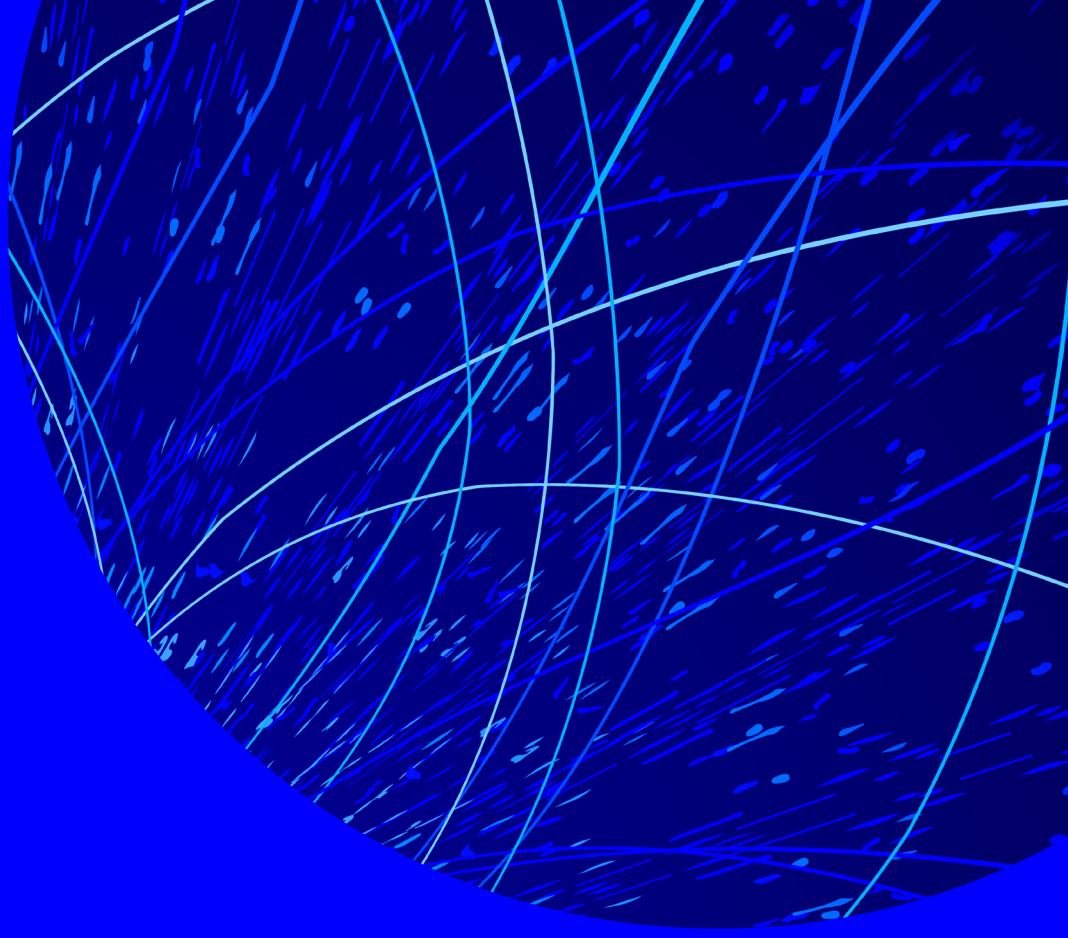
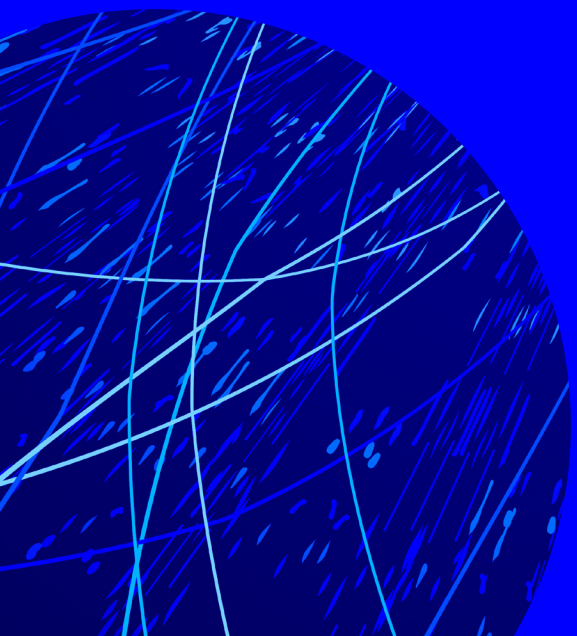


FUTURE SKILLS CENTRE

Annual Evidence Report 2020



December 2020

Blueprint

ACKNOWLEDGEMENTS

We would like to thank our colleagues at the Future Skills Centre for collaborating with us on this report. It is a reflection of what we have learned as we work together to create a more innovative and evidence-informed skills development ecosystem.

We would also like to thank our partners at Project Evident and The Centre for Implementation whose work has been integral in shaping our evidence generation strategy for the Future Skills Centre.

This report is funded by the Government of Canada's Future Skills program.

EXECUTIVE SUMMARY

The Future Skills Centre (FSC) was established in 2019 to foster initiatives that strengthen Canada's skills development ecosystem to equip Canadians with the skills, knowledge and tools they need to thrive in a rapidly changing economy. As one of its founding consortium partners, Blueprint leads FSC's evidence generation strategy.

Since FSC's launch, we have embarked on a learning journey to explore, develop and test new approaches to evidence generation. We have been developing an approach to evidence generation that can:

- Support *innovation* in skills development
- Generate rigorous evidence to support the *scaling of effective models*, and
- Build a culture of *evidence-informed decision-making.*

This report is a reflection on the first leg of this learning journey. In its first full year of operation, FSC funded 16 skills development projects across Canada. They have provided us with an opportunity to begin developing and testing our approach to evidence generation. This report provides an overview of what Blueprint has learned, and charts a future course for our evidence generation strategy.

Where we started

FSC's mandate is to foster innovation in skills development. At the same time, FSC is tasked with generating rigorous evidence that can be used to improve our skills development policies, programs and practices.

Blueprint set out to develop an evidence generation approach that was aligned with these goals. We knew we would have to move away from traditional approaches to evidence generation, which are often slow-moving and place little emphasis on innovation. We knew we wanted to take an approach that would generate timely, actionable insights that are relevant to policy and practice.

Within this context, Blueprint developed an approach to evidence generation that has three key features:

- **Design fit-for-purpose evaluations:**
  Implement evaluation approaches that align with the objectives and stage of development of each project
- **Use a multidimensional approach evidence:**
  In addition to evaluating project results, generate evidence on how projects are implemented to identify what factors enable and hinder success
- **Support learning and improvement:**
  Identify opportunities for continuous learning to help projects adjust and make improvements

What we have achieved

Blueprint has worked closely with the first 16 skills development projects funded by FSC to apply our evidence generation approach. These projects are testing innovative skills development approaches with a range of industry sectors and target populations. The projects have been deeply impacted by COVID-19, with 13 out of 16 experiencing delays to project timelines due to the pandemic. Despite these challenges, all projects are moving ahead, with many projects successfully transitioning from in-person skills training delivery to online delivery.

