



## NEWS RELEASE

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### Diving Deep with Big Data to Grow the Ocean Economy

Establishment of advanced computer analytics platform will help Atlantic Canadian ocean technology companies better compete globally



February 2, 2018 – Halifax, NS – Atlantic Canada Opportunities Agency

Investing in breakthrough ideas to generate value-added opportunities in resource-based industries helps to create a more robust, innovative economy. That is why the Government of Canada is supporting the creation of DeepSense, a leading-edge computing platform, to help grow the regional ocean economy. This unique, ocean research partnership between industry, academia and government will enable Atlantic Canadian companies to commercialize research and lead the way in the development of data analytics products and services that are sought after worldwide.

Andy Fillmore, Parliamentary Secretary to the Minister of Democratic Institutions and Member of Parliament for Halifax, on behalf of the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development and Minister responsible for the [Atlantic Canada Opportunities Agency \(ACOA\)](#), today announced a non-repayable contribution of \$5,979,010, through ACOA's [Business Development Program](#), to help [Dalhousie University](#) establish DeepSense and fund its operations for five years.

Hosted by the university's faculty of Computer Science, DeepSense will support intensive Big Data analytics projects with industry that will drive new business opportunities in the ocean sector. The project will also create a pool of highly qualified people with the technical skills necessary for the industry to grow, further developing Canada's reputation as a hub for ocean expertise.

Businesses will collaborate with scientists to develop their products and services using high performance computing infrastructure and personnel support provided by [IBM Canada](#), an in-kind contribution valued at \$9,838,000. Dalhousie University and the [Ocean Frontier Institute \(OFI\)](#) are also investing a total of \$2,133,151 in the project.



This funding builds on commitments made by the Government of Canada and the four Atlantic Provinces to drive economic growth through the [Atlantic Growth Strategy](#), with strategic investments in initiatives that build on the region's strong export potential, growing innovation network, and skilled workforce.

**Quotes:**

“Innovation is critical to economic success. Establishing an industry-leading analytics platform will help foster business innovation and the scaling up of small firms in Atlantic Canada by promoting technology transfer, and the commercialization of research and development in both emerging sectors and traditional resource-based industries of the ocean economy.”

- *Andy Fillmore, Parliamentary Secretary to the Minister of Democratic Institutions and Member of Parliament for Halifax*

“Atlantic Canadian companies are already pioneers in underwater acoustics, sensing and imaging, with products in demand in more than 90 countries worldwide. DeepSense will help these firms harness emerging technologies in data science, machine learning and advanced analytics to strengthen the region's competitive edge, attract more foreign direct investment and create jobs and greater prosperity for the middle class.”

- *Darren Fisher, Member of Parliament for Dartmouth-Cole Harbour*

“DeepSense will be instrumental in helping Atlantic Canada ocean businesses innovate, compete and succeed here in Canada and on the world stage. IBM is committed to supporting the development and commercialization of ‘made in Canada’ products and services, and we are proud that our technology will help bolster the region's position as a global hub for ocean expertise.”

- *Ayman Antoun, President, IBM Canada*

“Dalhousie is proud to be part of this unique ocean research partnership. By providing a platform that can be used by universities, industry partners and government to support intensive ocean data science research, DeepSense will help position Atlantic Canada as a leader in the ocean economy for years to come.”

- *Dr. Alice Aiken, Vice President Research for Dalhousie University*

“Growth opportunities across many verticals of the ocean sector require a previously unavailable capacity for data analysis. Canada, and Atlantic Canada in particular, is positioned to become a world leader with the introduction of DeepSense. This new computing platform will have the ability to provide industry with the information they need to make critical business decisions and help enable greater innovation in technology areas such as offshore open ocean aquaculture, ocean based energy development, and ocean conservation.”

- *Robert Orr, Managing Director of Cuna del Mar LP and Chair of the Board of Directors of InnovaSea Systems Inc. and its subsidiary InnovaSea Marine Systems Canada*



### Quick Facts:

- The global ocean economy is projected to increase to \$3 trillion (US) by 2030 according to the [Organization for Economic Co-operation and Development \(OECD\)](#).
- More than 75 percent of Canada's ocean economy is in Atlantic Canada.<sup>1</sup>
- The majority of Atlantic Canada's population lives in or near coastal communities where ocean-related activities make up 15 to 20 percent of the regional economy.
- Institutions in Atlantic Canada have significant ocean science and data science expertise with more than 1 in every 10 researchers focused on oceans.<sup>2</sup>
- Dalhousie University hosts the Ocean Frontier Institute (OFI), an international hub for ocean science with research partners on both sides of the North Atlantic. It was established in September 2016 through a historic partnership led by Dalhousie, Memorial University of Newfoundland and the University of Prince Edward Island.

### Associated Links:

- [Centre for Ocean Ventures and Entrepreneurship \(COVE\)](#)
- [Institute for Ocean Research Enterprise \(IORE\)](#)
- [Oceans Protection Plan \(OPP\)](#)
- [Atlantic Fisheries Fund \(AFF\)](#)
- [Nova Scotia Community College \(NSCC\)](#)

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<sup>1</sup> Stats Canada

<sup>2</sup> Institute for Ocean Research Enterprise <http://iore.ca/>



## Backgrounder:

### Project Description

#### Halifax, Nova Scotia

#### Dalhousie University

**ACOA Assistance: \$5,979,010, non-repayable through Business Development Program (BDP)**

**Total Project Costs: \$17,950,161**

- This project will help Dalhousie University establish a shared computer analytics platform to be known as DeepSense, and assist with its operation for five years. DeepSense brings together universities, industry and government in a unique research partnership to grow the regional ocean economy.
- More than 300 companies are doing oceans-sector business in Nova Scotia with more than 60 creating new, high-tech products and services.<sup>3</sup> The province's ocean tech products are in demand in more than 90 countries around the world, demonstrating global recognition of Nova Scotia's expertise in the sector.<sup>4</sup> Nova Scotia companies are pioneers in underwater acoustics, sensing and imaging.<sup>5</sup>
- The massive amount of data being accumulated by these sensors is not being used to its fullest capacity as most companies do not have enough computer power, nor the software applications needed to connect the data and scientific insights to commercial products.
- Ocean technology companies working with ocean and data scientists will be able to develop value-added software products for their customers, providing their clients with the capability to use and interpret data in new ways, as well as with enhanced data visualization abilities. This will help businesses expand their product lines, increase export opportunities and their ability to reach new customers.
- DeepSense will also provide a unique training opportunity in applied industry driven research and development for post-doctoral fellows and graduate students. This can attract international students to Atlantic Canada and will enrich the pool of technical talent with both analytics and ocean domain expertise necessary for the industry to grow.
- The DeepSense platform will build data analytics capacity in the ocean sector, attract investment opportunities, help generate wealth and create well-paying jobs.

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<sup>3</sup> Nova Scotia Business Inc.: Oceans <https://www.novascotiabusiness.com/business/oceans>

<sup>4</sup> [https://www.novascotiabusiness.com/sites/default/files/Ocean%20Tech Infographics 3May2017 Web.pdf](https://www.novascotiabusiness.com/sites/default/files/Ocean%20Tech%20Infographics%203May2017%20Web.pdf)

<sup>5</sup> Nova Scotia Business Inc.: Oceans <https://www.novascotiabusiness.com/business/oceans>