



Targeted call for FSC Project Partners

Instructions to complete the application form

Please refer to the Future Skills Centre's (FSC) **Targeted Call for FSC Project Partners Guidelines** document when preparing your application.

This application form is structured to help you address the selection criteria for this call and give reviewers easy access to your project information. This form is divided into the following sections:

- Part 1 - General information
- Part 2 - Project summary
- Part 3 - Project details
- Part 4 - Project work plan and budget
- Part 5 - Declaration

If you would like to request accommodations or other types of support, please contact Maysa Mourad by email at targetedcall@fsc-ccf.ca or by phone at 437-331-0613.

If you have any questions while compiling your application, you may contact our team at targetedcall@fsc-ccf.ca. We would be happy to answer any questions.

PART 1 - GENERAL INFORMATION

1. Lead organization

Name of lead organization

Work-Based Learning Consortium

Name of project lead

Rod Jones

Project lead's preferred method of contact (email address and/or phone number)

rod.jones@workbasedlearning.ca

2. Proposed project

Project title

Rapid 'On-the-Job' Employee Upskilling / Re-Skilling for In-demand Skilled Jobs via Work-Based Learning: Higher Productivity, Retention, & Career Pathways

Project start and end dates

January 10, 2022 to September 29, 2023

Projects must end no later than September 30, 2023.

Amount requested from FSC (total)

\$3,232,000.00

Project partners and their location

CME Canadian Manufacturers & Exporters, BC, AB, ON, NS
CTMA Canadian Tooling & Machining Association, ON
APMA Automotive Parts Manufacturers Association, ON (invited)
Canada West Foundation, AB
Workforce Strategies International Inc., BC, AB, ON
IECBC Immigrant Employment Council of BC, BC
Keter Canada, ON (Keter Group, Israel)
Manpower Group, BC, AB, ON, NS
PTP – Adult Learning & Employment Programs, ON
Sinneave Family Foundation, AB

PART 2 - PROJECT SUMMARY

1. Proposed project “one-liner”

How would you describe your new project in one sentence?

Building systematic processes for identifying employer demand for upskilling/re-skilling employees + building/testing new and enhanced ‘Rapid On-the-Job Upskilling’ Work-Based Learning programs for in-demand skilled jobs in diverse sectors and regions.

(30 words maximum)

2. Proposed project summary

How would you describe your new project and how it builds on the testing and learning of your current project to date?

We suggest that this summary covers the main information about how your new project addresses all selection criteria of this targeted call.

WBLC’s Work-Based Learning programs are a proven way for employers to upskill/re-skill employees.

This project builds on this success by establishing a process to identify employers who want their employees to upskill/re-skill and then delivering WBLC learning programs that upskill employees’ job-specific technical and non-technical (transversal) competencies.

A. Relevance: This project will:

- Reduce inequities within the labour market
- Enable more open access to training regardless of income, geography, and background
- Enable employees to adapt to technological change
- Allow ready access by employees to workplace-based skills training
- Enhance the ability of immigrants to succeed in Canadian workplaces.

B. Innovation and Evidence – We will develop and test:

- ‘Rapid Upskilling’ – accelerated delivery of proven WBL programs – 40-50% less time.
- A structured, tailored process for ‘Competency Gap Coaching’ (CGC) – proven in our previous FSC project – including an innovative AI-driven ‘Workplace Technical Conversation Language’ program for people new to the work environment, particularly immigrants.
- A responsive, systematic process for identifying employer demand for upskilling/re-skilling; nothing currently exists.

C. Learning – our previous FSC project demonstrated the effectiveness of WBL programs for upskilling/re-skilling mid-career employees.

D. Equity, Diversity, and Inclusion – all WBL processes are inherently supportive of EDI, since they are based on objective, evidence-driven, competencies-based methods.

E. Capacity – WBLC has consistently managed many widely varied projects, by combining effective project management with the ability to build project teams and partners with the type and scale of expertise required.