We have collaborated with project partners to design fit-for-purpose evaluations that align with their needs, goals and context. For each project, we held discovery workshops that deepened our understanding of the projects' goals and objectives to inform the design of our evaluation plans.

Where appropriate, evaluation plans include measurement of a set of *common outcomes* to ensure the comparability of evaluation results across projects. For projects focused on building and testing new tools rather than delivering a skills development intervention to participants, our evaluations incorporate a developmental lens focused on developing real-time insights about success factors and challenges.

We have gained some valuable insights from our experience working with the first 16 projects:

- **Variation in each project's stage of development:** While some projects had well-codified models and clearly defined outcomes, others were in the early stages of design and implementation planning. This highlights the need for a diverse toolkit of evidence generation approaches that align with a project's stage of development.
- **Importance of pursuing multi-dimensional evidence generation:** Our project partners demonstrated appetite and interest, but less familiarity, with the multiple dimensions of evidence generation that are relevant to scaling and broader impact. These include implementation quality, user demand, and value for money.
- **Need for capacity building and technical assistance:** We learned that many projects could benefit from targeted capacity building and technical assistance to develop, design and test innovative models.

Where we are going

Building on our learnings from the first 16 pilots, we have identified areas where we want to create new tools and frameworks and build our expertise to strengthen our approach to evidence generation.

A. **Align evidence generation with the innovation cycle:** Going forward, we are developing a more systematic approach for understanding a project's stage of development and applying evidence generation activities that are appropriate and relevant for that stage. Knowing where a project is in the *innovation cycle*, we can ask the right questions and collect the right evidence to help move the project forward.

B. **Provide technical assistance and capacity building:** We are building and testing a new framework that provides guidance on how to build the evidence needed to move a project from initial testing, to rigorous evaluation, to broader scaling and impact.

C. **Develop a framework for multidimensional evidence generation:** Going forward, Blueprint and FSC are formalizing approaches for working closely with our project partners to help them execute on their project plans, achieve their objectives and learn along the way.

Overall, our experience working with the first 16 FSC projects has demonstrated the importance of learning, reflecting, and improving, both for the pilot projects with which we are working and our own approach to evidence generation. By pursuing these new directions, we are positioning ourselves to generate the evidence needed to help FSC strengthen Canada's skills development ecosystem.

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A LETTER FROM THE EXECUTIVE DIRECTOR

Building an agile and responsive skills ecosystem in Canada requires more and better evidence about innovative approaches to skills development and training. At the Future Skills Centre, we are working with stakeholders across Canada to test new approaches for equipping Canadians with the skills they need to thrive in a rapidly changing economy and share in Canada's prosperity.

Our vision for this work is ambitious: We want to generate and mobilize evidence to help create a more responsive, effective and coordinated skills development ecosystem.

Our partner, Blueprint, has spearheaded the development of an evidence generation strategy that will help us achieve our vision. This report outlines how we have designed, tested and refined this strategy. It provides the context and vision for our evidence generation approach, shares some of the most important lessons we have learned, and provides updates on our ongoing work to refine our approach and build our evidence generation toolkit.

We are excited to share with you what we have achieved, what we have learned and where we want to go next.

Our hope is that this report is a jumping off point for an ongoing conversation about how we, our partners and stakeholders can work together to make our vision a reality.

Pedro Barata

***Executive Director,* Future Skills Centre**

INTRODUCTION

The Future Skills Centre (FSC) was founded in 2019 to foster innovations that strengthen Canada's skills development ecosystem by equipping people with the skills, knowledge, and tools they need to thrive in a rapidly changing economy. As one of FSC's founding consortium partners, Blueprint is the lead on FSC's evidence generation strategy. In this role, we aim to:

- **Generate evidence to support innovation:** Use data to support experimentation and learning about new skills development approaches
- **Support scaling decisions:** Generate rigorous evidence that supports replicability and scaling of the most promising models to contribute to a more agile and responsive skills development ecosystem
- **Build a culture of evidence-informed decision-making:** Work with stakeholders to build capacity for data-driven learning and continuous improvement

Achieving these ambitious goals requires using data and evidence in new and creative ways. Since FSC's launch we have been on a learning journey to refine our approach. This report is a reflection on the first leg of this learning journey. By sharing what we have learned we hope to contribute to a broader conversation about what it takes to drive evidence-informed change in our policies, programs and practices.

This report focuses on what we have learned from applying our evidence generation approach to the first set of projects funded by FSC. In its first full year of operation, FSC funded 16 skills development projects across Canada, which spanned a range of industry sectors and target populations. We have worked with these projects to design, implement and adapt evidence generation strategies that support learning.

This report is the first in a series of Annual Evidence Reports that will share insights and results from our evidence generation activities. Given that the delivery and evaluation of the first 16 projects funded by FSC are still underway, this report does not contain any evaluation results. Our future Annual Evidence Reports will include results from our evidence generation activities.

This report was developed by Blueprint in close collaboration with FSC.

BOX 1 ABOUT THE FUTURE SKILLS CENTRE

FSC is a forward-looking organization that prototypes, tests and measures new and innovative approaches to skills development and training.

It is passionate about building a resilient learning nation, backed by an agile and responsive skills ecosystem that equips everyone with the skills they need to thrive in a rapidly changing economy and share in Canada's prosperity.

As a pan-Canadian organization, FSC works with partners across the country to understand how global trends affect the economy, and to identify what skills working-age adults need to thrive within an ever-evolving environment. It tests and measures innovative approaches to skills development and training to learn what works.

FSC is funded by the Government of Canada's Future Skills Program and was founded as a partnership between Ryerson University, Blueprint and the Conference Board of Canada.

BOX 2 ABOUT BLUEPRINT

Blueprint collaborates with leaders across Canada using evidence to bring clarity to complexity.

We help decision-makers use real-time, real-world evidence to create innovative solutions that drive change and improve the lives of Canadians. Our pragmatic and rigorous approach enables our team to design, execute and evaluate strategies that create meaningful – and measurable – change.

Our team brings together a multidisciplinary group of policy professionals, economists, social scientists and project managers who share a commitment to creating a world where evidence and innovation are used to build better systems and policies, and to improve lives.

1. Where we started

FSC's mandate is to foster innovative approaches to skills development that equip individuals with the skills they need to succeed in a changing labour market. To achieve this mandate, FSC is working to foster a culture of innovation in the skills development ecosystem. At the same time, FSC is tasked with generating rigorous evidence about what works and mobilizing this evidence to improve skills development policies, programs and practices. In 2019, Blueprint set out to develop an evidence generation strategy that was aligned with these goals.

As the evidence generation lead for FSC, we recognized that we needed an approach to evidence generation that aligned with both aspects of FSC's mandate – *fostering innovation and generating evidence*. Our approach needed to generate evidence about what models could be impactful at scale and how these models can be continuously adapted to optimize their effectiveness. We recognized that this would require us to move beyond traditional approaches to evidence generation.

Limitations of traditional approaches to evidence generation

Traditional approaches to evidence generation focus on rigorously evaluating models to find out *what works.* These approaches categorize interventions into different "tiers" associated with levels of evidence. These tiers are based on a hierarchy of evidence that promotes findings generated by randomized control trials (RCTs) over other methods.

