Please note that while LEEDing Operations & Maintenance was approved by the SPF Working Group, the Myko-related portion of the application was not approved.



Project Title

Sustainability Projects Fund (SPF) McGill Office of Sustainability (MOOS) 1010 Sherbrooke St West, Suite 1200 Montreal, Quebec H3A 2R7

LEEDing Operations and Maintenance



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Bureau du développement durable 1010, rue Sherbrooke Ouest, bur. 1200 Montréal (Québec) H3A 2R7

SPF Application Form Section A - Cover Page

Fill out this Cover Page and save it to your files for future reference before uploading it on the SPF website.

	In one to three sent	ence(s), explain what you	r project is about:		
	and analyze sustainal	ole building management p	ractices beyond the initial	constru	pes, in order to develop, implement ction/renovation of the building. uring consistency & transparency.
Indicate the Mc	Gill campus(es) whe	re your project will be im	plemented:		
\bigcirc Macdonald		Gault Reserve 🔘 Bellain	rs Research Institute (Other	· (Specify):
	mate Budget ed to the SPF (\$):	160,358	Approximate Total I Budget (incl. other so funding if applical	urces of	170,358
		nse(s) for your project the	PHIMOHOLINO 143%: I	LEED cei	rt.: 9%; Myko: 35%
Indicate v	vhich of the followin	g team members			
will be	in charge of monitor	ring the project's budget (maximum 1 person):		Jerome Conraud
will be	the Project Lead (Pro	ject Lead will be the contact _l	person for the SPF Staff):		Philippe St-Jean
The Proje	ct Lead stays for the	entire duration of the pr	oject:	X Y	□ N
transition	lain in a few sentenc n plan for one or bot ble continuation of th	h of the Project Lead for			
PROJECT TE	AM MEMBERS				
					arginalized communities (e.g. women, grants, people with disabilities).
1. Student Tean	n Member (read detail	s about SPF Evaluation Cri	teria #5 for more informa	tion)	
First Name	& Last Name TBD		Affiliation (select one))	Undergraduate (UG)
Phone (dayti	me; only put #)		Specify if Other		
Email			_ _ Faculty/Unit/Organi	zation	McGill ENVR 401 ASR team member
2. Staff Team M	ember (academic or	administrative staff) (rea	d details about SPF Evalu	ation Cı	riteria #5 for more information)
	& Last Name Philipp	•	Affiliation (select one)		Administrative Staff (ST)
	me; only put #s)	+1 (514) 398-7196	- Specify if Other		
Email	philippe.st-jean@r	ncgill.ca	Faculty/Unit/Organi	zation	Design Department
3. Additional Pi	oject Team Member				
	& Last Name Domin		Affiliation (select one))	Administrative Staff (ST)
	me; only put #s)	+1 (514) 398-2218	Specify if Other		
Email	dominic.gagnon2@	@mcgill.ca	_	zation	Building Operations
4 Additional Pr	oject Team Member		_		
	& Last Name Kevin F		Affiliation (select one))	Administrative Staff (ST)
	me; only put #s)	+1 (514) 398-6452	Specify if Other		Administrative Staff (ST)
Email	kevin.hart@mcgill.		_ Faculty/Unit/Organi	zation	Building Director
					Danaling Director





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SPF Application Form Section A - Cover Page

PROJECT TEAM MEMBERS (CONT'D)