F. Coherence – the phased, logically-sequenced Workplan activities – with durations based on prior experience – demonstrate the feasibility of meeting project objectives.

(250 words maximum)

3. Additional scope

How does your new project go beyond the scope of your current FSC-funded project?

The additional scope may include expanding or extending a project model, its principles and/or components. For example, it may include expanding the project to new regions or jurisdictions, including new or larger target populations, and testing different delivery formats to understand what works to address demands. This would assume the potential for bringing additional partners to deliver the project at a broader scale. The additional scope must be grounded in new concrete learning questions to contribute to your work and of others in the skills ecosystem.

This new project will achieve:

1. Four new WBL programs for upskilling/re-skilling employees for in-demand skilled jobs in at least three (3) new sectors such as agri-food, alternative energy, and shipbuilding and in three (3) new regions in Canada (BC, Alberta, and Atlantic Canada)
2. Accelerated delivery ('Rapid Upskilling') of three existing, proven WBL programs via blended learning plus more effective Company Trainers.
3. A systematic process for identifying current employer demand for upskilling/re-skilling of currently employed workers.
4. An innovative method – Structured Competency Gap Coaching – for bridging essential job-specific non-technical competency gaps (transversal skills) for current skilled employees, including an Artificial intelligence-driven learning system for 'Workplace Technical Conversation Language' for people new to their work environment, particularly immigrants.
5. Enhanced software support for the web-based WBLC Competency Assessment process

6. Enhanced user interface for the web-based system for tracking and reporting trainees' learning progress.

(150 words maximum)

4. Importance of the additional scope

Why is the additional scope of your project important to your organization, sector and target populations? Why is it timely?

Most companies employing skilled workers know that their workforce tomorrow will largely – about 94%¹ - be their workforce today.

Many of these companies will introduce new technologies and new business practices to keep competitive. Most recognize that, not only is it advantageous to upskill and re-skill their current valued employees to gain the full benefit of these new technologies and practices, but it is entirely necessary given the difficulties they experience in recruiting and retaining skilled workers – 61% of Canadian private sector employers report such difficulties.²

Upskilling/re-skilling current employees is essential, but employers currently have few practical solutions available. Our project will provide timely, pan-Canadian, proven, innovative solutions that will benefit both employers and employees.

(150 words maximum)

PART 3 - PROJECT DETAILS

In this section, please provide information about how your new project supports each of the selection criteria of this targeted call.

We provide prompting questions to help you address all criteria in the application guidelines. You may prepare this section following the prompting questions in sequence or using your own sections and narrative.

Although you have flexibility regarding the format for this section, please make sure that you address all criteria according to the prompting questions. Reviewers will assess your application by scoring each criterion individually.

This section should not exceed **seven** pages. We anticipate that most proposals will present this section in **five** pages.

¹ Based on voluntary turnover rates in 2019 in Canadian industrial sectors heavily reliant on skilled jobs: Compensation Planning Outlook 2020, Conference Board of Canada, Table 18, p.28

² Ibid, Table 16, p.26

WBLC's proven current methods and WBL programs are already highly innovative – no one else in Canada has done or is doing what we do in an integrated, systematic way. WBLC is the ONLY organization that is successfully applying 'competencies-based, outcomes-driven' principles – the foundation of employee learning interventions in Europe and the UK – in industry-led employee learning programs in Canada.

WBLC's Work-Based Learning programs are a proven way for employers to upskill/re-skill current employees – quickly and reliably – while they continue as full-time workers.

WBLC's previous projects – including the recently completed 'Skilled Jobs & Career Pathways for Mid-Career Workers through Work-Based Learning' funded by FSC – have confirmed that the seven (7) principles listed below are the necessary and sufficient foundation for highly effective (over 90% success rate) workforce development programs focused on in-demand entry- to mid-level skilled jobs.

Programs based on these principles create more equitable, diverse, and inclusive workplaces, enable unskilled/semi-skilled job seekers and skilled workers in transition to get hired or current employees to upskill/re-skill, acquire industry-valued skills, achieve industry-recognized certification, and pursue rewarding career pathways while enabling employers to meet their critical skills challenges – quickly, efficiently, and reliably.

