the holistic approach, industry focus and expertise required to capture lasting benefit for the nation. Our goal as Canada's national RTO is to spur economic prosperity by delivering technology development programs and specialized national facilities and services, all with an eye to boosting industrial R&D.



Strengthening the nation's global competitiveness requires Canadian industries to be productive, profitable and to follow a sustainable growth path. Innovation – the conversion of ideas and knowledge into commercially successful products and services – is a universally agreed-upon driver of increased productivity. Effective innovation is what will keep Canada globally competitive.

The Research and Technology Organization Solution

In 2013-14, NRC put into motion its long-term plan to become Canada's engine for industrial innovation; it became the nation's research and technology organization (RTO). RTOs are mission-oriented providers of innovation services to firms and governments. They are dedicated to building economic competitiveness and improving quality of life, and they are driven by improving national productivity and competitiveness.

Some of the world's most successful innovation-based economies with challenges similar to Canada's have employed critical intermediary RTOs to help drive commercialization and increase business expenditures in R&D. They have proven successful in helping bridge the innovation gap between university-based discovery and industrial commercialization, and are focused on delivering the knowledge, equipment, applied research and technical and commercialization services that industry needs to innovate and compete.

During NRC's first year as Canada's RTO, the organization underwent significant restructuring, streamlining multiple silos of research institutes into integrated R&D divisions. This new structure provides the ability to quickly assemble cross-disciplinary teams around current industry needs and emerging new markets. In this way, NRC is able to spur economic prosperity by delivering technology development initiatives and specialized national facilities and services, all with an eye to boosting industrial R&D.

Innovation

The
conversion of
ideas
and knowledge
into commercially
successful
products and
services

Revenue BY TYPE

Technical services

50%

Research services

32%

Intellectual property, royalties, and fees

6%

Rentals

3%

Sales of goods and information products

4%

Other

5%



The new NRC business model addresses many of the identified gaps and weaknesses in Canada’s innovation system. It provides:

- A holistic approach – that is national in scope and global in reach, transcending industrial sectors and research and development (R&D) disciplines;
- A steadfast focus on where innovation takes place – recognizing that the most successful products, profit-wise, are 79% driven by market-pull and only 21% driven by technology-push; and
- Experts who can cross the cultural divide between business and science, identifying how business needs can be addressed with R&D based solutions.

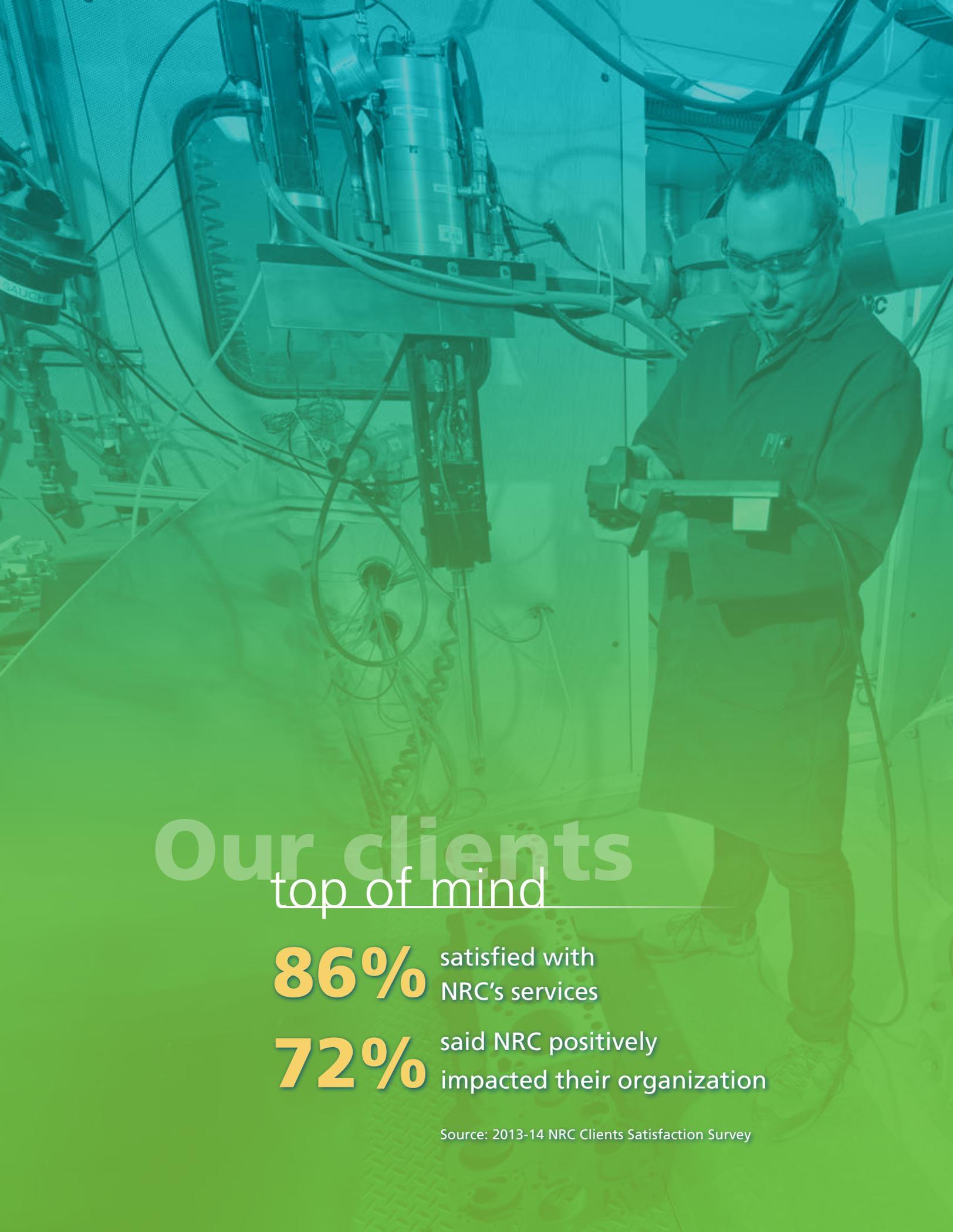
Broadly speaking, NRC’s world-class infrastructure, technical expertise and people can be slotted into one of four categories that work together to deliver the organization’s initiatives. These four “business lines” are:

- **Strategic R&D**, which accelerates commercial development timelines in areas of national priority by engaging in collaborative research projects with partners;
- **Technical and Advisory Services**, which assist clients in solving immediate technical problems by delivering specialized fee-for-service support (e.g. testing and certifications, calibration, prototyping, demonstrations, scale-up and consulting);

- The **Industrial Research Assistance Program (NRC-IRAP)**, which helps Canadian small and medium-sized enterprises (SMEs) grow and succeed by delivering advisory services and financial support. NRC-IRAP also serves as an SME referral portal into NRC’s full suite of services and initiatives; and
- **Scientific Infrastructure**, which enables clients to effectively use some of Canada’s most specialized, large-scale scientific infrastructure, ensuring that access is fair and based on merit.

With a focus on translating research and technology into prosperity for the country, NRC works in collaboration with various other government departments in addressing critical issues such as sustainable economic development, sustainable natural resources, climate change, security and health care. These critical issues are aligned with key priorities of the federal government and guide NRC’s strategic direction as Canada’s RTO.

Our top 5 government department clients: National Defence, Natural Resources Canada, Transport Canada, Health Canada, and Environment Canada.



Our clients

top of mind

86% satisfied with
NRC's services

72% said NRC positively
impacted their organization

Source: 2013-14 NRC Clients Satisfaction Survey

Inspiring innovation and celebrating achievement

Like other world-leading RTOs, NRC invests in competencies, infrastructure and technology platforms that enable its researchers to remain ahead of the curve in their areas of specialty. As Canada's national RTO, NRC constantly scans for emerging disciplines for possible future investment to ensure ongoing relevance and value to Canadian industry.

In 2013-14, NRC achieved success at both the micro and macro levels. The organization supported business clients in securing more patent licenses, attaining greater sales, increasing exports and establishing a stronger presence in foreign markets. In addition, NRC made great strides across each of its four business lines toward improving Canadian productivity, accelerating economic growth and ensuring a higher standard of living.

Strategic R&D

HIGHLIGHTS

Rio Tinto, Fer et Titane

NRC marks 20 years of collaboration with leading titanium oxide supplier

In July 2013, NRC celebrated its 20th anniversary of collaborative agreement with Rio Tinto, Fer et Titane (RTFT), a Quebec-based supplier for the titanium oxide industry and a world-leading producer of high-quality pig iron, steel and metal powders.

Since 1993, NRC has made significant contributions to the success of RTFT's Quebec Metal Powders (QMP). Highlights include assisting in the development of soft composite magnetic materials, comprised of an iron powder shielded with an electric insulation, that save QMP time and money; new powder mixture technologies and additives that help improve the behaviour of powder mixtures and the properties of finished products; and a new electrostatic lubrication system to improve parts density, which in turn will reduce emissions during the sintering process, making the process more environmentally-friendly. These technological developments have led to major collaborative networks, numerous scientific publications and several international conferences. Moreover, QMP obtained eight technology patents,

one of which the company uses under the FLOMET™ trademark.

In addition to its ongoing work with QMP, in February 2014 NRC signed a five-year partnership with Rio Tinto Alcan to expand the use of aluminium in light vehicles and trains. This collaboration will reinforce local expertise in the aluminium industry and enhance Canada's competitive position in the global market.



TeraXion

NRC facilitates major milestone in rapid delivery of high-speed, cutting-edge modulators

Quebec-based TeraXion, a leader in the design and manufacturing of optical components and modules, partnered with NRC to develop an optical transmitter that sends information across the global optical fibre communications network at higher speeds than previously possible. Working at NRC's Canadian Photonics Fabrication Centre (CPFC), the collaborators developed TeraXion's new modulator products family, which includes its next-generation Indium Phosphide high-speed modulators for coherent transmission systems at 100 Gb/s and beyond. Together, NRC and TeraXion have consistently demonstrated this performance in 800+ devices.