	•	,			
5. Additional Proj	ect Team Membe	er			
First Name & I	ast Name Steph	anie Leclerc		Affiliation (select one)	Administrative Staff (ST)
Phone (daytime	; only put #s)	+1 (514) 398-	2096	Specify if Other	
Email	stephanie.h.lecle	rc@mcgill.ca		Faculty/Unit/Organization	Procurement Services
6. Additional Proj	ect Team Membe	er			
First Name & I	ast Name Jeron	ne Conraud		Affiliation (select one)	Administrative Staff (ST)
Phone (daytime	; only put #s)	+1 (514) 398-	5870	Specify if Other	
Email	jerome.conraud@	ာ့mcgill.ca		Faculty/Unit/Organization	Utilities and Energy Management
7 Additional Duci	oot Toom Mombo	\- <u>-</u>			
7. Additional Proj	ast Name Richa			Affiliation (select one)	A and amin Staff (AC)
Phone (daytime		+1 (514) 398-	5007	Specify if Other	Academic Staff (AC)
	richard.janda@m		3097		AA CIUE III CI
Email	nchard.janda@m	cgiii.ca		Faculty/Unit/Organization	McGill Faculty of Law
8. Additional Proj	ect Team Membe	er			
First Name & I	ast Name TBD			Affiliation (select one)	Undergraduate (UG)
Phone (daytime	; only put #s)			Specify if Other	
Email				Faculty/Unit/Organization	McGill ENVR 401 ASR team member
To list more membe	ers, fill a 2nd Cover F	Page form and save	e it separately.	Then merge with your 1st Cover Pag	ge before uploading to the SPF website.
OPTIONAL:					
			oluntarily se	elf-identifying as members of	marginalized communities:
-	narginalized con		Other (specif	<u>v</u>)	
Specify if Othe	r(s) and/or add	more:			
Relevant link(s): project and/or team		cial media re:			
How did you lear	n about the SPF?	(select one)	SPF Staff	Specify if Other	
P	ease check the b	oxes to confirm	that you hav	ve read and agree to the follow	wing information:
if needed, the SP	F Steward, the SPF A	dministrator and/o	or the SPF Worki		jects are not confidential. We agree that are the application and/or communicate eam to stakeholders, etc.).
be disclosed (e.g	for contact informa	tion or through ou	r application an	d progress/final reports published o	s well as their participation to the project on the SPF website). Ve before sharing your project online.
If any aspects of this box in all co	the <u>SPF Terms & C</u> nfidence. Also note	onditions are uncle that, if your projec	ear to you, cont et is approved, t	he Project Leads and the person m	we agree to respect them. t your application so that you can check onitoring the project's budget will have s before officially starting the project.





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SPF Application Form Section B - Project Overview

Answer the following questions and save this form to your files for future reference before uploading it on the SPF website with Section A - Cover Page.

Project Title	LEEDing	Operations and Mainte	nance			
Project Lead First & Last N	ame	Philippe St-Jean	Phone (daytime)	+1 (514) 398-7196	Email	philippe.st-jean@mcgill.ca

Before you fill out this Project Overview, make sure you have consulted all related application documents online, including the SPF Evaluation Criteria, the SPF Glossary, the SPF Project Flow Diagram, and the SPF Sustainability Brief. Read all questions first before starting answering them. Answer exactly what is being asked: go straight to the point and stay clear and succint. If need be, you will have a chance to include additional information in appendices at a later stage of the application process. The characters' limit (including spaces) is indicated for each question so that you can draft your answers in Word first if you want to (you will have to remove all formatting in Word before pasting here). Note that any skipped line will make you loose the line's characters (approx. 140 characters). Once you successfully pass this first stage of the application process, the SPF Staff will ask you to fill a Project Plan, in which you will specify your expected impacts, S.M.A.R.T. objectives and main activities, outputs, success indicators, stakeholders, main risks and mitigation measures, preliminary timeline, and costs. Although it is OK for you not to have all these details ready at this stage, having thought about them in advance will help you succeed in responding to the following questions.

Project Vision To make McGill THE institutional reference point for sustainable construction, operation & maintenance of buildings.

A vision depicts the ideal future that someone is hoping for. Thus, a vision is a dreamed aspiration that someone intends to lead or contribute to, and it does not necessarily need to currently seem realistic. As such, tell us how you see McGill campuses in an ideal world once your project is completed successfully. The vision does not need to be completed within the timeline of the SPF funding.

Project GoalFurther the institutionalization of sustainability by implementing sustainable operations and maintenance practices in the 4 buildings types on campus, thus creating the framework and tools to apply these practices across campus.

