

Streamlining Application Processing, Modeling Staff Capabilities, and Reducing Backlogs in the Public Sector



Digital Twin of an Organization (DTO) powered by Collaborative Business Planning (CBP)



Business Context

Nova Scotia Crown Lending Agency (NSCLA) is responsible for delivering multiple financing programs to support economic development, operating across diverse client segments and funding structures with varying risk, cost, and return profiles.

Like many lending organizations, NSCLA faced challenges with:

- Increasing demand for lending programs combined with heightened expectations for financial accountability, transparency, and effective capital deployment
- Limited visibility into end-to-end cost structures, resource utilization, and program-level financial performance across a complex portfolio of lending products

These constraints created a need for a more integrated, data-driven planning capability to support both operational execution and strategic financial decision-making.

Key Problem Statement

NSCLA lacked a unified model to:

- accurately simulate demand volumes, application processing workloads, and associated staffing requirements across lending programs
- understand the true cost-to-serve at the program and client level, including the impact of administrative effort, risk assessment, and ongoing servicing activities
- evaluate the financial and operational implications of changes in funding levels, program design, or economic conditions before implementation
- move beyond manual, spreadsheet-based budgeting processes that limited scenario analysis and reduced confidence in financial forecasts

CBP-DTO Solution Approach

NSCLA utilized a **Digital Twin of the Organization (DTO)** using **Collaborative Business Planning (CBP)**, supported by the **QualiWare platform** to create of a dynamic, constraint-based model representing their end-to-end lending processes. Key elements of the approach included:

- Modeling of key activities including application intake, adjudication, approval, funding, and ongoing portfolio management, capturing both operational workflows and cost drivers
- Integration of financial, operational, and staffing data from internal systems, supplemented by interviews and analysis of program delivery practices to ensure model accuracy and completeness

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- Configuration of the model to support scenario-based planning, enabling evaluation of funding allocation strategies, demand fluctuations, and staffing adjustments on both cost structures and service delivery performance

Key Capabilities Enabled by CBP

- **End-to-End Operational Visibility**
Single integrated model providing transparency into lending workflows, resource utilization, and cost drivers across all programs
- **Constraint-Based Planning**
Identification of bottlenecks in staffing, approval processes, and funding capacity impacting program delivery and turnaround times
- **Scenario Simulation**
Ability to test alternative funding strategies, demand scenarios, and staffing models to understand financial and operational trade-offs prior to implementation
- **Integrated Costing**
Activity-based planning linked directly to operational processes, enabling accurate cost-to-serve calculations and improved financial insight
- **Cross-Functional Alignment**
Shared planning framework aligning finance, program management, and operations around a single source of truth

Quantified Business Benefits

- Reduced operational and administrative costs through improved process efficiency and resource alignment
- Improved capital and labour allocation decisions by directing funding toward higher-impact programs with clearer financial returns
- Increased accuracy and confidence in budgeting and forecasting processes including labour restructuring for the next fiscal
- Faster, data-driven decision-making supported by scenario-based financial and operational insights

Implementation Timeline: ~ 2 months to operational DTO

- **Phase 1:** All-hands Lean Kaizen and Value Stream Mapping Workshop (1 week)
- **Phase 2:** Resource and demand alignment discovery and data collection (3 weeks)
- **Phase 3:** CBP-DTO model build and validation (3 weeks)
- **Phase 4:** Scenario analysis and stakeholder alignment (2 weeks)

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Why CBP for DTO?

- Purpose-built for **operational digital twin modeling**
- Combines:
 - Value Stream and Activity-Based Planning process modeling to support Lean
 - Resource planning based on Theory of Constraints (TOC)
 - Simulation of operational and financials flows for improved costing
- Enables **practical, executable DTOs** — not just conceptual models
- Proven in **complex, multi-faceted service delivery channels**

Key Benefits of CBP-DTO Modeling

- Clear visibility into **true process constraints and available capacity**
- Stronger foundation for **ongoing CI and operational optimization**
- Improved **alignment between operations and finance**
- Enhanced **operational and financial budgeting and forecasting accuracy**
- Ability to **cost service delivery and model future demand scenarios**

For more information

Assess your organization’s opportunity to improve capacity, reduce waster and increase throughput, and enhance costing accuracy using a DTO powered by CBP.

Visit: <https://cbp-software.com>

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