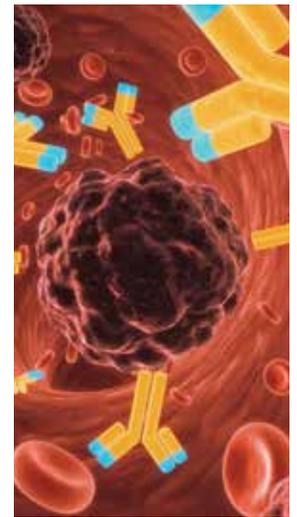
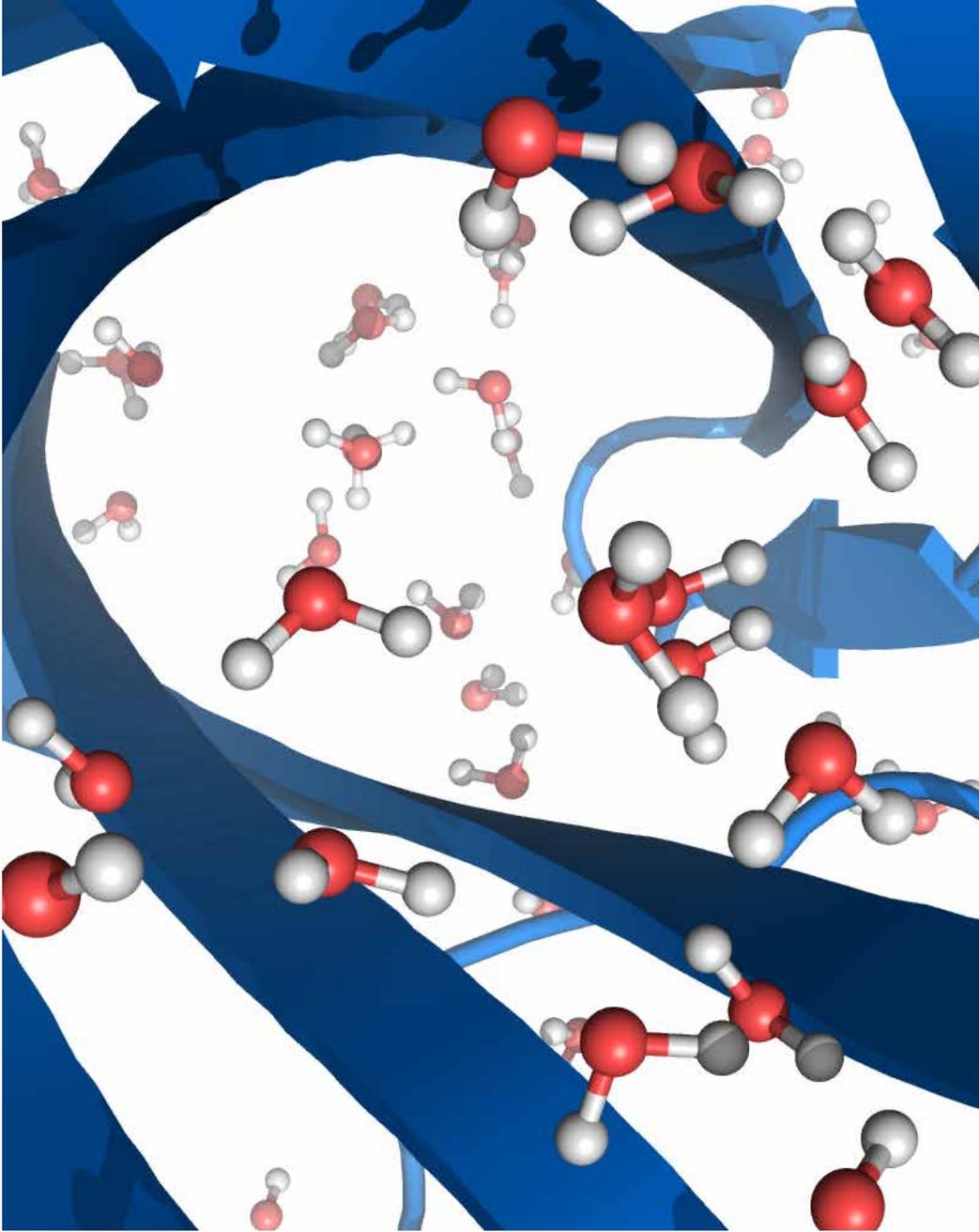
Such an impressive technical advance establishes TeraXion as a major player in the global telecommunications market and will allow telecommunications network operators to support the increasing demands of Internet and mobile communications users around the world.



“The NRC Canadian Photonics Fabrication Centre’s proven track record for bringing products to a commercialization level has been a key factor in our decision to rely on them as a partner.”

Alain-Jacques Simard,
President and CEO,
TeraXion





Zymeworks

NRC leads Canadian biotherapeutics company to innovation and international success

Working together since 2009, NRC Human Health Therapeutics (HHT) and Vancouver-based Zymeworks have addressed a significant pharmaceutical industry gap by engineering a molecular simulations platform to unite advances in protein biochemistry and high-performance computing. NRC has supported Zymeworks as it earned numerous innovation and life-science awards, secured multinational clients, attracted multimillions in financing (more than \$40M since June 2009), developed innovations and created Canadian jobs.

In 2013-14, after many technical agreements and NRC delivering 6,000 virtually-designed proteins, Zymeworks and HHT signed a three-year strategic collaboration agreement to co-develop biotherapeutics. Together, the partners contribute to de-risking and accelerating the therapeutics development cycle while minimizing costs and improving approval rates.



Image credit: Processing by Marshall Perrin, Space Telescope Science Institute and Franck Marchis, SETI Institute

“GPI represents an amazing technical achievement for the international team of scientists who conceived, designed and constructed the instrument, as well as a hallmark of the capabilities of the Gemini telescopes.”