A goal is the overarching desired tangible realization (and thus change) to be achieved within the project's lifespan. The goal contributes to the project's vision in a palpable and realistic manner. The project's goal may last longer than the SPF funding lifespan. In line with the SPF mandate, when achieved, your project's goal should result in a culture shift (e.g. change in ideas, habits, behavior).

1. What is the specific sustainability-related issue/challenge that you see on McGill campus(es) that you want to address? (530 char. max. ~80 words)

McGill lacks a holistic and highly structured approach to the reduction of the ongoing environmental impacts of operating and maintaining buildings on campus. The current approach does not transcend all departments and is highly fragmented. Those departments that are trying to implement sustainable practices often use arbitrary targets with varying metrics. This renders the institutionalization of sustainability almost impossible because there is only a vision without a clearly defined path to its achievement.

2. What is your project idea and how will it help address the above issue/challenge? (2000 char. max. ~300 words)

Go through the process of certifying LEED O+M the 4 building types on campus: education, administration, housing and athletics. By doing so, the framework, and associated policies and documents, would be developed to implement the sustainable operation and maintenance practices identified by LEED to all buildings on campus. This would set clear sustainable-performance objectives for buildings and procurement, and define the path to achieving them. More importantly, it would create consistency between the operation & maintenance practices on campus and the construction & renovation practices implemented through the SPF project LEEDing Change. By having the same specific goals and precise timelines across departments, LEED O+M certification will promote a synergistic approach to the implementation of sustainable practices between departments. This process will greatly contribute to the institutionalization of sustainability by providing a common platform through which every department can target its sustainable initiatives and communicate performance. In additional to certification, this project would include a digital display of the real-time building performance results (energy, water, waste, transportation and occupant experience) in the foyers of each of the targeted buildings. These performance results are based in part on an automated interactive survey of building air quality, and occupant comfort & transportation habits. As such, occupants will have a medium to communicate their interaction with the building and inform strategies to improve indoor environmental quality and access. The display and associated surveys would help further institutionalize sustainability by raising occupant awareness of sustainability issues and the progress on performance levels of each individual building.

3. What impacts do you want your project to have on McGill structures, processes and/or systems? Also specify how this should positively transform peoples' behaviors/perspectives/habits on McGill campus(es). (935 char. max. ~135 words)

The project will create and implement: a continuous monitoring mechanism for occupant transportation habits; a site management policy to protect & restore habitat, manage rainwater, reduce heat island effect & light pollution; an indoor & outdoor water efficiency strategy; a holistic energy efficiency strategy; a building commissioning strategy; a refrigerant management strategy; a sustainable maintenance strategy; an indoor air quality, lighting and thermal performance strategy; AND contribute to: an ongoing purchasing & waste policy; a green cleaning policy; and an integrated pest management policy.

By creating the strategies, policies and tools required for LEED O+M certification, the project would facilitate and encourage sustainable practices across departments. It would also provide clear and concise guidelines to measure and track sustainable performance.





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SPF Application Form Section B - Project Overview

4. What arrangements will make these impacts continue after the SPF funds have been spent? (530 char. max. ~80 words)

A large portion of the LEED O+M certification requirements are centered around the creation & implementation of general procedures related to procurement, operations and maintenance. These procedures are not project specific and as such, their integration into McGill's standard practices would ensure their continuous application regardless of whether buildings on campus are attempting certification. They also ensure that sustainable practices continue beyond the employment of those involved in their implementation.

- ABOUT SUSTAINABILITY -

5. How do you intend to address social, environmental, and/or economic dimensions of sustainability in your project's objectives? (1350 char. max. ~200 words)

LEED O+M certification is specifically designed to address social, environmental and economic dimensions of sustainability in the operation and maintenance of buildings. As such, the LEED O+M certification of a building will inherently address all of these aspects of sustainability. The most notable impacts of the integration of LEED 0+M certification being; a reduction in energy & water consumption; a reduction in ozone depletion & GHG emissions; a more socially responsible procurement policy; an improvement in indoor air quality & building occupant comfort; and an increase in recycling & reduction in waste. However, LEED O+M does not currently include tools to directly influence building occupant behavior. As such, by including the Myko application in this project and tweaking it to incorporate building specific occupant behavior analysis and corresponding behavioral adjustment recommendations, this project would be developing a completely new dimension to the optimization of the environmental footprint of any given building. The addition of this behavioral conditioning of occupants is so innovative that the USGBC, the organization responsible for all LEED certifications, has agreed to participate in the pilot and has expressed great interest in incorporating the software into their international certification standards.