Generating rigorous evidence through evaluation methods like RCTs requires implementing well-developed models that have clearly defined outcomes. Traditionally, many grant-making institutions in the social sector have funded the delivery of these models and included prescriptive evaluation and measurement requirements as a condition of receiving funding.

This approach has some important limitations in the context of an innovation mandate. To help FSC foster innovation, our evidence approach needs to:

- **Encourage new ideas** – Traditional approaches to evidence generation can disincentivize stakeholders from proposing innovative and future-focused ideas. Many ideas that are truly novel do not have a well-developed program design and outcomes are likely to be uncertain or hard to define. By choosing only to fund models that are already well-developed and can be evaluated using traditional methods, funders can discourage stakeholders from proposing new ideas.
- **Move quickly** – Rigorous impact evaluations often take many years to complete. In the time it takes to complete an impact evaluation, labour market conditions could have evolved to the point where the skills targeted by a program are no longer relevant. FSC needs a nimble approach to evidence generation that provides insights on shorter timelines.

- **Emphasize learning** – Traditional evidence approaches generally do not provide the information needed to learn how or why a model is working and what adjustments could be made. The focus on "what works" means that there is less focus on "how can we learn and improve." For skills development practitioners who are eager to ensure that their models are responsive to changing labour markets, there is a need for more actionable evidence that can inform their decision-making.

In addition to asking *what works* we need to ask *how can we learn and improve?*

- **Pay attention to implementation and scaling** – Traditional approaches often make the assumption that models that demonstrate positive results through an evaluation can produce similar results as they are scaled and replicated. In reality, many promising models fail to replicate results when they are implemented in new contexts. Moreover, many models that demonstrate positive results in an initial pilot study do not meet criteria needed for broader scaling including value for money and user demand. To generate evidence that can contribute to meaningful changes to our skills development systems, we need approaches that will help us understand how to translate effective results into broader scale and impact.

Our current skills development ecosystem operates primarily around this traditional approach to evidence generation. Skills development stakeholders are used to receiving funding to deliver well-defined models and participating in evaluations that prioritize rigorous measurement of results. participating in evaluations that prioritize rigorous measurement of results.

Developing our approach

To fulfill FSC's mandate, we recognized that we needed to build and test a new approach to evidence generation that would prioritize learning, experimentation and continuous improvement. We were inspired by the work of other evidence organizations in the social sector that are experimenting with new ways of using data and learning to support innovation and scaling.

Building on these emerging trends, we identified *three key features* of our evidence generation approach that would set the foundation for our evidence generation activities.

To meet the skills needs of the future we need an evidence generation approach focused on experimentation, rapid learning and improvement.

Design fit-for-purpose evaluations

From the outset we have worked closely with project partners to design evaluation plans that are aligned with the project's purpose, context and goals. This approach recognizes the importance of matching evaluation design to the project's development stage and learning goals.

Build a multidimensional approach that considers replication and scale

We knew that in addition to generating evidence about effectiveness, our approach needed to consider other factors that are relevant to understanding how a project can grow from an initial idea to a full-scale model, such as implementation quality.

Support learning and improvement

Our approach has sought to move away from one-off evaluations of program results to an approach that supports continuous learning and improvement. We have worked with project partners to develop evaluation plans that include early measures of how well a project is working, which partners can use to iterate and improve their models. Our approach includes feedback loops and active engagement with partners to reflect, interpret and act on evaluation findings and make course corrections.

How we work

We recognized that moving away from traditional approaches to evidence generation would influence the way that we needed to "show up" in our role as the FSC evidence generation lead.

Embrace the learning journey

While we were inspired by trends and practices from other organizations, we realized early on that there is no clear roadmap for our work. Developing an evidence generation strategy that will help us foster innovation and generate rigorous evidence is a complex undertaking. We knew that we would need to embrace the opportunity to develop, test and iterate new tools, frameworks and methods in real time.

Collaborate and build trust

Traditional approaches emphasize the role of evaluators as objective, critical and arms-length assessors of a model's effectiveness. Our focus on co-design, learning and improvement requires us to also collaborate closely with project partners and build strong and trusting relationships. As the evidence generation lead, we consider ourselves a "critical friend" to our project partners. We work closely with our partners to ensure we have a deep understanding of their needs and goals, co-design evidence approaches that align with their objectives, and provide honest and constructive advice.

Be flexible and pragmatic

Developing and delivering innovative approaches to skills development often requires navigating a high degree of uncertainty and ambiguity. Many of the project partners we have worked with have encountered unforeseen obstacles or delays in implementing their interventions. We have worked with partners to adapt our evaluation plans and make pivots to data collection strategies, timelines, and other aspects of our evaluation plans wherever needed.

2. What we have achieved

In its first full year of operation, FSC funded 16 skills development projects across Canada, which spanned a range of economic sectors and target populations. These projects are developing and testing new approaches to help individuals build the skills they need to succeed in a rapidly changing labour market.

While many of the projects are still in their early stages, they have provided Blueprint with the opportunity to begin testing our evidence generation approach. Working alongside our project partners, we have developed and implemented evaluation plans designed to generate meaningful and relevant evidence about their effectiveness.

About the pilot projects

The 16 pilot projects include:

- Six projects that were solicited through targeted stakeholder engagement and focus on a range of skills development innovations (launched in February 2019)
- Ten projects funded through a targeted call focused on skills development innovations to help fill gaps in training opportunities for mid-career workers (launched in July 2019)

The projects span a wide range of geographic regions, target populations and types of interventions. All 16 initial pilot projects received funding for two years meaning that project activities are still underway.

The projects address a range of themes related to skills development:

- **Training for under-represented groups** – Delivering training to help build the skills of groups underrepresented in the labour market
- **Post-secondary innovation** – Collaborating with institutions to develop and test new models
- **Demand-informed sector-based training** - Delivering sector/occupation-specific training that aligns with employer demand
- **Supporting mid-career workers** – Delivering reskilling to help workers transition or upskilling to help workers keep jobs

While the projects were originally expected to be completed in the spring or summer of 2021, 13 of the 16 projects have extended their timelines as a result of the COVID-19 pandemic. Given this, projects will be completed, and final evaluation results made available, between April 2021 and July 2022.

Despite the delays caused by the COVID-19 pandemic, many of the projects have already delivered skills development training to participants. In the project summaries below we highlight information on the number of participants served to date by several of the projects.

FSC PILOT PROJECTS

FAST (FACILITATING ACCESS TO SKILLED TALENT)

FAST is an online skills assessment and development platform that helps newcomers overcome barriers to entering the labour market. FSC is investing in an expansion of the platform to include assessment and development options for new occupational streams as well as a rigorous evaluation of the platform's ability to support newcomers. The new occupational streams have been launched and the project has served over 1000 participants.

Lead: Immigration Employment Council of British Columbia

YOUTH INSTEM

FSC is funding Actua to design and deliver a new program to engage Indigenous youth in culturally-based programming to prepare them for further education and training in STEM subjects. The program aims to build confidence, increase exposure to Indigenous role models, worldviews, ways of knowing, and their relationship with Western science. One cohort of 44 participants has completed the initial Youth InSTEM training program, but further delivery is on hold due to COVID-19.

