



**CRI**

Centre for Regulatory Innovation

## Regulators' Capacity Fund

Natural Resources  
Canada (NRCan)

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\$275,000

### *Risk-Based Inspection Planning Web Application*

Explosives are used in various industrial applications including oil and gas exploration, mining, and construction. Given the dangers of improper use, the *Explosives Act* was created and requires users of explosives to have a license, certificate or permit issued by NRCan to carry out certain activities. NRCan's Explosives, Regulatory and Business Services Branch (ERBSB) authorizes and licenses the use of explosives while overseeing a compliance inspection and restoration program where routine inspections are performed by ERBSB.

Currently, ERBSB can inspect close to 50% of the total possible sites (approximately 4,000 in total). To improve the administration of the compliance program, a risk-based inspection planning strategy was adopted to identify inspection sites based on the quantified risk of each site. Generating an annual inspection plan requires substantial managerial effort within ERBSB as the current planning system lacks integration with existing travel, financial and information management systems resulting in redundancies and inefficient, inflexible trip planning. Increased integration would allow for advanced analytics to support strategic decision-making and improved communication with stakeholders, ultimately resulting in a streamlined regulatory approval process.

To address this problem, NRCan worked with Code for Canada (CFC) to develop the inspection application prototype, projected to launch April 1, 2023. The prototype development consisted of engagement, business analysis, and application development. The engagement process involved a current state analysis, discussions with other government entities, and consultation with inspectors to elicit feedback on the plan. The business analysis was conducted in preparation for the development of the application and involved hiring a business analyst who created the official business case and the high-level technical requirements document. The majority of the specific business rules and the associated scripts were finalized and tested.

While the prototype application projected to streamline the regulatory approval process is the ultimate goal, NRCan also identified engagement with other federal organizations that carry out similar functions as an extremely productive project outcome. The engagement efforts revealed that the legacy information management and regulatory system currently used to store all inspection information does not align with the modernization of the organization and the integration required for a fully successful application. As a result of the project's lessons learned, it has been established that the modernization of the current infrastructure will be necessary to support and improve its functionalities, regulatory requirements, and stakeholder communications. Moving forward, NRCan hopes to be able to share their findings and data with other departments that are in the process of developing similar IT solutions.