

Speaking Notes for Scott Tessier, CEO, C-NLOPB
The Regulator's Perspective on Digitalization
Digital Offshore '23, Tuesday, November 28, 2023

I'd like to thank the organizers for putting together this forum and inviting me to participate.

Digitalization is an area of opportunity and concern for regulators worldwide -- we are uniquely positioned to either enable or stifle innovation, and the public expects us to hit the correct button every time.

The implications and effects of digitalization are significant across our entire mandate -- safety, environmental protection, resource management and local benefits.

The last time I spoke publicly about this topic was before the pandemic and a lot has changed in a few short years, including:

- the Russian invasion of Ukraine, which has underscored the precarious nature of energy security;
- an increased urgency worldwide for an expedited energy transition;
- the increased sophistication and success rate of cyber-attacks;
- the rapid advancement of artificial intelligence;
- planned expansion of our mandate to include offshore renewable energy development; and
- the upcoming, long-awaited transition to more performance-based regulations.

But our focus areas with respect to digitalization remain fairly constant. They are:

- cyber security;
- training and competency;
- local content;
- data management; and
- standards.

The Offshore Energy Digitalization Forum was created in response to a recommendation from the Oil and Gas Industry Recovery Task Force. That forum is a multi-stakeholder initiative of operators, the regulator, workers and industry associations focused on communications and information sharing.

Within the International Regulators Forum, with which many of you will be familiar, there is specific focus on digitalization through an "opportunity statement", a working group and strategic engagement with industry that is focused on:

- increasing industry attention and knowledge;
- management of risks and vulnerabilities;
- increasing cross functional standards and best practices;
- design practices that increase safety through system design considering human performance;
- more systematic sharing and application of lessons learned; and
- human factors in cybersecurity.

We no longer have to refer to cyber-attacks in other jurisdictions for lessons learned. I was on the Board of Trustees of Eastern Health when the provincial health care system experienced a significant, debilitating cyberattack.

Like health care, the energy sector is an attractive target for bad actors, as we've seen recently with Suncor and others.

Everyone here knows the escalating sophistication, complexity and frequency of cyber-threats require continuous vigilance and improvements to hardware, software and risk management.

So it comes as no surprise that within the C-NLOPB, cyber security is viewed as one of the top risks and a high priority.

The probability of a cyber-attack either on our own organization, or one leading to a serious incident offshore is real.

We all have to recognize and address the vulnerabilities of interconnected devices and systems and ensure barriers are in place to protect against cyber threats, and ensure plans are in place to minimize the effects of, and recover quickly from cyber-attacks that would otherwise compromise confidentiality or operational safety.

Information sharing is critical. It is difficult to transparently discuss gaps and vulnerabilities, but sharing lessons learned and best practices is key to staying ahead of the threats, just like in matters of occupational health and safety, well control and environmental protection.

And so, collective efforts such as this conference are important.

Training and competency remain pivotal in the digitalization realm. Even when we're all aligned on the processes and equipment involved in digital or remote offshore operations, we need to ensure that the people supporting and supported by those processes and equipment are competent.

Demographic challenges, the effects of the pandemic and the demand for skilled workers among various technology sectors have created the risk of a talent deficit.

Upskilling of the existing workforce and attracting new, diverse graduates are essential.

There is also an opportunity for increased diversification of the workforce with the transfer of jobs that have been traditionally done offshore to onshore.

That can create opportunities for those who previously would not have been able to work offshore, such as individuals with disabilities.

Investments in digitalization locally are critical if local suppliers are going to be more competitive here and in the global marketplace.

We are seeing that happen and it is very encouraging to see some impressive advancements and success stories in digitalization among our local supply community.

Sometimes cast as impediments to progress, regulatory requirements for local content actually serve as catalysts for local capacity building, which is in everyone's best interests.

The R&D and E&T expenditure requirements in the *Atlantic Accord Acts* have helped in establishing Newfoundland and Labrador as a world leader for innovative solutions in areas such as harsh environment operations, ocean technology and ice management.

But we have potential to do even better by doing even more at home.

As the curator of data under the *Atlantic Accord*, the C-NLOPB manages large and sensitive datasets generated through offshore operations from exploration, to development and production.

- the development and launch of a GIS-based Data and Information Hub, which facilitates public access to a vast volume of curated information - over 55,000 files; and
- the development and issuance of a new Policy for Disclosure of Digital Data and Information in 2021 -- a significant milestone, modernizing how we disclose public data.

Being the repository for regulated data provides a unique opportunity for us to facilitate widespread, uniform access to all non-privileged data and information housed by the C-NLOPB.

We are now focusing our efforts on our data management system, with a significant contract planned early in the New Year. This is a multi-year, multi-million dollar investment that will enable best-in-class data and information submission, protection and access.

This system will handle all components of operational engineering, geoscientific and technical subsurface data, with opportunities for environmental metocean data and future datasets, including those related to offshore renewable energy.

We also continue to progress the implementation of our Safety Oversight Management Information System (SOMIS) via Synergi Life.

As we continue the rollout of this system to operators, we expect increased efficiency and access to information, smoother two-way information flow, better follow-up and tracking of incidents, and enhanced analytics to identify areas of concern and assist in our prioritization and decision-making.

Access and availability of data and information are keys for maximization and use of advance analytics and possibly the use of generative artificial intelligence.

Our final focus area is standards, which are typically cherished by regulators and industry alike because they can help make all of our jobs simpler provided they are done well.

Generally, industry standards follow widespread use of a technology. So for leading-edge innovations like new digital technology, specific standards don't often exist.

It is often only when issues arise from adaptation of new applications or from their widespread use that standards are developed and formalized. In other words, standards often lag.

Advanced analytics and artificial intelligence can enable predictive maintenance, operations optimization and downtime minimization and represent a step-change in the industry.

It is critical though that standards are developed to govern their use, ensuring transparency and accountability in decision-making processes. Introduction of AI into safety critical systems needs to be carefully considered.

We all agree that in trying to solve one problem through innovation, we can't introduce an undue degree of risk or create new problems.

In addition to the previously mentioned Data Management System project, we have work ongoing in our corporate functions - Human Resources, Finance, Records Management and IT.

These projects will allow us to move from more historic on-premises systems and software to cloud-based environments, with the aim of more efficient workflows, increased accessibility to data/information for staff and improved processes and management of information.

We have transitioned our filing of security and financial responsibility instruments to an online filing platform.

Locally, we have eagerly been providing input and support to several digitalization and data-related initiatives, including ongoing and recently completed projects involving ERINL, TechNL and EnergyNL.

In closing, the C-NLOPB is acutely focused on the need to regulate in a way that enables the integration of technological innovations and digitalization within the industry.

We are committed to doing everything possible to progress innovation that leads to improvements in safety, security, environmental protection, local content, resource management and the availability of data and information.

We know that openness and collective efforts are keys to success -- keeping an open mind, an open dialog and knowing what's coming will allow for better understanding of new technologies, their benefits and their risks.

Thank you. I look forward to the upcoming panel discussion.