Proven Principles for Effective Workforce Development for Entry- to Mid-Level Skilled Jobs

- 1) **Use competencies-based processes** (objective, evidence-driven) as the foundation for all selection, hiring, and training decisions and activities
- 2) **Be strongly industry-driven**, with active employer engagement in defining competency-based job profiles/standards (technical and non-technical competencies) for each skilled job position and in delivering 'on-the-job' technical learning activities to achieve the defined learning outcomes
- 3) **Match job seekers with skilled jobs on the basis of the job-specific non-technical competencies required for job success**, and provide 'competency gap coaching' for those job seekers who are close to being a good match
- 4) **Be 'demand-driven'** – build and/or deliver training programs to meet actual current skills shortages and require that employers hire Trainees as full-time, permanent employees at the start of their learning program ('earn while they learn') and/or nominate current employees as upskilling/re-skilling Trainees, to meet the company's skills shortages
- 5) **Use a 'blended learning' method for technical training** for job-specific technical knowledge and skills, which includes:
 - a) effective 'on-boarding' of Trainees and Company Trainers to the learning program
 - b) effective use of advanced learning technologies (modular e-Learning, VR/AI learning, micro-learning) by:

- i) using modular e-Learning to carry the principal load for training but support as required with instructor-led coaching on ‘hands-on’ skills e.g., use of hand and power tools;
 - ii) including e-Learning assignments to be done on the shop floor
 - iii) closely aligning e-Learning content with shop floor learning tasks
- c) providing Trainees with structured experiential (on-the-job) learning guided by Company Trainers (job experts) who are well supported and guided in providing effective technical training practices with diverse trainees and who have access to easy-to-use online tracking of Trainees’ progress
- 6) **Compensate employers** for their key role in providing the Trainee with ‘on-the-job’ learning – if the Trainee successfully achieves all required job-specific technical learning outcomes
- 7) **Use independent, valid, and reliable certification methods** (competencies-based) to confirm Trainees’ successful mastery of all required technical learning outcomes

These are the proven principles by which all WBLC’s Work-Based Learning programs operate, consistently achieving **success rates above 90% in upskilling/re-skilling employees.**

Through this project, we will leverage these principles and enhance their effective implementation to achieve the following:

- 1) Build a systematic, responsive process for identifying current employer demand for upskilling/re-skilling of currently employed workers; no such system exists today.
- 2) Build four new WBL programs for upskilling/re-skilling new and current employees for in-demand skilled jobs in at least three (3) new sectors such as agri-food, alternative energy, and shipbuilding and in three (3) new regions in Canada (BC, Alberta, and Atlantic Canada).

Examples of possible new skilled jobs and sectors include;

- a) Plant/Equipment Maintenance Technician – automated equipment that is increasingly used in many industrial operations e.g., agricultural processing, food processing, plastics molding, etc. requires maintenance using a blend of electrical, mechanical, and instrumentation skills in order to troubleshoot, maintain, and repair this complex automated equipment. Creating a program to rapidly develop the necessary skills, whether for a new employee, to provide an enhanced skill set for a plant operator to perform limited maintenance tasks/assist dedicated maintenance crews, or to upgrade the skills of an existing journey person to reflect the needs of modern electro-mechanical maintenance in a plant environment, will fill an industry need and create a pathway to well-paid meaningful work
- b) Shipyard Fitter – Shipyards on both coasts have traditionally followed a boom/bust cycle, and often lack sufficient numbers of skilled workers to take on a major project in a timely manner, making them less competitive. Creating a system to rapidly develop foundation skills for “fitters” in the shipyards can alleviate a significant historical issue and provide a pathway to long-term work in

the industry.