6. In addition to having sustainability-related objectives (05), how will you ensure that your project is also planned and managed sustainably (e.g. material local sourcing; accessibility - see the SPF Sustainability Brief)? (530 char.max. ~80 words)

The project will leverage the resources and experience that have been developed through other SPF projects on campus (see item $8\,$ below). Additionally, the project members were selected based on their particular field of expertise, work related responsibilities and ability to contribute directly to the outcome of the LEED certification. This will eliminate any possible work redundancy and accelerate the integration & implementation of the new sustainable practices. It will also eliminate the need for external consultants.

Beside appear the five categories in which the McGill students, faculty, and staff think the University can make a positive difference within society. The McGill Sustainability Strategy, Vision 2020, describes a specific vision and goals for each of these categories, as they were defined by the McGill direct stakeholders through a comprehensive consultation process.

- 7a. In the figure, check all the categories under which your project falls (you can select only one if no others apply to your project).
- 7b. Among the categories that you checked, select the one that you think is most relevant to your project:

Dominant Category:Operations

Vision 2020 Categories · Exploring Sustainability · Collaborative · Finance & Investment · Community-Engaged RESEARCH · Diversity & Equity · Social-Ecological Footprint Transparency · Interdisciplinary |X|X· Inclusiveness · Applied Student Research Accessibility **GOVERNANCE &** Experimentation ADMINISTRATION · Accountability · Leadership · Citizenship · Human Resources · Leadership · Lifelong Learning **EDUCATION** Experiential Learning · Sustainability · Materials \boxtimes Knowledge & Skills Energy **OPERATIONS** · Food X · Water Transportation · Wellness & Health · Land · Community Engagement Living Lab · Sense of Belonging CONNECTIVITY Accessibility X · Community Spaces · Knowledge Sharing 7c. How does your project concretely contribute to advancing the vision and goals described under the Vision 2020 category that is most relevant to your project? (800 char. max. ~115 words)

Gov. & Admin: 1. Use energy and water efficiency as an on campus investment revenue source; 2. Transparency and accountability in the sustainable performance requirements of buildings on campus. Oper.: 1. Coherent energy & water efficiency strategy with specific targets; 2. Holistic material selection protocol across all departments; 3. Ongoing analysis of transportation habits and integration of sustainable initiatives such as carpooling; 4. Using the campus as a living lab to inform in-house research and industry. Connect.: 1. increase in occupant wellness & health; 2. Engaging community through survey participation; 3. Sharing knowledge through performance displays and project documentation; Educ.: 1. Developing the knowledge, tools & skills of operation & maintenance staff.





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SPF Application Form Section B - Project Overview

8. How does your project relate to any current/past initiative(s) on McGill campus(es) (e.g. other SPF projects)? If applicable, also indicate: 1) how your project complements the initiative(s), and 2) how you will partner with them in implementing your project (e.g. working together on some activities, sharing material/resources/costs). (2000 char. max. ~300 words)