Dr. Gary Schmidt,
Program Officer, National
Science Foundation

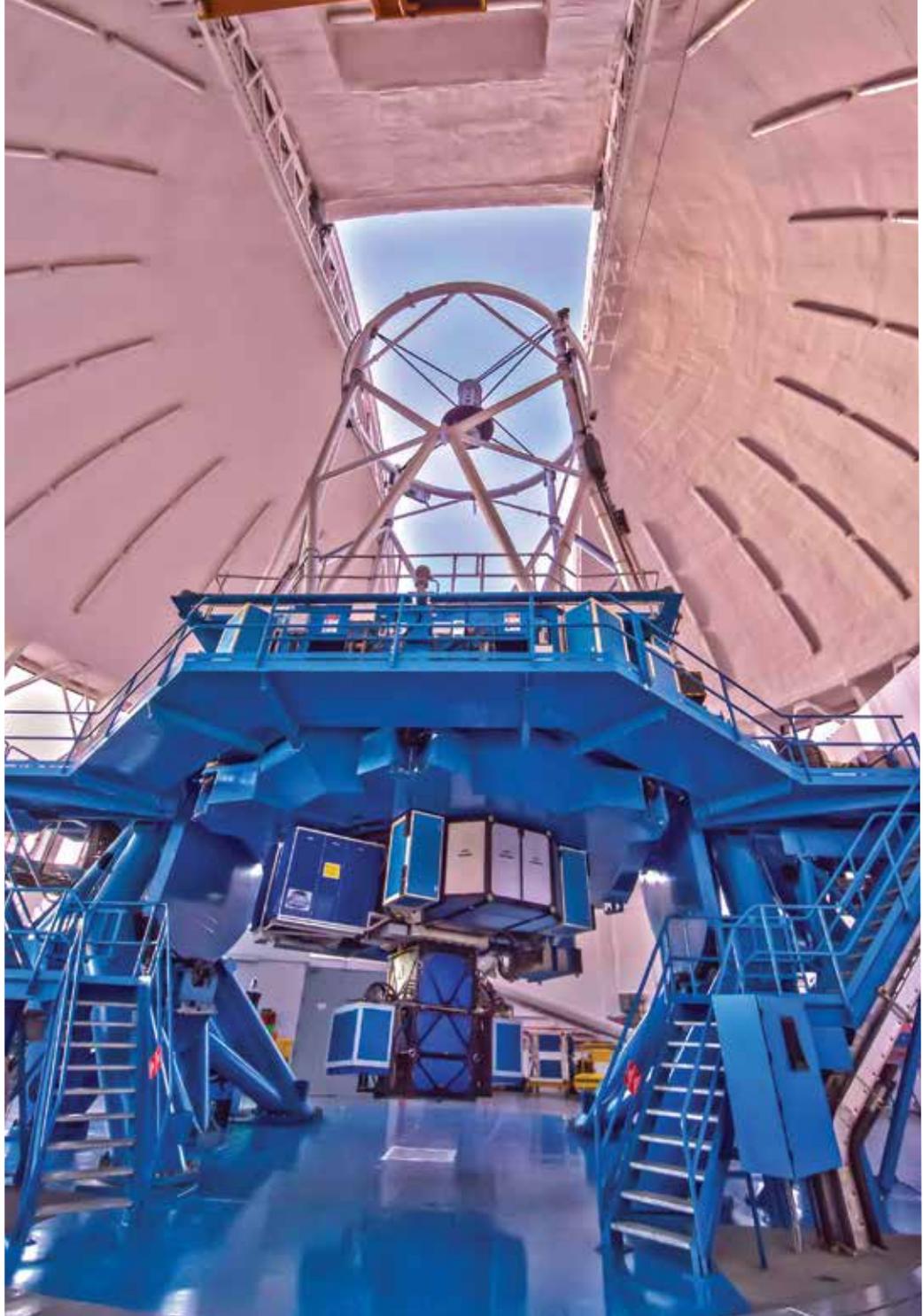


Photo: Gemini Observatory

Gemini Planet Imager

NRC Herzberg makes critical contribution to state-of-the-art telescope

The Gemini Planet Imager (GPI) was designed, built and optimized for imaging faint planets next to bright stars and probing their atmospheres. It is the most advanced instrument to be deployed on one of the world’s biggest telescopes – the 8-meter Gemini South telescope in Chile. GPI is the result of an international consortium that includes NRC Herzberg, which built the mechanical structure and software that unites all of the pieces together.

In November 2013, GPI carried out its initial observations in one of the smoothest first-light runs in Gemini’s history. The instrument made its official debut in January 2014. NRC is currently part of the team fine-tuning GPI’s performance on the Gemini South. With a camera that is over 10 times more sensitive than previous instruments, the GPI will be used in a broad survey of approximately 600 stars later in 2014 with the goal of discovering new planets located up to 230 light-years from Earth.

Goldcorp

NRC's laser technology boosts productivity and profitability of gold mining leader

Goldcorp, the fastest-growing, lowest-cost senior gold producer in the world, expects to grow gold production by another 70% within the next five years. Committed to responsible and sustainable mining, the Vancouver-based firm consistently seeks new technologies that bolster its productivity and profitability.

Working with Goldcorp since 2010, NRC has developed a novel technology that accelerates the gold assessment process: the Laser-Induced Breakdown Spectroscopy (LIBS) Analyzer. The technology enables Goldcorp to identify, map and measure gold content in real time. Going forward, Goldcorp, in partnership with NRC, is considering adapting the analyzer for other phases of the mining process, with a view to leveraging LIBS to continually improve the efficiency of gold exploration, development, extraction and processing.



“The information provided by the LIBS Analyzer helps us determine where to focus exploration activity and subsequent development. This contributes to the development of a stronger project pipeline, ultimately increasing Goldcorp’s growth potential.”