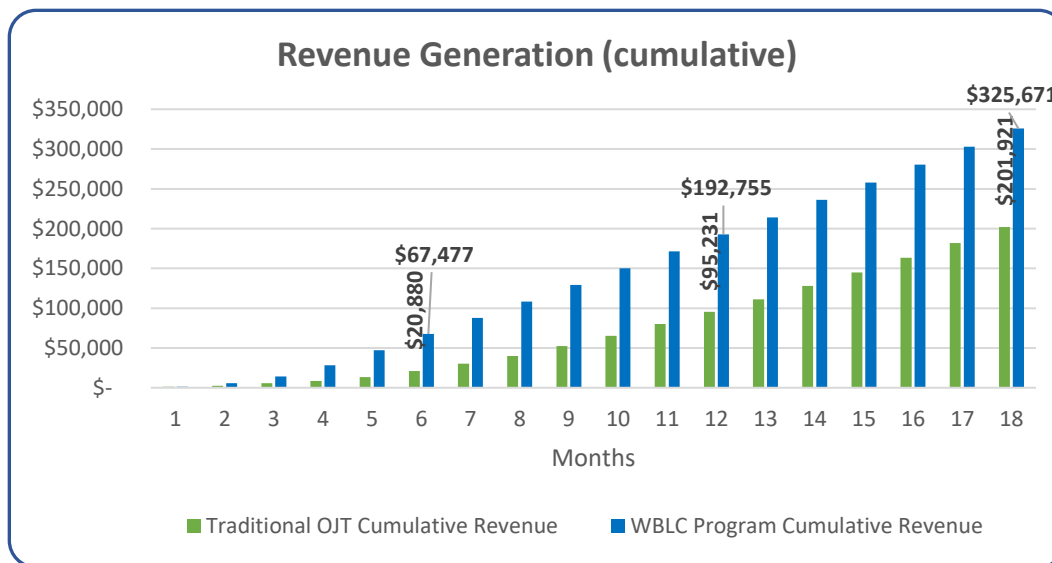
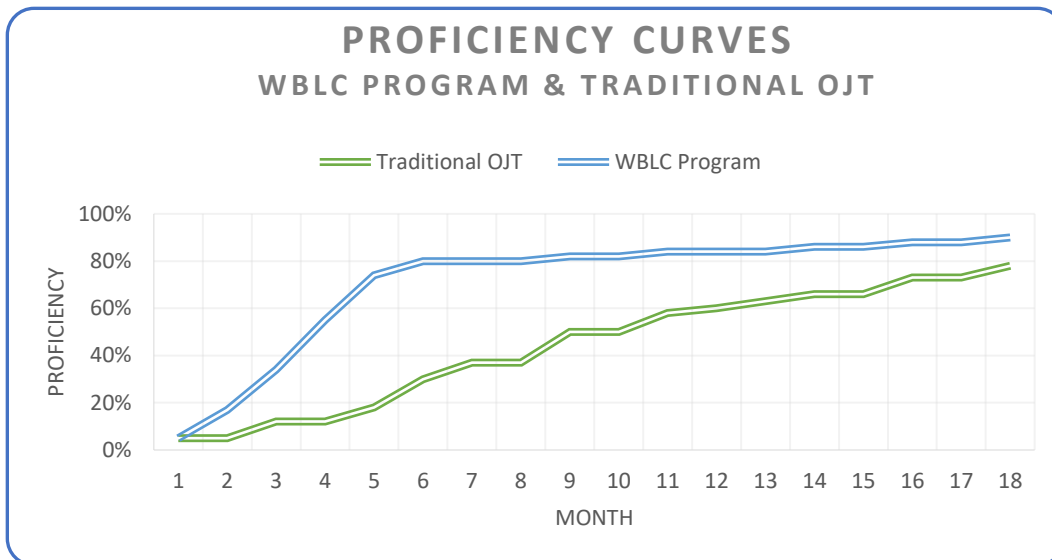
- c) 'Green tech' Operators and Maintenance Technicians – operating and maintaining the various systems related to the operation and control of emerging (and growing) green technology (wind, solar, tidal, geo-thermal, carbon capture, bio-mass energy, etc.) sector. Rapid training in the required skills for new or existing workers will address an employer need, lower costs, and provide a mechanism for continued employment for individuals who might otherwise have been “obsoleted” and made redundant as a result of new technology
 - d) Retrofit Technicians for Energy Efficiency - to meet Canada’s commitments under international climate change agreements means retro-fitting a large proportion of the existing stock in the built environment with more energy efficient green technologies. Installing these technologies and materials in existing structures and linking them to the existing building systems requires skills that are not necessarily present in the trades/occupations that constructed the building in the first place. This is a burgeoning need in residential, commercial, and industrial buildings in Canada, and can create a wealth of new jobs or a pathway to continued or more varied employment opportunities for existing workers.
- 3) Enhance three existing, proven WBL programs (CNC Machinist, CNC Operator, and CNC Programmer) to achieve ‘Rapid Upskilling’ – accelerated delivery (40-50% less time) by closely aligning modular e-Learning and ‘on-the-job’ practical experience plus making Company Trainers more effective by improving their technical training abilities and their interpersonal skills in working with diverse Trainees.
 - 4) Create an innovative system – Structured Competency Gap Coaching – for bridging essential job-specific non-technical competency gaps (transversal skills) – those that are ‘trainable’ skills (approx. 12 of the 22 assessed non-technical competencies) – for current employees via a comprehensive, systematic method. This builds on the highly successful innovation first tested and proven in our previous FSC project. This innovative system will also include an Artificial intelligence-driven learning system for ‘Workplace Technical Conversation Language’ for people new to their work environment, particularly immigrants.
 - 5) Build enhanced software support for the web based WBLC Competency Assessment process that gauges the ‘goodness of fit’ between a potential trainee and the job based on non-technical (transversal) competencies.
 - 6) Build an enhanced software platform and user interface for the web-based system used by Company Trainers for tracking and reporting trainees’ learning progress.