Lead: Actua

Partners: Frog Lake Education Authority, Beaufort Delta Divisional Education Council

PROJECT INTEGRATE

Project Integrate seeks to understand how competency assessment tools can be most effectively used within employment service providers to support youth job search and career navigation. To do so, project partners conducted an initial phase of user testing and engagement to identify system-level enablers and barriers to implementing the tools. Project Integrate is now deploying competency assessments in a variety of youth-serving programs at employment services providers across Canada to explore how they add value to jobseeker experiences in various contexts.

Lead: OTEC

Partners: MaRS Discovery District, First Work

DIGITAL COMPETENCIES

FSC is funding the expansion of an existing digital skills training program that provides technical instruction for 625+ workers seeking to enter the IT sector in non-technical roles, such as marketing, project management, and sales. The project is currently in delivery phase and has so far engaged over 150 participants.

Lead: TechNation (formerly Information Technology Association of Canada)

Partners: Diversity Institute

FUSION (FUTURE SKILLS INNOVATION NETWORK FOR UNIVERSITIES)

FUSION is a network model that aims to help universities collaborate on the design and delivery of more effective essential skills programming for PSE students. FSC is funding Concordia University to research, design, and deliver the model to six universities. The first pilot has been launched to over 700 students.

Lead: Concordia University

Partners: Simon Fraser University, Carleton University, University of Calgary, Memorial University, University of Saskatchewan

BE EPIC

FSC is investing in the adaptation and delivery of an evidence-based two-day skill development program for Personal Support Workers working with patients with dementia. Be EPIC has enrolled over 30 participants to date, but delivery has been paused due to COVID-19.

Lead: Western University

Partners: Patio Interactive, Sam Katz Community Health and Aging Research Unit, Community Training and Development Centre in Northumberland County, McCormick Dementia Services

INDIGENOUS ICT DEVELOPMENT CENTRE

Indigenous communities in Manitoba are often isolated and lack technological skills and internet connectivity. This project aims to design and deliver a new Indigenous ICT Development Centre to train Indigenous youth for IT jobs in their communities. The program includes a training stipend, work placement, job coaching and mentorship. To date, 21 participants have enrolled in the program.

Leads: Firespirit, ID Fusion

BETTER OUTCOMES IN LAYOFFS AND DOWNSIZING (BOLD)

BOLD is a program in the US that takes a proactive approach to mitigating the effects of layoffs and downsizing by reducing the time they are unemployed. The program provides workers with rapid re-training and relocation supports so employers can retain their current workforce in new roles. FSC is funding CSTEC to adapt and implement this program in Canada for workers in the manufacturing sector. The launch of BOLD was delayed due to COVID-19 but the program has enrolled 97 participants.

Lead: Canadian Skills Training and Employment Coalition (CSTEC)

FSC PILOT PROJECTS

SUPPORTING MID-CAREER WORKERS WITH DISABILITIES

This project involves research to identify the employment needs of mid-career workers with disabilities, and the design and delivery of new tools and assessments to hundreds of workers to address those needs. FSC is funding research on the needs of mid-career workers with disabilities, and the design and delivery to tools to address those needs.

Lead: University of Ontario Institute for Technology

Partners: York University, Durham College, National Education Association of Disabled Students, Council of Canadians with Disabilities, Manitoba League of People with Disabilities, Quebec Association for Equity and Inclusion in Post-Secondary Education

LEARNER SHOCK

This project aims to deepen our understanding of, and tools to overcome, learning shock. Learning shock is the frustration, confusion, and anxiety that midcareer workers experience when they undergo (re)training and are exposed to unfamiliar learning and teaching methods, unexpected cues, and ambiguous expectations. FSC is funding the development and research on training modules for workers and trainers, and informational products for employers, to raise awareness of Learner Shock and how to mitigate it. The project is currently in the design phase.

Lead: University of Manitoba

EDGE UP

Edge UP is a new program to help displaced professionals in the oil and gas sector re-training for the IT sector. Participants undertake work readiness training, formal technical training, and receive job search assistance. FSC is funding the design and delivery of this new program. Edge UP has served almost 100 participants to date.

Lead: Calgary Economic Development

Partners: Riipen, ICTC Canada, University of Calgary, Southern Alberta Institute of Technology, Bow Valley College

CAREER MOVES

FSC is funding Norquest College to design and deliver a new professional development program to help 120 displaced mid-career workers, including oil and gas workers, women, and newcomers transition to new career paths. The model involves a professional exploration phase, formal re-training, and a reflection phase. Career Moves is currently in the delivery phase and has served over 90 participants.

Lead: Norquest College

CONTINUOUS LEARNING FOR INDIVIDUALS' MID-CAREER AND BEYOND (CLIMB)

CLIMB catalyzes the interest of mid-career workers in career change, and prompts them to take action through education and training. The program will be delivered through an online portal as well as formal in-person learning to increase participants' awareness of their existing skills, potential education and training opportunities, and readiness for training. FSC is funding Northern Lights College to design and deliver this new program. While the online platform has launched, in-person delivery has been launched and accessed by over 50 individuals.

Lead: Northern Lights College

WORK-BASED LEARNING (WBL) PHASE II

This project will test four new innovations to help displaced workers transition to in-demand jobs within the advanced manufacturing sector, including: a virtual classroom; improved on-the-job learning; bridging employability competency gaps; and sector-approved certification for mid-career workers. Delivery of the program is ongoing although timelines have been extended due to COVID-19. Sixteen participants are currenty enrolled.

Lead: Work-Based Learning Consortium

Partners: Canadian Association of Mold Makers

SUPPORTING MID-CAREER WORKERS IN RETAIL AND MEAT PROCESSING

FSC is funding the design and delivery of a new program to provide accessible learning formats to build the digital and soft skills of workers in the retail and meat processing sectors, and build pathways for transitions from occupations with a high-risk of automation to growth occupations within these sectors. The project includes two online streams. The first is a suite of modules on skills needed in the sector, and the second focuses on pre-apprenticeship modules for in-demand skilled trades. These two modules have served 180 participants total to date. A third stream on butchery apprenticeships is on hold due to COVID-19.

Lead: United Food and Commercial Workers Union (UFCW)

BUILDING THE SKILLS OF THE TRUCKING INDUSTRY

This training program aims to improve trucking sector workers' productivity, prepare them for technological changes within the industry, and improve job satisfaction and job retention. This includes essential skills training and technical training using VR to build sector capacity around these training tools. FSC is funding the Trucking Human Resources Council to design and deliver this new program. Recruitment for the project has begun but delivery has been delayed due to COVID-19. Forty participants have enrolled to date.

Lead: Trucking Human Resources Council

Partners: St. Francis Xavier University Centre for Employment Innovation

DEVELOPING EVALUATION PLANS

We have collaborated with our project partners to design fit-for-purpose evaluations that align with their needs, goals and context.