The project would incorporate the work done in the following SPF projects: SP0103 & SP0077: waste data to contribute to waste management strategy; SP0026 & SP0044: dashboard used for performance analysis; SP0040: installed displays used to communicate performance; SP0020: transportation data to contribute to benchmarking; SP0109: electric equipment to contribute to certification; SP0024: to contribute to waste management strategy; SP0146: human resource to serve both projects; SP0105: build on current procurement policies through the participation of the sustainable procurement officer; SP0130: Myko software to contribute to real-time building occupant behavioral analysis, education and the gamefication of sustainable behavioral change. There is also the potential to have the USGBC (U.S. Green Building Council) integrate Myko into their LEED O+M dynamic certification process. In addition to the SPF projects above, the following projects will also contribute: Newad Digital Signage, to be installed in several buildings across campus, will provide a free digital platform to display building performance; Rainwater management project under SPF review would contribute directly to LEED certification for new construction and operations & maintenance; The data from the installation of smart electric meters across campus will directly contribute to certification; The water meters installed across campus in the fall of 2016 will be connected to the electric smart meters in the buildings targeted in this project, and will directly contribute to certification. Several initiatives, previously put on hold by the Buildings & Grounds department, will be revived and incorporated into this project, including the reduction of salt use, organic waste management, the production & use of biofuel in grounds equipment, the implementation of a master site improvement plan, etc .

9. List the other stakeholders on/off of McGill campus(es) that you will partner with for your project. (530 char. max. ~80 words)

Note: Under Stage 2 of the SPF application process, in the Detailed Project Plan, you will be asked to select your key stakeholders and specify how they will participate in your project. You will also be able to submit any documents that you want in appendices to demonstrate your communications and agreements with the key partners of your project (e.g. support letters, emails).

Building directors for each of the targeted buildings; District supervisors for the 3 districts in which the targeted buildings are located; members from the following FMIS departments: SHHS, Athletics, Utilities & Energy Management, Building Operations, Buildings & Grounds, Design, Environmental Health & Safety, Procurement Services, Project Management and Campus & Space Planning; as well as the Myko software team and the USGBC.

10. What key recommendations and/or lessons learned from current or past initiative(s) do you plan to build your project upon? (800 char. max. ~115 words)

The only sustainable initiatives that continue to have a truly ongoing impact are those that have created tools and policies that are documented and structured to such a high degree that they may be carried forward without the help or input from the original project participants. The LEED framework already addresses the structure and documentation of the project and, as such, will free the project team to focus on the quality of the tools and policies specific to McGill's context. The synergies between the LEEDing Change and Sustainable Procurement Officer projects and this initiative, would ensure a more holistic approach to the challenge of institutionalizing sustainability, for which each individual project would fall short otherwise.

- ABOUT SPF FUNDING -

11. Why do you think that your project should be funded by the SPF rather than by, or in addition to, another source of funding (i.e. what aspects of your project make it specifically relate to the SPF mandate)? (530 char. max. ~80 words)

This project would be a leap ahead of any current sustainable operational initiatives on campus. It will require members of every department in FMAS to go above and beyond their current mandates and invest additional time & energy into its implementation. As such, to avoid the red tape & roadblocks associated with traditional financing mechanism, this initiative would be structured as a pilot project with each department contributing the labour of their volunteer members. Capital costs would be borne by the SPF.

12. What other sources of funding have you approached for your project? If applicable, also provide the relevant details on these sources (e.g. responses given, amounts already committed, what these amounts will pay). (530 char. max. ~80 words)

The project is structured to leverage funding & resources already allocated to other projects on campus. As such, the initiative aims to maximize its impact with minimal investment. By pursuing SPF funding specifically tied to the LEED certification process, the funds required for this project will circumvent the short-term oriented funding policies of the cash strapped FMAS departments. The funding portion for Myko would ensure the application becomes a game changing tool in building performance optimization.

Thank you! After you save it to your files, you can now upload this form and Section A - Cover Page on the SPF website to complete this first stage of the application process. The SPF staff will contact your team within two weeks to provide feedback and accompany you towards next stage - Project Plan. Congratulations for applying to the SPF!

Section B - Project Overview - p.3 of 3 Date 8/26/16





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SPF Application Form Section C - Project Plan

Answer the following questions and save this form to your files for future reference before uploading it on the SPF website.