A. Relevance

Employers in many sectors in all regions continue to report significant shortages of capable people in entry- to mid-level skilled jobs. For example, the September 2021 Statistics Canada report on Job Vacancies shows over 41,000 vacancies for “Machine operators” in manufacturing, metal working, food processing, wood processing, plastics, etc. and over 22,000 vacancies for “Assemblers” in manufacturing, electrical equipment, furniture, etc.

This project will:

- 1) Reduce inequities within the labour market by enabling current employees to learn skills and knowledge 'on-the-job' (WBL programs) to adapt to new technologies and business practices.
- 2) Enable more open access to training regardless of income, geography, and background by enabling job seekers and current employees to acquire employer-valued skills that start them on good career pathways.
- 3) Enable employees to adapt to technological change while 'on-the-job', acquiring employer-valued competencies.
- 4) Allow ready access by employees to workplace-based skills training by enabling employers to invest in skills training with high confidence of a significant ROI. The following charts illustrate the differential pay-off from WBL programs vs. Traditional OJT learning.



- 5) Enhance the ability of immigrants to succeed in Canadian workplaces by enabling industry recognition of their actual technical competencies, providing effective training to add required technical skills, and assisting them to acquire the technical language of the Canadian workplace via the innovative AI-driven 'Workplace Technical Conversation Language' program.

B. Innovation and Evidence

We are an evidence-based organization and have applied evaluative methodologies to date in all our programs. In this project, we will build time and resources into the work plan for expanding on the evaluation metrics that we have used to date.

This project will enable many more employers in multiple industry sectors across Canada to access a proven method to screen, select, train, and certify both new and current employees for highly populated skilled jobs that are critical to their success both now and in the future.

Through this project, we will create the following innovations:

- 1) Canada's first systematic ongoing process for identifying employer demand for upskilling/re-skilling employees; nothing currently exists.
- 2) Developing a process to upskill/re-skill existing workforces in a consistent, timely and effective manner by innovations 3 and 4
- 3) 'Rapid Upskilling' - accelerated delivery of proven WBL programs – 40-50% less time.
- 4) Structured 'Competency Gap Coaching' (CGC) – tailored for each individual, including an innovative AI-driven 'Workplace Technical Conversation Language' for people new to the work environment, particularly immigrants.

