

# UNTAPPED POTENTIAL

## Mapping the Open Learning System

### THE Productivity Project —



CANADAWEST  
FOUNDATION



## PILOT SCOPE

In **Series 1—Productivity and People**, we present six compelling policy reports, each addressing this key question: **How can Canada drive productivity by optimizing its human capital?**

**Report 3** proposes an integrated human capital supply chain network. **Report 4** builds on the supply chain model and reviews the results of three complementary audits, providing a holistic snapshot of a region's human capital ecosystem.

- **Audit 1** analyzes twelve months of regional hiring data to isolate current and emerging priority competencies.
- **Audit 2** analyzes the region's existing competencies base, including postsecondary completion rates and fields of study.
- **Audit 3** analyzes existing certified and non-certified programming offered by the region's learning system.

The project team chose the **Calgary Metropolitan Area** as the pilot region for this study.

**Report 3** provides an overview of the pilot results. It is complemented by a comprehensive technical guide to allow economic regions to complete their own human capital audits.

# 1<sup>ST</sup>

Canada ranks highest among OECD countries for postsecondary completion

**Education is not preparation for life; education is life itself.**

— John Dewey

# 18<sup>TH</sup>

Canada ranks 18th in labour productivity among OECD countries

# KEY INSIGHTS

## A REGIONAL CHALLENGE

The Calgary region has a vast learning system incorporating 3,063 organizations delivering 30,870 programs across the for-profit, non-profit, and public sectors. Of these organizations, 75 percent are for-profit and non-profit, and three-quarters are headquartered in this region. Only seventeen percent of the system is directly within the provincial domain. The result is a highly fragmented system lacking a shared purpose and the underlying mechanisms to optimize these thousands of experiences into a harmonized system. Therefore, regional leaders are accountable for transforming these thousands of isolated experiences into an integrated regional system with a shared purpose.

## LEGACY INDUSTRY IMPACT

Calgary has a learning system optimized to support oil and gas and associated sectors. This has several direct and indirect implications for the learning system:

**Lags Peer Regions:** Though highly educated, Calgary's labour force lags behind peers in postsecondary credentials.

**Compensation Premium:** Calgary has the highest proportion of STEM (science, technology, engineering, and math) graduates in Canada. However, this is more accurately defined as E-STEM

(energy-related STEM). This sectoral expertise can be traced to a premium paid for those in this sector, which then cascades to a premium paid to roles outside the sector who must compete for this human capital. This premium is a structural barrier for individuals to invest in the competencies required to transition into a new sector.

**Adaptive Capacity:** Calgary's strength in E-STEM contributes to a significant gap in professional areas related to arts, design, social services, humanities, and social sciences, including psychology, marketing, and economics. These fields provide an essential foundation for developing the enabling competencies that anchor adaptive capacity.

**Internal Learning Capacity:** At twenty-five percent, Calgary has the lowest proportion of individuals attaining their credentials in the current province where they reside, compared to six peer regions. Concurrently, Calgary has the highest proportion of citizens who completed their credentials in another jurisdiction. This reflects the sizeable inward migration of human capital over the past two decades and a dependency on other jurisdictions to develop the region's competencies. The region faces increasing pressure to expand the regional learning capacity to close the gap between the region's current base of competencies and emerging demand.

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# 3,063

learning providers are active in the pilot region

# 30,870

programs are offered annually by learning providers in Calgary

# 85%

of learning is estimated to result in no formal certification

## THE FUTURE IS HORIZONTAL

The competencies with the highest demand by employers provide the maximum adaptive capacity – enabling and functional competencies. Both enabling and functional competencies run horizontally across the economy, providing the maximum agility to individuals and organizations. In contrast, demand for sectoral expertise depends on macroeconomic factors that expose individuals (and, more broadly, the city) to externalities. Moreover, individuals who define their professional identity as anchored to narrow sectoral expertise face the daunting task of redefining themselves in periods of weak demand. However, the audit found that the current learning system sampled in this audit is not optimized to deliver adaptive capacity.