Stephen Price, Manager,
Technical Services,
Goldcorp

AXYS Technologies

NRC propels commercial success of Canadian environmental monitoring firm

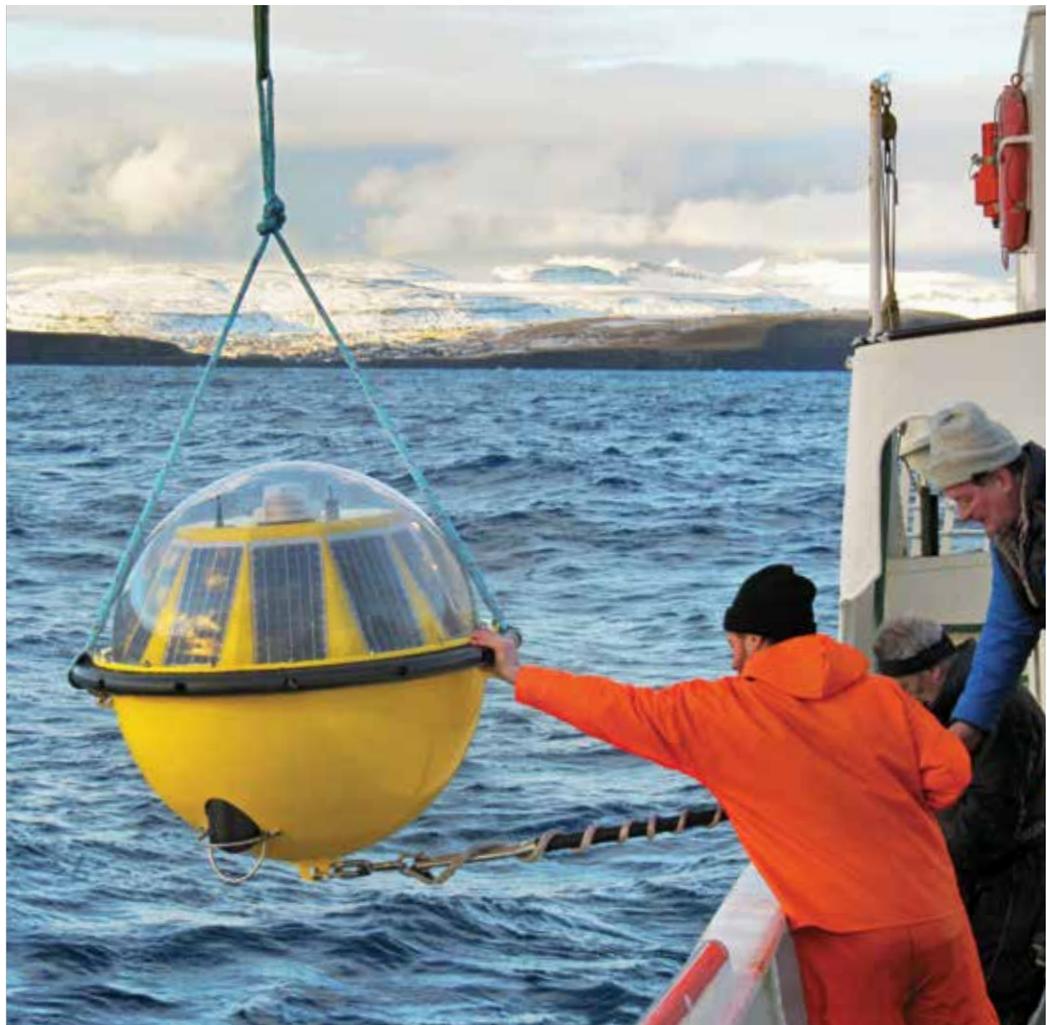
Based in Sidney, B.C., AXYS Technologies is a high-growth Canadian firm that designs and manufactures remote environmental data acquisition, processing and telemetry systems. The company approached NRC in the early 1990s for assistance in developing new marine technologies that would provide a variety of sectors – from fisheries to meteorology, natural resources, energy, transportation, security and environment – with reliable and comprehensive ocean data they require for decision-making.



The TRIAXYS™ sensor, a top-selling product that underpins the entire AXYS offering, relies on NRC's pivotal and novel algorithm that makes it possible to monitor waves from a floating platform. With this sensor in hand, the partners initiated development of a robust directional wave-monitoring buoy to house the sensor and enable reliable operation in the ocean. After completing a prototype, AXYS conducted demonstrations in NRC's large-scale wave tank to assess the sensor's performance in authentic ocean conditions. Building on the outcomes of this testing, the R&D team continually enhanced the product, celebrating its successful market launch in 2000. Throughout 2013-14, and beyond, NRC continues to collaborate with AXYS on product enhancements and the development of other ocean technologies, helping ensure the company's continued commercial success.

"We knew what we wanted to develop, and NRC provided the ideas, expertise and resources required to translate our vision into a market-ready product. Our collaboration with NRC accelerated the development of this product and helped us to secure initial customers around the world."

Harry Weiler, CEO,
AXYS Technologies



Technical and Advisory Services

HIGHLIGHTS

- Delivered 91 technical service projects for improving the operational effectiveness of public fleets while contributing to new and strengthened relationships with major defence and automotive suppliers in Canada.
- Successfully evaluated the designs and propulsion systems for Canada's new Polar Icebreaker, the Arctic Offshore Patrol Ship and the Joint Support Ship, which furthers operations in Canada's North.
- Successfully demonstrated and deployed NRC's RF-shielding concrete technology to protect a new high security facility.
- Provided pre-clinical development and testing support to help firms accelerate bringing innovative natural health products to market; developed methods that supported Saskatchewan's Bioriginal and POS Biosciences in delivering new high-value specialty oil products for the nutritional market; and worked with Ontario's Sevita International to develop a lab scale process to isolate protein and fibre from soybean waste streams.
- Simulated and validated new technologies for monitoring civil infrastructure and for building energy conservation; pioneered a novel remote-satellite approach to monitor bridge structures; and demonstrated innovative high-resolution lighting controls that conserve up to 25% in energy.
- Signed several technical service contracts with a Canadian SME developing a novel diagnostic instrument for use in laboratory settings, providing the company access to NRC's expertise in micro-fluidics and polymer substrate-based diagnostic chips; developing new applications and validating several design approaches in developing its products.
- Through NRC's scale-up production capability of Boron Nitride Nanotubes (BNNT), NRC provided Canadian companies with a head start in prototyping, manufacturing and commercializing products containing BNNT. Early applications are anticipated in Canada's defence and security sector, with integration of BNNTs into new advanced materials for such uses as lighter and transparent armour.