Project Title L	EEDing Operations and Mainten	ance				
Project Lead First & Last Nam	Philippe St-Jean	Phone (daytime)	+1 (514) 398-7196	Email	philippe.st-jean@mcgill.ca	_

Before you fill out this Project Plan, make sure you have consulted all related application documents online, including the <u>SPF Evaluation Criteria</u> and the <u>Project Plan Flowchart</u>. Also make sure to consult the <u>SPF Glossary</u>, as it clearly defines each term <u>underlined</u> in this form, as well as the <u>Sample Project Plan</u>, which gives some concrete examples for each term. Last, also do not forget to refer back to your 'Section B - Project Overview' to make sure that all the details you specify here align with it. For more support, consult the SPF website and the SPF staff.

Project Vision To make McGill THE institutional reference point for sustainable construction, operation & maintenance of buildings.

As indicated in your Section B - Project Overview.

Project Goal

Further the institutionalization of sustainability by implementing sustainable operations and maintenance practices in the 4 buildings types on campus, thus creating the framework and tools to apply these practices across campus.

As indicated in your Section B - Project Overview.

1. List 1 to 3 main impacts you expect/wish to have with your project - these must relating to the above Vision and Goal:

As per question #3 of your Project Overview. If you think of more than 3 impacts, only indicate the ones you think are the most relevant to sustainability at McGill.

	Expected/Desired Impact (200 char. max. ~30 words)					
A	Create the framework, tools and processes to be able to implement sustainable operations and maintenance practices in all buildings on campus regardless of their age or usage type.					
В	Change the way that all the FMAS depts. communicate and collaborate re: the construction, operation & maint. of buildings to ensure continuity in the application of sustainable practices.					
c	Integrate Myko into LEED certification as a new and revolutionary approach to optimizing building performance through the gamefication of sustainable occupant behavior.					

2. List 4 to 7 of your <u>objectives</u> to reach the above <u>impacts</u> with your project. Make your objectives as <u>S.M.A.R.T.</u> as possible. For each objective, indicate one key Success Indicator. (see <u>SPF Glossary</u>, <u>Sample Project Plan</u>, and <u>Sample Indicators</u>)

Of your 4-7 objectives, you should have a minimum of one "monitoring" objective, one "outreach" objective, and two "other" objectives. A monitoring objective ensures or verifies the progress and effectiveness of your project, thus allowing you to learn from it. An outreach objective ensures that your project is adequately communicated to the McGill community to increase stakeholders' awareness of and/or participation in your initiative. These two types of objectives might lead to project monitoring and outreach activities (next question). The nature of the 2-5 other objectives is for you to decide and tailor to your project. If you have more than 7 objectives, only indicate the ones that relate best to the above impacts and thus to sustainability at McGill. For each objective, specify the key success indicator(s) that you think should be used to assess the objective's degree of achievement/completion. Your indicators can be qualitative or quantitative (e.g. number of participants, participant testimonials, website analytics, quantity of energy saved, etc.). See the document Sample Indicators for inspiration.

#	Type of Objective	S.M.A.R.T. Objectives (125 char. max. ~20 words)	Related Impact(s) (A, B, C)	Related Key Success Indicator(s) - also indicate targeted numbers for each (85 char. max. ~15 words) (ignore the circles for now)	
1	Other	Reduce water consumption as required to meet or exceed the minimum performance requirements of LEED O+M	А	Reduce consumption to achieve LEED cert. for 3 of 4 buildings by Mar. 2017.	\supset
2	Monitoring	Gather water consumption data.	А, В, С	Connect 4 water meters by Feb. 2017.	
3	Outreach	Display sustainable building performance in real time to building occupants.	А, В, С	Display performance on at least 1 screen in at least 3 of 4 buildings by Aug. 2017.	•
4	Other	Complete the LEED O+M certification process for the 4 targeted buildings on campus by Aug. 2017.	A, B	Achieve a minimum LEED O+M Silver rating for 3 of the 4 targeted buildings.	
5	Monitoring	Modify Myko to make it a tool to monitor occupant consump. behavior and influence behavioral change by Apr. 2017.	В, С	Min. tracking by surveys for all 4 metrics; Behavior notifications for all 4 metrics.	•
6	Other	Write new Grounds, Procurement, Operations and Planning policies and a 5-year Site Improvement Plan by May 2017.	A, B	All policies and plans to meet minimum requirements of LEED O+M specifications.	•
7	Other	Develop methodology to target future buildings for sustainability improvements by Sept. 2017.	А, В, С	Methodology able to identify at least 5 buildings per year to seek certification.	