Our plan provides a new way and, more importantly, a more effective way of doing things that does advance knowledge and is an evidence-informed model. Our process of making all HR transactions decisions in the program entirely based on competencies allows WBLC to re-imagine the current wasteful and not very effective skills training programs administered to out-of-work, at-risk youth, mid-career job seekers through skills enhancement programs across Canada. This current model of providing this type of training is based on improving skills without any direct connection to the skills required in a particular job and without knowing how the trainees' current interpersonal and business competencies (non-technical) match up to those non-technical competences required for that job. Working with several expert 'competencies coaches', we have designed, implemented, and successfully delivered 'proof of concept' for 'Competency Gap Coaching' in the recently completed Mid-Career Workers project funded by FSC.

C. Learning

Our previous FSC project demonstrated that WBL programs, including modular e-Learning, are highly effective with mid-career workers (ages approx. 30-55), as well as youth (ages 18-29). Another recent WBLC project also demonstrated that WBL programs can be successful in attracting women to skilled jobs and effective in encouraging and enabling employers to be more inclusive in their hiring practices.

In this project, we will learn the following:

- 1) What infrastructure is required to deliver WBL programs efficiently on a pan-Canadian basis?
- 2) What new content or different style of presentation might enhance the effectiveness of learning for upskilling employees?
- 3) What are the most effective outreach/marketing channels and messaging to reach interested employers?
- 4) What are the challenges employers must meet in supporting 'Rapid Upskilling' WBL programs e.g., more time for Company Trainers to train?
- 5) What systematic processes and systems are needed to support ongoing efficient identification of employer demand for upskilling/re-skilling employees, across diverse sectors and regions?

D. Equity, Diversity, and Inclusion

WBLC's approach is, by its very nature, inclusive and equitable and therefore fully encouraging of equity, diversity, and inclusion. Our WBLC Assessment Process is based on an objective, competencies-based logic that reduces bias in the selection process. The tests and other elements of our WBLC Assessment Process have been developed and validated by an industrial psychologist following a rigorous and disciplined process. They reliably and accurately measure workers' and job applicants' non-technical competencies and predict their behaviour and performance on the job, regardless of ethnic background, gender, economic, or other social differences.

WBLC's experience with over 60 companies who hired over 600 Youth and Mid-Career Workers through WBL programs is that most companies readily understand and accept competencies principles and are fully open to hiring trainees for entry- to mid-level skilled jobs based on our WBLC Assessment Process. Analysis of our 600 Certified trainees reveals that approximately 15% did not have a high school diploma, affirming that educational background is not a barrier to entry for skilled job training via WBL programs. Approximately 15% of successful trainees were women. While not a high proportion, this is a notable change in enabling women to access skilled jobs that have historically been almost 100% occupied by men, again demonstrating that WBL programs intrinsically support equity, diversity, and inclusion.

Finally, our new innovation, Structured Competency Gap Coaching is founded on the successful innovation – Bridging Essential Employability Competency Gaps – introduced in our previous FSC project . It will enable all skilled workers who have job-critical gaps in their non-technical job-specific competencies to bridge these gaps quickly and easily, to become eligible for WBL training programs OR to be able to make progress on their career pathways. This will allow more workers to be included in WBL programs and will enhance their access to a wider range of jobs.

E. Capacity

WBLC has consistently successfully managed projects of widely ranging scale, by combining effective project management with the ability to build project teams and partners with the type and scale of expertise required. WBLC has successfully delivered all the work packages under eight funded projects totaling approximately \$6.1 million

over the past eight years.

We completed every one of these eight projects per agreed schedules and within agreed budgets – albeit the two latest projects were revised due to the COVID-19 pandemic conditions – and we fully achieved all the agreed targeted deliverables.