Industrial Research Assistance Program

HIGHLIGHTS

Camouflage Software

NRC-IRAP positions data security software developer for global success

Based in St. John's, Newfoundland and Labrador, Camouflage Software specializes in identifying and protecting classified or sensitive information during software testing, analysis and development. NRC's Industrial Research Assistance Program (NRC-IRAP) played a crucial role in helping the firm bring its innovative cybersecurity software to market, thereby maintaining its place at the forefront of the data security industry.

With support from world-renowned NRC-IRAP, Camouflage was able to secure large-scale multinational clients. The 20-employee software company is seeing revenues in the millions from Fortune 500 clients that include a huge aerospace corporation as well as healthcare conglomerates, financial institutions and governments. Going forward, NRC-IRAP will continue to collaborate with Camouflage on its product development with the goal of empowering the company to compete successfully on the world stage by being more streamlined and flexible than the IT giants.

"We have been working with NRC-IRAP for 10 years to conduct critical research and testing as we developed our product. Without that partnership we would not have been able to bring it to market and Camouflage would not be here today... NRC-IRAP's presence at our side during this crucial phase in our development also went a long way toward having other support agencies take us seriously."

Kevin Duggan,
President and CEO,
Camouflage Software





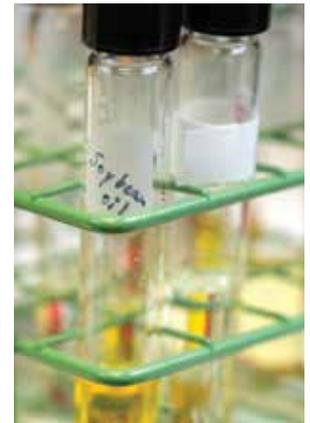
Agrisoma Biosciences

NRC-IRAP accelerates time-to-market for sustainable energy crop producer

In collaboration with NRC-IRAP, Saskatoon-based Agrisoma Biosciences has successfully demonstrated the commercial-scale cultivation and processing of *carinata*, an industrial oilseed mustard crop, and expects to bring new products to market in record time. Agrisoma has already converted *carinata* into biojet fuel, which was successfully used in 2013 by NRC in the world's first 100% biojet civilian flight.

With NRC-IRAP's support and cutting-edge technology, Agrisoma researchers have been able to introduce an innovative kind of breeding, called double haploid (DH), which enables them to quickly select the best genetic plant material for reducing glucosinolates in *carinata* meal.

The crop company can now get new *carinata* varieties to market twice as fast as previously able. Agrisoma and NRC-IRAP's achievements will now provide farmers in semi-arid areas of southern Saskatchewan and Alberta with more opportunities for cropping diversification and new revenue streams while also promoting a more sustainable biojet fuel that will help to reduce the aviation industry's carbon footprint.



“By the end of (the 2013-14) winter, we will have reached a throughput of 5,000 types of DH plants from which new varieties can develop. This is 4,000 more than we would have had without NRC-IRAP’s help. We view NRC-IRAP as one of our core supporters and we would not be here today without them.”

Patrick Crampton,
Vice-President of Business
and Product Development,
Agrisoma Biosciences



Building the future

together with Canadian Industry,
NRC is committed to providing leading-edge support
and dedicated to building economic competitiveness.

Scientific Infrastructure

HIGHLIGHTS

- NRC Herzberg's Canadian Astronomy Data Centre (CADC) delivered more than 22.4 million individual astronomy files to approximately 6,100 professional astronomers.
- Users of NRC astronomical data contributed to more than 480 scientific publications.
- 612 of NRC's calibration and measurement capabilities were formally recognized internationally.
- Contributed 81 scientific papers to the metrology literature, nine key strategic planning documents to international metrological associations and 1619 calibration and other reports to clients.

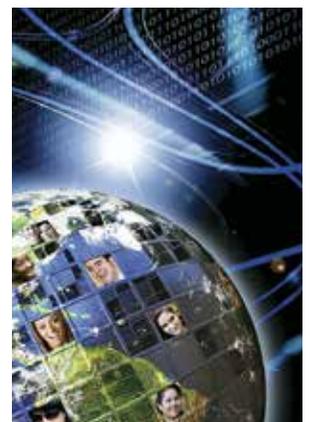


International

NRC continued its focus on strategic alliances (including with partners in Israel and France) and international networks (including EUREKA and CANNAPE – the Canadian Networking Aeronautics Programme for Europe).

These alliances and networks have helped NRC to enable more efficient technology development (acquire/develop/deploy) to increase productivity and competitiveness of Canadian businesses and to ease access to new, larger markets. For example, EUREKA is a proven tool for firms, especially small and medium-sized enterprises, to overcome the risks and complexities associated with entering R&D partnerships abroad. This can enable faster access to foreign markets and global value chains.

NRC further helped Canadian companies by developing international networks to ensure timely access to emerging technology and markets. Under EUREKA, Canadian firms engaged in international research and technology projects with firms in EUREKA member states. In 2013-14, 12 Canadian firms and 1 university entered into new technology partnering projects valued at over 13 million Euros (C\$20M).



Building blocks to organizational success

NRC is comprised of integrated R&D divisions that are guided by advisory bodies composed of industry leaders. Under these three umbrella R&D divisions, NRC has twelve consolidated portfolios focused on key industrial sectors. These portfolios represent areas of strategic importance and economic value for Canada.

This structure provides NRC with the ability to assemble cross-disciplinary teams and to quickly respond to emerging markets and industry needs.