For each project, we held **discovery workshops** that deepened our understanding of the proposed project and target outcomes. Following these workshops, we designed evaluation plans that aligned with the projects' stage of development and objectives. Through the discovery workshops we:

- Developed a deeper understanding of each grant recipient's guiding values, capacity and experience with evaluation to ensure our plan was aligned with their needs and context
- Obtained information about the design and implementation plan for the project and worked with grant recipients to define what success would mean
- Co-designed learning questions to guide the development of an evaluation plan

After the discovery workshops, we developed evaluation plans that aligned with the projects' objectives and stages of development. Recognizing the need to shift away from a "one-size-fits-all" approach to evaluation, the evaluation plan for each project varied according to the projects' activities, goals and stage of development.

Most projects focused on delivering an intervention to participants that would improve their skills and labour market success. The evaluation plans for these projects focused on measuring these target outcomes and assessing the implementation factors that could support or hinder the success of the projects. Where appropriate, evaluation plans included measurement of a set of *common outcomes* that we developed to ensure the comparability of evaluation results across projects (see Box 3 for more information).

We found that most projects were not ready for a rigorous impact evaluation given their scale and level of development. Some of the projects focused on developing new tools rather than delivering a skills development intervention to participants. The evaluation plans for these projects incorporated a developmental lens focused on supporting tool development.

While many of the evaluation plans included measurement of long-term outcomes, we also incorporated early indicators of a project's success, and strategies for sharing these findings throughout the course of a project to help them learn, adapt and adjust.

Some project partners planned to conduct their own evidence generation activities. We have worked closely with these partners to reduce duplication and ensure alignment between our approaches where possible. Many of these partners are academic institutions who have already developed specific approaches to research and evaluation and have opted to pursue their own research agendas.

BOX 3 COMMON OUTCOMES AND DATA LINKAGE

We are measuring a set of shared outcomes and participant socio-demographic characteristics across projects. Measuring common outcomes and characteristics is part of our commitment to understanding if, and how, projects are reaching diverse groups of individuals, and the degree to which they experience these projects differently. We aim to understand how FSC's portfolio serves groups underrepresented in the labour market, including racialized people, Indigenous people, newcomers, people with disabilities and LGBTQ2S+ people.

The shared outcomes framework will allow us to measure and compare the performance of the projects based on project type, sector or target population, and estimate the collective impact of all funded projects. The participant outcomes framework includes:

- Intermediate outcomes that reflect participant experiences or capture milestones such as program completion
- Long-term outcomes such as employment and educational outcomes that measure the long-term effectiveness of each project
- Customized outcomes, which are outcomes for which indicators and measurement will differ by project

The full FSC Outcomes Framework can be found in Appendix A. The framework was developed in consultation with our partners and was informed by a review of employment-related outcomes frameworks and measurement approaches both within Canada and internationally. To enable the efficient measurement of long-term earnings and employment outcomes, we are also planning to link data from our evaluations with Statistics Canada administrative records.

IMPACT OF COVID-19

The COVID-19 pandemic has had a significant impact on the pilot projects, many of which involve delivering and testing skills development interventions in person. Despite these adverse conditions, all 16 projects are moving ahead. Thirteen of 16 projects have requested more time to deliver their projects due to delays caused by the pandemic. Many project partners have had to postpone in-person training components, or required extra time to pivot to online delivery. The pandemic has disproportionately affected projects that were providing more intensive in-person services, including those being delivered in rural and remote areas.

As a result, many of our evidence generation activities have also been delayed. We are working closely with partners to ensure we understand their situation and adapt our evidence generation approaches as needed. For example, for some projects we are shifting our focus to providing advice and information that can support them in transitioning to an online service delivery format. (See Box 4 for more details on how some of our project partners have shifted their approach in response to COVID-19).

We also recognize that the economic shock caused by the pandemic means that many of the individuals participating in these projects will be entering one of the most challenging labour markets in decades. This will require us to be flexible and thoughtful about how we interpret evaluation results from the first set of projects regarding participant outcomes. We are working closely with our project partners to understand the anticipated effects of COVID-19 on participant outcomes so that we can incorporate these considerations into evaluation results.

BOX 4 RESPONDING TO THE CHALLENGE OF COVID-19

Edge UP is a skills-development program led by Calgary Economic Development to help displaced professionals from the oil and gas sector retrain for jobs in the IT industry. Following the outbreak of COVID-19, all training for the program moved to an online format. Despite causing some delays in program timelines, the transition has been otherwise successful with consistently high enrollment and completion rates. According to the data collected through Blueprint's evaluation, four individuals have ended their participation in the program and only one has cited the transition to online learning as a factor in this decision.

An important success factor has been the commitment of the project leads to flexibility and continuous learning. By being responsive and nimble in trying out new strategies and responding to challenges as they arise, project partners have been able to adapt to changing circumstances.

Blueprint has also adapted our evaluation approach. Through our ongoing consultations with the project team, we have identified lessons and insights about what is working in the transition to online delivery and provided advice and guidance. We have also adapted our evaluation timelines to account for the changing economic conditions.

Digital Competencies is a digital skills training program that provides instruction on technical and soft skills for workers seeking to enter the workforce in 'digital roles' including technical roles and non-technical roles that require digital literacy such as project management and sales. Before the pandemic, the project was originally slated to be delivered in three formats: in-class, online and blended. Following the onset of the pandemic, the project transitioned to online-only training. Almost all participants have continued participating in the program, and of those who have stopped none have cited the transition to online learning as a factor in their decision.

We have identified some important success factors that have helped facilitate a smooth transition including a high degree of agility and effective communication among the project team. The willingness of project staff to offer students extra support in transitioning to an online-only format has also contributed to success, as has the existing infrastructure and expertise among the project team in delivering online learning.

In our role as the evaluator, we have had regular discussions with program stakeholders to ensure that we are effectively monitoring the transition and providing insights to the project team to help inform their adaptations.

WHAT WE LEARNED

Our experience with the first 16 projects has highlighted the importance of shifting from a traditional evidence-generation approach to a more flexible, multidimensional and learning-focused approach. It has also highlighted that building this new approach will not happen overnight. We need to continually refine our evidence generation strategy to ensure we have a high-quality toolkit that helps projects advance in their evidence-building journey. We also need to work closely with project partners and other stakeholders to build awareness, understanding and interest in using evidence in new ways to foster innovation and scaling.

Below we share some of the key lessons that are informing our approach going forward.

We need to work closely with our partners and stakeholders to build awareness, understanding and interest in using evidence in new ways to foster innovation and scaling.

Variation in each project's stage of development

As we worked with projects to identify their objectives and co-design evaluation plans, we learned that there was more variation in projects' readiness for implementation and evaluation than we had initially anticipated. Some projects had well-codified models and clearly defined outcomes; others were in the early stages of design and implementation planning.

For example, the *Indigenous ICT* project proposed to design and deliver a novel skills intervention that involved new delivery channels and partnerships. Like many other projects in the early stages of development, the partners experienced some initial challenges in delivery and implementation, requiring additional time for adjustments and iterations. As a result, we recognized we needed to adjust our evaluation approach (see Box 5 for more information).

In contrast, the *Facilitating Access to Skilled Talent* project is expanding and testing a fully developed skills-development model that had already undergone initial testing. This made it possible for us to implement a rigorous outcomes evaluation and test an approach for a quasi-experimental design (see Box 6 for more information).