Through our experience in successfully completing these previous related assignments, we have identified the competencies required to achieve successful outcomes in projects of this nature. We have worked with and had preliminary conversations with all the proposed stakeholders and partners in this proposed project. The technical resources are in place and are very engaged in the planning of the proposal. We are confident there will be few major surprises.

We have long and positive relationships with the industry associations (CME, CTMA, APMA/CAMM, etc.) who will provide good linkages to employers.

Canada West Foundation has built expertise in a competency-based approach to workforce development, has been involved in multiple multi-year projects, has experience convening and working with employers, and is known for its strong research capacity.

Workforce Strategies International Inc. has deep experience and solid expertise in applying competencies-based learning practices across a range of industries.

Keter Canada is a large employer who has committed to partnering with WBLC.

Manpower Group is our long-standing staffing partner.

Barring unpredictable external disruptions, there is virtually zero risk with respect to the budget, because all significant contracts will be fixed or capped or strictly based on results not activity. We do not permit unlimited time-based contracts.

F. Coherence

The phased, logically-sequenced Workplan activities – with durations based on prior experience – demonstrate the feasibility of meeting project objectives.

We are leveraging the expertise, experience, and connections of our partners and our project team to be highly efficient in accomplishing the defined workplan activities. We have extensive prior experience in carrying out these types of activities and can be confident that the budget is realistic.

The high success rates for WBL programs assure that the cost per successful outcome (an employed and valued certified skilled worker) is a small fraction (approx. 10-15%) of the expenditures being made by provincial governments through current workforce development and worker support programs, with much less satisfactory outcomes.

(3,500 words maximum)

PART 4 - PROJECT WORK PLAN AND BUDGET



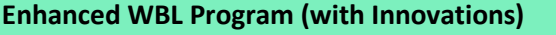
1. Please submit a **one-page work plan** with key milestones and their timeline. **Do not** include detailed activities at this time. If your proposal is selected, we will work with you to develop a detailed work plan.

2. Please complete the project budget template provided to you as part of the application material.
 - a. Include only **new funding** associated with your new project and its additional scope. Please do not include the existing funding that is already part of your current funding agreement with FSC.
 - b. If applicable, identify new funding pending or confirmed for this project from other sources. **This funding should be included as in-kind contributions.** (Please note that funding from other federal sources cannot be counted towards in-kind contributions)

3. Please submit your work plan and budget by sending these files, along with this completed form, to targetedcall@fsc-ccf.ca.

4. You may use the space below to provide comments to accompany your work plan and/or budget.

Budget by Workplan Phases	
Project Management/Admin	3.5%
Project Launch	0.3%
Phase 1: Identify & Engage Employers needing Upskilling/Re-skilling of Current Employees	3.1%
Phase 2: Enhance/Scale WBLC Infrastructure for Program Delivery	6.2%
Phase 3: Build new and enhance established WBL Programs for Rapid Upskilling	34.8%
Phase 4: Create Innovations for Enhancing Employee Non-Technical Competencies	13.8%
Phase 5: Recruit/contract with employers for Pilot Testing of New & Enhanced WBL Programs (Rapid Upskilling)	8.8%
Phase 6: Deliver Pilot WBL Programs with Employers for Rapid Upskilling/Re-Skilling of Current Employees	28.0%
Phase 7: Final Reporting & Project Close	1.5%

Workplan Colour Legend	
	New WBL Program
	Innovation
	Enhanced WBL Program (with Innovations)

(100 words maximum)

PART 5 - DECLARATION

By submitting an application, the lead organization and its partners agree to the requirements of the following sections, detailed in the guidelines outlined for this funding call, and they affirm that they comply with and/or commit to the following:

- Organization eligibility.
- Active support for co-creating and carrying out an evaluation with an FSC-approved evaluator, if FSC decides an evaluation is appropriate for this project.
- Active engagement in knowledge mobilization activities related to the project.
- Compliance with the Tri-Council Policy Statement on the Ethical Conduct of Research Involving Humans.
- Confidential due diligence inquiries from Future Skills Centre into the applicant.

Signature



Name of signing authority

Rod Jones

Date

2021-11-02