



14 International Place, Unit 103
St. John's, NL, Canada, A1A 0R6



February 21, 2020

Re: eDNAtec Inc. - Submission on Draft Regional Assessment of Offshore Oil and Gas Exploratory Drilling East of Newfoundland and Labrador

We would like to commend the review committee and their team for producing such a comprehensive report. It is an impressive analysis based on a vast collection of existing datasets. We are likewise impressed with the methodologies you employed to extract meaningful opinions from a highly diverse set of stakeholders.

We applaud the development of a GIS system that mirrors the Nalcor NESS system

We have felt for some time that there was a dearth of available aggregate data in the areas that have been addressed in the prototype you have developed, particularly for the biological layer. This system has the potential to be a compatible platform in which to store and visualize curated eDNA data. eDNA provides comprehensive biodiversity snapshots that are less expensive, safer and which use nondestructive sampling methodologies. This being the case, eDNA has the potential to provide deeper spatial and temporal insights (and therefore, trends) for the areas of interest.

The private sector must be included to advance technologies that expand our knowledge of the marine ecosystem

While the report highlights the ongoing development of some technical solutions to address gaps in the data, its focus is primarily on work being done by government departments and agencies. There is no mention of the work being done by the private sector to advance technologies that expand our knowledge of the marine ecosystem. We feel that this is a significant oversight and misses the opportunity to further build industrial capability in the region that will both produce better environmental data and economic benefits.

Lessons from Norway

Other oil producing jurisdictions are capturing the value of regulatory levers to advance innovation in their economies. For example, The Norwegian Environmental Agency has, as one of its guidelines, a call to operators to advance technology in support of environmental effects monitoring for offshore production facilities. In that jurisdiction, there are already privately funded projects underway to ground truth eDNA.

In the case of our Center for Environmental Genomics Applications (CEGA) based in St. John's, the principal investor is Exxon Mobil. Even though they are not legislatively required to incorporate eDNA results in their environmental monitoring they have chosen to contribute to the evolution of the technology.

Leveraging the Ocean Supercluster

The Ocean Supercluster (OSC) has identified environmental characterization as one of its central themes. The first project approved under OSC includes, as one of its objectives, improved mapping of marine habitats. This is a cross-sectoral project that has the participation of commercial fisheries (Ocean Choice International, OCI), the oil and gas sector (Petroleum Research Newfoundland and Labrador, PRNL) and an indigenous organization (Nunavut Fisheries Association, NFA). The spirit of engagement demonstrated by the project criteria of the Ocean Supercluster is not unlike that of the REA committee; yet, there is no mention of the research and development that is being advanced under the Ocean Supercluster initiative. If an evergreen approach is being taken, it would make sense that new datasets coming from emerging technologies will find their way into the new GIS platform.

We need a clearer picture of the marine environment

Any form of ongoing oversight should have, within its mandate, a responsibility for supporting the advancement of environmental technologies that offer the promise of providing more comprehensive and higher resolution insights into the marine ecosystem of the study area. There are already significant advances being made in the areas of remote sensing, biotelemetry, autonomous vehicles etc. that are yielding a clearer picture of the marine environment. Coupled with emerging advances in analytics and artificial intelligence, it is not inconceivable that improved predictive models will emerge in the near future.

We look forward to seeing the final report and resulting regulations. We agree that improving the effectiveness and efficiency of the environmental assessment process has significant benefits to all the stakeholders. It is, in fact, consistent with our mission.

Best regards,

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