The range in projects' stages of development meant that we needed to be even more creative and thoughtful about our evidence generation approaches then we originally anticipated. Moving forward, we plan to use a more systematic approach to identifying a project's stage of development, and apply an expanded toolkit of evidence generation approaches that will help us advance all projects along their evidence-building journey. We describe this approach in more detail in Section 3.

BOX 5 INDIGENOUS ICT

The Indigenous ICT (I-ICT) is a partnership between two Indigenous-led, employment and technology solutions organizations, FireSpirit and ID Fusion, to design and deliver an ICT training program to Indigenous participants in Winnipeg and The Pas, Manitoba.

After a three-month design phase, delivery of the program began in July 2019. Project partners experienced some initial challenges with delivery. Internet connectivity issues, challenges in adapting the curriculum to a remote learning format, and challenges with the design and delivery of the training content led to several participants ending their participation in the program. These challenges more heavily impacted The Pas site, where all participants discontinued their participation. In response, the program team put the training on hold to address some of the outstanding issues with the training design and delivery. The I-ICT project team restarted the training in November 2019.

To support FireSpirit and ID Fusion with these changes, Blueprint shifted our evidence approach away from an evaluation of participant outcomes to a continuous learning approach. This approach focused on collecting information about participant experiences in the program, and translating insights into program improvements and adaptations to meet the needs of both participants and project partners. We also incorporated technical advice and guidance to support the design and delivery of the program, such as research into provincial regulations on educational software for youth, and the design of highly participatory sessions to enable students to guide future iterations of program delivery.

The project partners have since made several adjustments to the project including extending recruitment timelines, identifying minimum requirements to enter training, increasing supports for training and employment, better aligning training with in-demand jobs and integrating Indigenous learning practices with collaborative, applied training approaches.

Our experience working with this project highlights some key insights:

- **Early stage projects need time to develop** — Projects like Indigenous-ICT that are proposing models that are either a first for the implementation team or are novel as a concept, require adequate time for design, prototyping and implementation planning.
- **Role for technical assistance** — Technical advice and guidance regarding project design and implementation planning can help ensure that projects have the capacity and tools for sustainable delivery.
- **Flexibility is critical** — Our experience highlighted the importance of being flexible in our evidence-generation approach. By continually asking ourselves "What evidence do our partners need to inform their work and reach their goals?" we were able to adapt our approach and ensure we were generating meaningful and relevant evidence that helped the project progress.

BOX 6 FACILITATING ACCESS TO SKILLED TALENT

Facilitating Access to Skilled Talent (FAST) is an online platform that helps newcomers assess their skills and find new jobs in Canada. FSC has partnered with FAST to expand the platform to include assessment and development options for new occupations and to rigorously evaluate the project's effectiveness.

Blueprint collaborated with FAST to design an evaluation that would assess the project's effectiveness in helping newcomers find success in the labour market. This included a process evaluation to understand how the program was implemented and participants' experiences with the program, and to support continuous program improvement. It also included an outcomes evaluation to capture participants' employment gains.

Given that the project had a well-developed program design, an established implementation process and an existing evidence base, we also piloted an encouragement design. In this design, incentives to join the program were randomly assigned to potential participants. While the current scale of the program and delivery challenges related to COVID-19 have made a full impact evaluation infeasible during the current engagement, the results of the pilot suggest that an encouragement design is a valid option for an impact evaluation down the road.

The evaluation has already shown promising rates of program completion and employment, and participants have generally reported positive experiences with the program.

IMPORTANCE OF PURSUING MULTIDIMENSIONAL EVIDENCE GENERATION

Skills development stakeholders are most familiar with the traditional evidence generation model of "one-and-done" evaluations that assess a model's effectiveness. This has been the standard approach used by funders in the social sector. Our project partners demonstrated appetite and interest, but less familiarity, with other types of evidence generation that can help a model move toward broader scaling and impact. These include implementation quality, demand and value for money. At the same time, policy-makers and practitioners are likely to want and need evidence about these other dimensions to inform their decision-making.

As an initial step in developing a multidimensional approach to evidence generation, we designed in-depth process evaluations for several projects to understand how effectively the models were being implemented and their potential scalability (see Box 7 for an example). However, we also recognized that we need to build our own expertise and equip ourselves with more tools and approaches to answer a broader range of evidence questions. We need to help projects assess where they are in their long-term evidence journey, and create plans that help them move towards broader scale and impact. As a result, we are developing and testing a new framework and tools to guide the development of evidence plans that help projects build and use evidence across multiple dimensions. This framework is described in detail in Section 3.

EXAMPLES OF MULTI-DIMENSIONAL EVIDENCE QUESTIONS

Effectiveness	→ Does the model produce results?
Implementation	→ Can the model be easily replicated?
Demand	→ Does the target population want and need the model?
Value for money	→ Is the model cost-effective?

BOX 7 | EDGE UP

Edge UP is a program designed to help displaced professionals in the oil and gas sector retrain for jobs in the IT industry. The program includes work readiness training, technical training and job-search assistance.

We are conducting an in-depth process evaluation to capture information about how well the program is implemented across different training sites, how participants are experiencing the program and how effectively the project partners are collaborating.

The process evaluation has already captured some important lessons that have contributed to the ongoing improvement of the program. These include the importance of monitoring implementation fidelity across training sites, establishing strong relationships among partners, and ensuring the program is as streamlined as possible to facilitate participant success.

Need for capacity building and technical assistance

We have learned that many projects could benefit from targeted capacity building and technical assistance. The novelty of the interventions that many of the projects are testing has meant that there are often unanticipated areas of expertise or capacity.

With some of our project partners, we have begun experimenting with approaches for offering technical assistance in addition to acting as an evaluation partner. For example, we have been working with Project Integrate to provide advice and guidance on the design and delivery of the project (see Box 8). Going forward we are working with FSC to develop a systematic approach for offering technical assistance.

BOX 8 PROJECT INTEGRATE

Project Integrate seeks to understand how competency assessment tools can be most effectively used by employment service providers to support youth job search and career navigation.

In the first phase of Project Integrate, project partners OTEC, First Work and MaRS undertook user testing with youth jobseekers and engagement with youth-serving employment-service providers to identify system-level supports and barriers to implementing the tools. The second phase involves deploying competency assessments in a variety of youth-serving programs at employment service providers across Canada to explore how they add value to jobseeker experiences.

To help effectively translate the research conducted in the first phase to the design and deployment of a full intervention in Phase 2, Blueprint held a learning session focused on summarizing key insights from Phase 1 and supporting project partners to prioritize and plan activities for Phase 2. We have also provided advice and technical assistance on the design of data collection tools.

3. Where we are going

At FSC's launch we knew we needed to develop an evidence generation approach that would align with FSC's innovation mandate, and generate evidence that is relevant for policy and practice.

We have made significant progress towards developing and implementing an approach that aligns with these goals. Going forward, we have identified areas in which we need to create new tools and increase our expertise in order to fully deliver on our approach with both existing and future projects.

Our experience has also highlighted the connections between Blueprint's work as the FSC evidence generation lead, and FSC's work to foster and fund innovation in the skills development ecosystem. See Box 9 for more information about the **FSC Innovation Lab**, a new FSC initiative which provides a framework for an integrated approach to innovation and evidence generation.