Emerging Technologies

- **Information and Communications Technologies (ICT)** applies leading-edge expertise in software development, semiconducting materials and photonic device design and fabrication to design, validate, demonstrate and deliver both physical and software solutions that lead to new market opportunities for industries in Canada's information and communication technology sector. In this way, Canadian ICT industries will be well positioned to profit from ongoing and explosive data growth, and from escalating needs for greater connectivity and revolutionary ways to make decisions, synthesize information and discover new knowledge through computers.
- **NRC Herzberg** manages Canada's astronomical observatories, as mandated in the National Research Council Act, and compiles and disseminates astronomical data while leveraging access to international observatories for Canadian researchers in astrophysics.

- **Measurement Science and Standards (MSS)** investigates and determines standards and methods of measurement for Canada's national measurement system, thereby providing trading partners with confidence in the reliability of Canadian industries' measurements and test certifications of compliance to regulatory and product standards that govern trade. MSS also develops measurement standards for emerging technologies that open new global market opportunities for Canadian industries.
- **Security and Disruptive Technologies (SDT)** builds and validates emerging technology platforms (such as nanotechnology, quantum technologies, and the convergence of nano-, bio- and information technologies) that can be applied in a range of Canadian industries, helping to sustain and ensure global competitiveness by opening new markets and value networks.

In addition to mandated activities in astronomy and metrology, NRC's objective is to understand, anticipate and build capacity to address emerging markets essential to Canada's future industrial and societal needs.



Engineering



NRC's objective is to apply engineering solutions for industrial sector growth.

- **Aerospace** advances product and process technologies that leverage Canada's strengths and opportunities in the aerospace industry sector in Canada, which is striving to remain competitive in the face of thin margins and increasing regulatory demands.
- **Automotive and Surface Transportation (AST)** provides technical knowledge and advances product and process technologies for producing more fuel-efficient, affordable, environmentally responsible ground vehicles, and for delivering engineering solutions to complex technology challenges facing surface transport industries, including heavy vehicles and rail.
- **Construction** provides technical knowledge and advances product and process technologies to enhance the prosperity of Canada's construction industry sector, enabling it to deliver better performing and more affordable buildings and infrastructure while remaining competitive in the global marketplace.
- **Energy, Mining and Environment (EME)** develops and advances technologies and techniques for enhancing the innovation capacity and growth of Canada's natural resources and utility sectors.
- **Ocean, Coastal and River Engineering (OCRE)** develops and advances technologies and standards for safe, effective operations in Canada's vast ocean, coastal and river environments, including the Arctic.



Life Sciences

- **Aquatic and Crop Resource Development (ACRD)** develops improved varieties of crops, as well as technologies for maximizing crop value and converting biomass, thereby enhancing the prosperity and global market share of Canada's agriculture, bio-product and natural health product industry sectors.
- **Human Health Therapeutics (HHT)** develops vaccines and biologics that will enhance the prosperity of Canada's biotherapeutics industry and provide more effective health treatments to Canadians.
- **Medical Devices (MD)** applies expertise in biochips, nano-materials, micro-devices, *in-vitro* diagnostics, imaging, optical bio-photonics, medical simulation, radio-frequency engineering and electronics

to develop and advance technologies that will enhance the medical device industry as it strives to deliver equipment and supplies that are faster, more accurate, more informative, more affordable and less invasive.



NRC's objective is to apply technologies to market opportunities that create prosperity and improve quality of life in Canada.

NRC

Vision

To be the most effective RTO in the world, stimulating sustainable domestic prosperity.

NRC

Mission

Working with clients and partners, we provide innovation support, strategic research, scientific and technical services to develop and deploy solutions to meet Canada's current and future industrial and societal needs.



Senior Executive Committee

- Bogdan Ciobanu, *Vice-President, Industrial Research Assistance Program (NRC-IRAP)*
- Isabelle Gingras, *Vice-President, Human Resources*
- Patricia Mortimer, *Executive Vice-President and Secretary General*
- Michel Piché, *Vice-President, Corporate Management and Chief Financial Officer*
- Dr. Ian Potter, *Vice-President, Engineering and Business Management*
- Dr. Roman Szumski, *Vice-President, Life Sciences*
- Dr. Dan Wayner, *Vice-President, Emerging Technologies*

Council Members

- John R. McDougall, *President*
- Maurice Guitton
- Thomas Jenkins
- Jay Josefo
- Raymond Leduc
- Peter Vanexan
- Robert Warren
- David Wood

For more information on our collaboration opportunities and technical services or to get access to our leading technology equipment and unique research facilities, please visit us at: www.nrc-cnrc.gc.ca

NATIONAL RESEARCH COUNCIL CANADA

Financial Summary

The financial statements included in this annual report are excerpts of NRC's Consolidated Financial Statements and accompanying notes that can be found at www.nrc-cnrc.gc.ca.