**Enabling Competency Gap:** Enabling competencies allow individuals to transition across various contexts (e.g., problem-solving, collaboration, communication). The competency demand audit found that the demand for enabling competencies is twice that of task-specific competencies. However, it also found that Calgary lags its peers in explicitly developing enabling competencies. This includes areas related to listening, numeracy, and adaptability, highlighting an opportunity to increase the explicit development of enabling competencies.

**Functional Agility:** Task-specific competencies are divided into sectoral expertise and functional competencies. Sectoral expertise is the application of unique competencies valued at a sector level. In contrast, functional competencies are associated with a job-specific task (e.g., accounting, welding) and are valued across sectors and organizations. Depending on the industry, the demand for functional competencies is between two and seven times that of sectoral expertise.

## THE CERTIFICATION OPPORTUNITY

This audit found that over 80 percent of programs do not have a certification path. Moreover, competency certification in Calgary is limited to educational and professional certifications. This lack of competency certification acts as a systemic barrier to facilitating increased economic mobility in historically marginalized socio-economic groups.

## THE INCUMBENT ADVANTAGE

Adaptive competencies are anchored in highly personalized, purpose-based learning. Purpose-based learning puts the individual at the centre. However, this audit highlights structural barriers to adopting purpose-based learning. Calgary's vast collection of programming is best characterized as the Internet before Google. The content individuals seek may exist, but it is impossible to locate efficiently. Instead, individuals are confronted with infinite programs that may or may not align with their learning goals. No consistent or structured navigation tool exists to efficiently compare learning opportunities relative to goals. Moreover, this audit found that most programs do not articulate a defined audience, making it difficult for individuals to understand how these programs may align with their needs. In addition, the results suggest that few new regional learning providers have launched and been sustained over the past decade. This may result from a structural advantage for incumbents (e.g., colleges) as individuals face thousands of learning opportunities. Individuals may be attracted to an incumbent as a "haven" rather than the upstart competitor innovator.

# WHERE TO START

This pilot study identified four foundational strategies as the first step to optimizing a regional human capital ecosystem. For a step-by-step guide to conducting this study in your region, refer to Report 2, The Technical Guide to Mapping the Human Capital Ecosystem.

## STRATEGY 1: ESTABLISH A TALENT BACKBONE

This study identified a complex regional human capital ecosystem composed of learners, learning providers, employers, credentialing bodies, and policymakers. In a global competition for talent, this ecosystem must be optimized to develop and deploy human capital. To do so, the study team recommends establishing a regional human capital backbone organization accountable for developing human capital to deliver on the region's defined goals.

## STRATEGY 2: EMPOWER LEARNERS

Purpose-based learning empowers learners to explore and experiment across the open learning system, including certified, non-certified, and informal systems. Although the audit identified 30,870 programs, serious structural barriers remain for learners to leverage the system. To overcome these barriers, regions must develop open and ubiquitous digital navigation tools to facilitate exploration and experimentation. These would include tools to support the development

of a personal and professional mission, which embed the capacity to navigate and identify learning paths that align with their mission.

## STRATEGY 3: DECOUPLE LEARNING AND CERTIFICATION

The study team recommends regions introduce a decoupled certification system to create a more open learning system and labour market. Decoupled certification is when the assessment of competencies is decoupled from prescribed learning pathways. The principle of decoupling learning processes from competency certification is widely recognized today. This includes competencies ranging from accounting to skilled trades to motor vehicle licensing.

## STRATEGY 4: HARMONIZE ENABLING COMPETENCIES

The study team recommends prioritizing enabling competencies to accelerate the labour force's adaptive capacity. The first step forward would be adopting a harmonized enabling competencies taxonomy, associated measures, and decoupled certification.

# AUTHOR TEAM

Dr. David Finch, *Mount Royal University*  
Dr. Gini Weber, *Mount Royal University*  
Janet Lane, *Canada West Foundation*  
Dr. Nadège Levallet, *University of Maine*  
Dr. Norm O'Reilly, *University of New England*

Dr. Sharon McIntyre, *New Cottage Industries*  
Jeff Griffiths, *Canada West Foundation*  
Dr. Simon Raby, *Mount Royal University*  
Dr. D'Andre Wilson, *Calgary Economic Development*

Refer to the full report for references. All Series 1 reports are available at [ProductivityProject.ca](https://ProductivityProject.ca)

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