This section describes the three key areas where we are refining our approach to evidence generation:

A. Align evidence generation with the innovation cycle

B. Provide technical assistance and capacity-building

C. Refine our framework and build a toolkit for multidimensional evidence generation

BOX 9 | THE FSC INNOVATION LAB

FSC aims to drive innovation to create a more agile and responsive skills ecosystem. Achieving this requires developing and nurturing a diverse portfolio of projects and working closely with partners to build a culture of rapid learning, risk-taking and innovating.

To address this need, FSC has established an **Innovation Lab**, which draws on promising approaches in Canada and internationally to engage, convene and collaborate with innovators across the country who are:

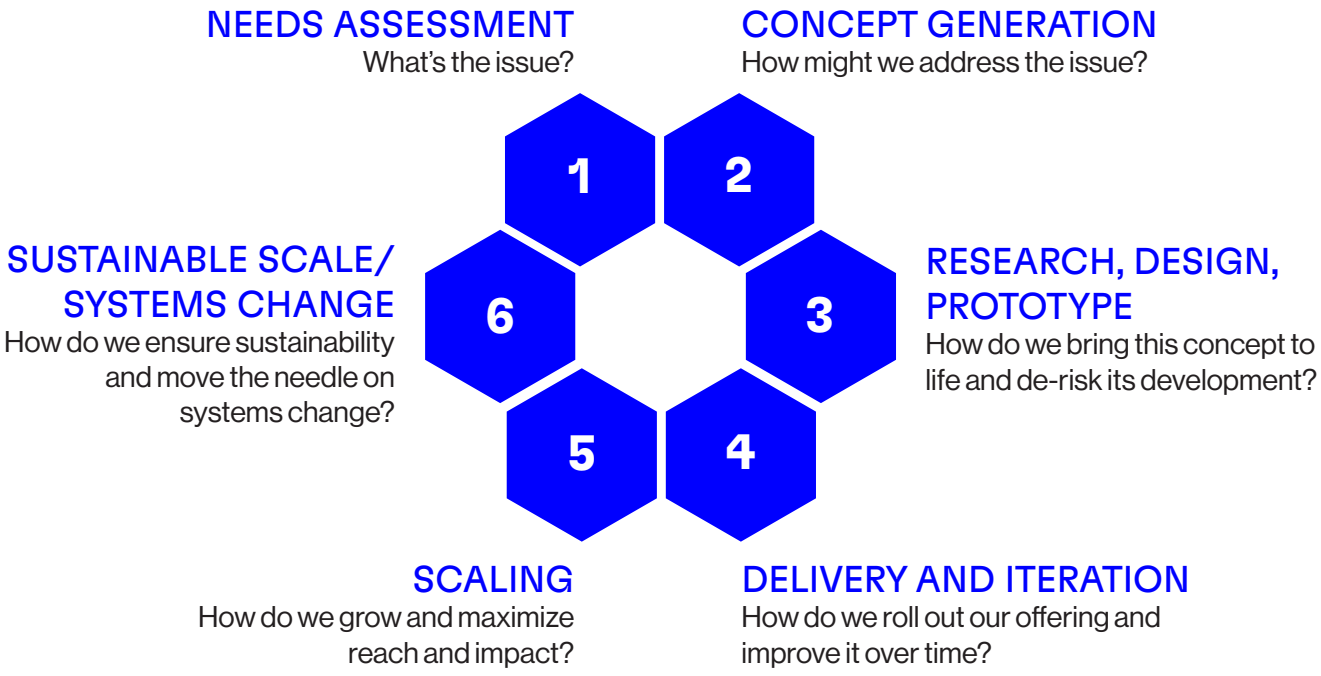
- Passionate about creating a future in which everyone has life-long access to high-quality career advice and learning opportunities
- Interested in prototyping, testing and measuring new and innovative approaches to skills development and training
- Seeking opportunities to learn from and collaborate with each other

A. Align evidence generation with the innovation cycle

We found that the first 16 pilots funded by FSC varied widely in their stage of development. This highlighted the need for a diverse toolkit of evidence-generation methods that can be applied at different stages of a project's development.

Going forward, we need to diagnose a project's stage of development and apply evidence-generation activities that are appropriate and relevant for that stage. Projects progress along an *innovation cycle* moving from needs assessment, to conceptualization and design, delivery and eventually to scaling and broader systems change (see Figure 1). Knowing where a project is in the innovation cycle, we can ask the right questions and collect the right evidence to help move the project forward.

FIGURE 1 THE INNOVATION CYCLE



To support innovation, we need evidence approaches that go beyond traditional outcomes evaluations.

Aligning evidence generation with the innovation cycle will also help us be clear about whether traditional evaluation methods are appropriate for a project. Projects that have moved into delivery and scaling can be rigorously evaluated to assess their effectiveness in achieving participant outcomes. But projects at early stages of the cycle are likely to have different learning objectives. We are working to develop an expanded toolkit of evidence generation approaches that can be used to:

- Understand and analyze complex issues in skills development using tools like *evidence reviews, systems mapping* and *user journey mapping*
- Identify innovative concepts and ideas for addressing these issues and challenges using tools like *jurisdictional scans*
- Prototype and refine potential models using tools like *user testing* and *rapid-cycle evaluation*

B. Provide technical assistance and capacity-building

Our experience has highlighted that many projects would benefit from more advice, guidance and hands-on support. To develop innovations and generate high quality evidence, project partners need support executing on their projects. Technical assistance will help projects advance along the innovation cycle, moving promising models towards delivery and scaling.

Providing technical assistance will help us drive innovation, generate evidence and support scaling.

Project partners may need different types and different levels of technical assistance. Moving forward, Blueprint and FSC are working together to build an approach to offering targeted technical assistance that will help projects develop their innovations. While Blueprint will offer technical assistance directly related to preparation for evidence generation activities, FSC will offer a range of specialized knowledge and expertise to support project implementation.