Consolidated statement of financial position

AS AT MARCH 31

<i>(in thousands of dollars)</i>	2014	2013 <i>Restated</i>
LIABILITIES		
Accounts payable and accrued liabilities	141,150	167,560
Vacation pay and compensatory leave	28,978	31,699
Lease inducements	40,398	42,946
Deferred revenue	9,880	11,498
Lease obligation for tangible capital assets	–	75
Employee future benefits	52,163	67,241
Total liabilities	272,569	321,019
FINANCIAL ASSETS		
Due from the Consolidated Revenue Fund	271,642	290,720
Accounts receivable	30,195	30,641
Inventory for resale	2,932	2,843
Cash and investments	2,436	2,744
Total gross financial assets	307,205	326,948
FINANCIAL ASSETS HELD ON BEHALF OF GOVERNMENT		
Accounts receivable	(108)	(76)
Total financial assets held on behalf of Government	(108)	(76)
TOTAL NET FINANCIAL ASSETS	307,097	326,872
Departmental net (financial assets) debt	(34,528)	(5,853)
NON FINANCIAL ASSETS		
Prepaid expenses	11,170	12,883
Endowment fund investments	4,880	4,812
Inventory for consumption	4,005	4,375
Tangible capital assets	519,896	523,404
Total non financial assets	539,951	545,474
Departmental net financial position	574,479	551,327


 John R. McDougall, P.Eng.
 President

Ottawa, Canada
 June 26, 2014



Michel Piché, M.P.A., CPA, CMA, CIA
 Vice President, Corporate Management and Chief Financial Officer

Consolidated statement of operations and departmental net financial position

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2014 <i>Planned Results</i>	2014	2013 <i>Restated</i>
EXPENSES			
Manufacturing Technologies	149,269	128,962	135,514
Information and Communication Technologies (ICT) and Emerging Technologies	69,974	65,660	65,710
Industrial Research Assistance	275,399	281,744	248,285
Health and Life Sciences Technologies	98,904	91,253	87,423
Energy and Environmental Technologies	41,360	38,099	40,941
National Science and Technology Infrastructure	104,305	100,286	101,760
Scientific, Technical and Medical Information	22,158	23,467	21,106
Internal Services	216,915	204,046	212,384
Total expenses	978,284	933,517	913,123
REVENUES			
Research services	76,554	50,097	50,441
Technical services	80,895	77,892	79,530
Intellectual property, royalties and fees	11,704	9,357	8,455
Sales of goods and information products	9,150	5,878	4,422
Rentals	5,990	5,751	6,215
Grants and contributions	2,359	2,940	2,884
Lease inducement revenue	2,548	2,548	2,548
Other	505	2,003	649
Revenues earned on behalf of Government	(295)	(117)	128
Total revenues	189,410	156,349	155,272
Net cost of operations before government funding and transfers	788,874	777,168	757,851
GOVERNMENT FUNDING AND TRANSFERS			
Net cash provided by Government	708,983	774,580	647,434
Change in due from the Consolidated Revenue Fund	4,713	(19,078)	106,894
Services provided without charge by other government departments and agencies	53,349	44,998	46,498
Transfers from/to other government departments	–	(180)	(528)
Net cost of operations after government funding and transfers	21,829	(23,152)	(42,447)
Departmental net financial position – Beginning of year	525,831	551,327	508,880
Departmental net financial position – End of year	504,002	574,479	551,327

Consolidated statement of change in departmental net (financial assets) debt

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2014 <i>Planned Results</i>	2014	2013 <i>Restated</i>
Net cost of operations after government funding and transfers	21,829	(23,152)	(42,447)
CHANGE DUE TO TANGIBLE CAPITAL ASSETS			
Acquisition of tangible capital assets	30,778	58,737	45,135
Amortization of tangible capital assets	(62,375)	(58,493)	(61,058)
Proceeds from disposal of tangible capital assets	–	(1,665)	(173)
Net loss on disposal capital assets including adjustments	(1,638)	(2,380)	(126)
Transfers from/to other government departments	–	(168)	525
Other adjustments	–	461	(52)
Total change due to tangible capital assets	(33,235)	(3,508)	(15,749)
Change due to inventory for consumption	–	(370)	272
Change due to endowment fund investments	110	68	88
Change due to prepaid expenses	–	(1,713)	1,213
Net change in departmental net (financial assets) debt	(11,296)	(28,675)	(56,623)
Departmental net (financial assets) debt – Beginning of year	28,445	(5,853)	50,770
Departmental net (financial assets) debt – End of year	17,149	(34,528)	(5,853)

Consolidated statement of cash flow

FOR THE YEAR ENDED MARCH 31

<i>(in thousands of dollars)</i>	2014	2013 <i>Restated</i>
OPERATING ACTIVITIES		
Net cost of operations before government funding and transfers	777,168	757,851
Non cash items:		
Amortization of tangible capital assets	(58,493)	(61,058)
Transfers from/to other government departments	12	1,053
Net loss on disposal of tangible capital assets	(2,380)	(126)
Services provided without charge by other government departments and agencies	(44,998)	(46,498)
Impairment in value of equity investments	(26)	(129)
Other adjustments to tangible capital assets	461	(52)
Variations in Consolidated Statement of Financial Position:		
(Decrease) increase in accounts receivable	(478)	4,110
Increase (decrease) in inventory for resale	89	(418)
(Decrease) increase in prepaid expenses	(1,713)	1,213
(Decrease) increase in inventory for consumption	(370)	272
Decrease (increase) in accounts payable and accrued liabilities	26,410	(64,755)
Decrease in vacation pay and compensatory leave	2,721	3,413
Decrease in lease inducements	2,548	2,548
Decrease in deferred revenue	1,618	3,709
Decrease in employee future benefits	15,078	1,091
Cash used in operating activities	717,647	602,224
CAPITAL INVESTING ACTIVITIES		
Acquisitions of tangible capital assets	58,737	45,135
Proceeds from disposal of tangible capital assets	(1,665)	(173)
Cash used in capital investing activities	57,072	44,962
INVESTING ACTIVITIES		
Income from endowment fund investments	144	196
Awards granted from endowment fund	(76)	(108)
(Decrease) increase in CFHT cash and investments	(282)	89
Cash used in investing activities	(214)	177
FINANCING ACTIVITY		
Lease payments for tangible capital assets	75	71
Cash used in financing activity	75	71
Net cash provided by Government of Canada	774,580	647,434