C. Develop a framework for multidimensional evidence generation

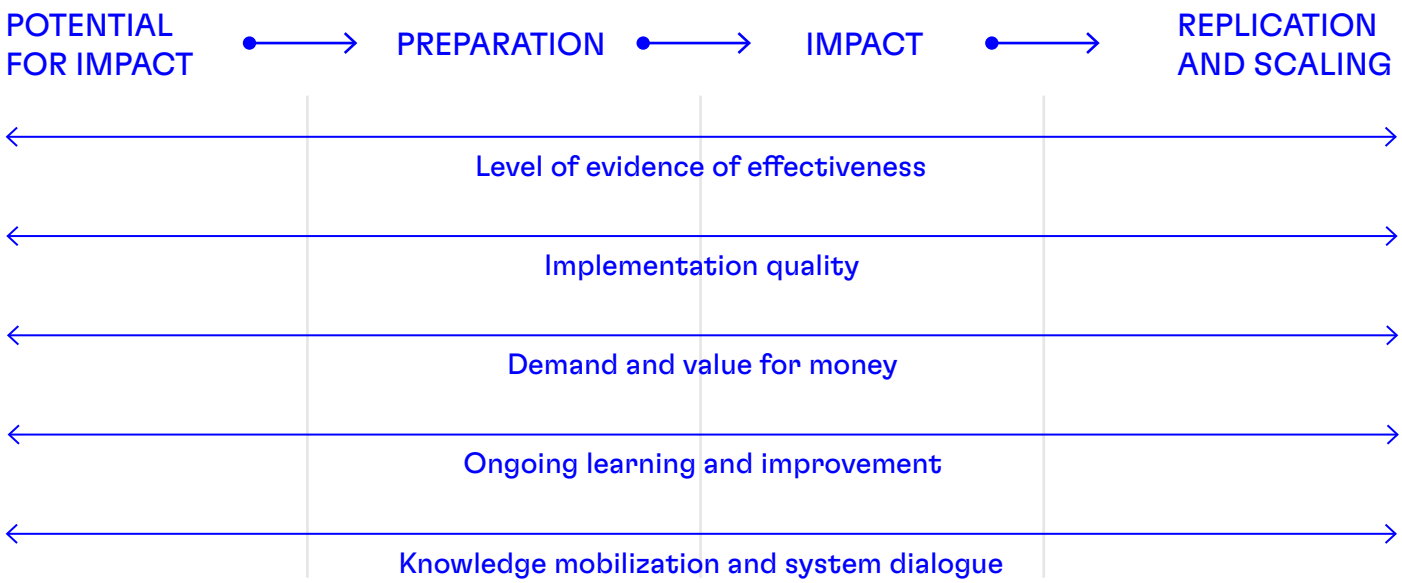
Early on we recognized that it was critical to move beyond traditional evidence approaches that do not account for the range of factors that determine whether a model is effective and whether it can be scaled and replicated.

> **We need a new framework that specifies the types of evidence needed to move a project from initial testing, to rigorous evaluation, to broader scaling and impact.**

As we worked with the first 16 pilots, we also recognized that we need a formal framework that would help us understand how a project moves from initial testing, to rigorous evaluation, to broader scaling and impact. Figure 3 presents the first version of this framework. We have developed this framework as a high-level roadmap for generating evidence that can ultimately lead to changes in policy and practice. The framework includes multiple dimensions of evidence generation:

- **Level of effectiveness** — As projects develop, they build increasingly rigorous evidence about the model's effectiveness, from initial measurement of outcomes to rigorous impact evaluation using quasi-experimental or experimental designs.
- **Implementation quality** — To prepare for rigorous evaluation and scaling, models also need to achieve a high level of implementation quality. Applying concepts from implementation science helps projects clarify implementation strategies that ensure models can be effectively delivered and scaled. (See Box 10 for more information about *implementation science* and how we are applying it as part of our evidence framework).
- **Demand and value for money** — For models to be scalable and sustainable, there needs to be *demand* among stakeholders and *value for money* relative to other interventions.
- **Ongoing learning and improvement** — Evaluation studies are not enough to ensure that a model's effectiveness will be sustained over time. A plan for continuous data collection, monitoring and continuous improvement is an important part of a project's long-term evidence journey.
- **Knowledge mobilization and systems dialogue** — Insights about effective models should be shared with policy-makers and practitioners to build awareness and interest and create opportunities for replication and scaling.

FIGURE 3 THE EVIDENCE MATRIX



We are planning to test this initial framework with new projects funded by the FSC that have the potential to move toward an impact evaluation. The framework serves as a guide to inform the development of *evidence roadmaps* that define a set of activities and milestones for the project that:

- Clarify when, how and what types of activities will be carried out to prepare for rigorous impact evaluation
- Outline a strategy for ensuring implementation quality of the model by adopting approaches and tools from implementation science
- Include plans for assessing the demand for the model among stakeholders and for evaluating and optimizing the model's value for money
- Include an approach for consistent, ongoing monitoring and learning about the model's performance to inform continuous improvement and adaptations over the long-term
- Outline a strategy for integrated knowledge mobilization that involves sharing evidence with a broader community of practice and engaging key decision-makers

BOX 10 APPLYING IMPLEMENTATION SCIENCE

Implementation science is the study of methods to promote the adoption and integration of evidence-based practices, interventions and policies. It is most commonly applied to health care interventions.

We believe that implementation science can help address a critical need in the skills development ecosystem around implementation quality. Applying concepts, tools and frameworks from implementation science can help organizations more effectively plan and deliver new and complex models.

With support from **The Centre for Implementation,** we have begun developing approaches and tools from implementation science that can be applied to FSC funded projects. These approaches will help us answer a range of questions relevant to implementation quality, such as:

- Whose behaviour needs to change in order to implement the intervention?
- What are the barriers/facilitators to change?
- What strategies are needed to ensure that stakeholders can consistently implement the model with a high degree of quality?
- What is the best way to define and monitor implementation quality and make adaptations to a model as it is scaled and replicated in different contexts?

4. Conclusion

This report has highlighted where we started, what we have achieved, and where we want to go next with our evidence generation approach. Our experience has highlighted the importance of learning, reflecting and adapting — not just when it comes to testing skills development interventions, but for our own evidence generation approaches and tools.

Moving forward, we are excited about the opportunity to continue building and testing new approaches to evidence generation that can help us foster innovation and strengthen skills development programs, policies and practices. We look forward to sharing additional insights about our learning journey in the coming months.

Appendix A

FSC COMMON OUTCOMES FRAMEWORK

	OUTCOME	INDICATORS
SOCIO-DEMOGRAPHICS	Gender	Sex at birth Self-identified gender
	Age	Age
	Location	Province Region and municipality
	Marital status	Marital status
	Children	Children Dependents
	Education	Highest credential obtained Location of highest credential attainment
	Indigenous identity	Self-identified Indigenous identity
	Francophone	First language is French, or French is first official language
	Newcomer status	Newcomer status Year of arrival Permanent resident status
	Racialized status	Self-identification of membership in a racialized group
	Disability	Self-identified disability
EMPLOYMENT STATUS AND HISTORY	Employment	Employment status Nature of employment (permanent, temporary, full/part-time)
	Earnings	Hours worked / week Wages Annual earnings
	Industry and occupation of employment	NAICS code of job NOC code of job
	Work history	Time since last employed Proportion of last 5 years employed Earnings trajectory over last 5 years NAICS code of last job NOC code of last job
	Income source	Income sources
INTERMEDIATE OUTCOMES	Program completion	Successful completion of planned activities
	Participant satisfaction	Satisfaction with programming Perceived utility of programming Likelihood to recommend
CUSTOMIZED INTERMEDIATE OUTCOMES	Skills gains	Measured gains in specific skills
	Program-specific credential attainment	Attainment of program-specific credentials

	OUTCOME	INDICATORS
LONG-TERM OUTCOMES	**Employment and retention**	Employment status Nature of employment (permanent, temporary, full/part-time) Retention
	Earnings	Hours worked / week Wages Annual earnings
	Benefits	Presence of benefits including: · Paid leave · Health and dental coverage · Pension plan
	Industry and occupation of employment	NAICS code of job NOC code of job
	Job satisfaction	Satisfaction with job Perceived opportunity for career advancement Perceived job security
	Enrolment in further education	Enrolment in formal education Field of study
	Credential attainment	Attainment of high school or PSE credentials Field of study of credentials

Blueprint