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SPF Application Form Section C - Project Plan

3. List the 4 to 7 most important <u>activities</u> that you need to conduct to reach the objectives you listed before. Make these as <u>S.M.A.R.T.</u> as possible. Also indicate at least one <u>output</u> and a key <u>success indicator</u> per activity. (<u>Sample Project Plan</u>)

Your main activities should relate to the objectives you listed. As such, if you consider this crucial to your project, you may end up having an activity that relates to your monitoring objective(s) (e.g. developing a survey, any other activity that will help you and other stakeholders learn through your project) or to your outreach objective(s) (e.g. producing and promoting a video about the project). For each activity, indicate the output(s) that will be created as a result, such as a deliverable (e.g. video, report), training, website, network, design plan, or any other output adding value to the project and helping reach objectives/impacts.

S.M.A.R.T. Main Activities (125 char. max. ~20 words)	Related Objective #(s)	Resulting Output(s)	Related Key Success Indicator(s) - also indicat targeted numbers for each (85 char. max. ~15 words) (ignore the circles for now)
Connect water meters to smart electric meters	2	Consumption data for H2O	All 4 meters connected.
Add to Myko: 1.tracking occupant transportation, water, energy, & waste mgmt habits; 2. gamefication of behavior improvement			All 4 behaviors tracked and associated behavioral change notifications developed.
Register each of the 4 buildings for the LEED Dynamic Plaque automated tracking and certification process.	4	•	Performance in each of the 4 buildings is tracked by certification.
Modify or upgrade plumbing fixtures in McConnell Arena, Trottier, and Brown buildings.	1		Water consumption meets LEED O+M certification requirements.
Develop Site Management Policy	6	Written official policy	Comprehensive written policy adopted by Grounds Dept.
Develop Facility Maintenance and Renovation Policy	6		Comprehensive written policy adopted by Operations and Project Management Depts
Modify Green Cleaning Policy to meet requirements of LEED O +M	6	_	Comprehensive written policy adopted by Operations

Provide any additional qualitative details that you would like to share with the SPF about your activities. (800 char.max.~115 w.)

There are many key activities not listed above, however, other than the activities related to the Myko software, all activities required to achieve LEED O+M certification are clearly identified by the LEED O+M rating system documents. As such, the methodology and success indicators are all predefined by the certification body and do not require McGill's teams to develop their own. This is the main reason for seeking LEED O+M certification as opposed to introducing these initiatives independently. The project team's efforts related to each of the LEED requirements will therefore be more axed on identifying opportunities that already exist within McGill and exploiting the synergies between them to achieve the max. increase in sustainable performance for the smallest possible investment.

4. Now, about the circles...: Select a total of 3 success indicators that you wish to track more seriously and report on during your project out of all those you indicated for your objectives and activities. These 3 indicators should be the most relevant to your goal and to creating a culture of sustainability at McGill and they should be relatively easy to monitor.

When selecting your indicators, make sure that you will have/plan the time and resources you will need to allocate to monitor them throughout the course of your project. Before you start your project, the SPF may ask you to change a chosen indicator for another that seems more pertinent to the SPF or to the University sustainability reporting. Note that, in addition to these three indicators, you will be asked to track four other generic ones that will be specified in the Award Letter.

You will be required to indicate progress towards your final 7 indicators in your progress and final reports to the SPF. Because the SPF values the experiences and learning that occurs during your project (not only results), these reports will also gather related information through open-ended questions.

We have selected the 3 Success Indicators that we wish to monitor during the project:

5. For all projects, there exist various <u>risks</u>, i.e. factors or preconditions whose probable presence or absence could negatively influence the successful achievement of the project's objectives. Please indicate 2 to 4 main risks for your project and the mitigation measures you intend to use/implement to reduce their likelihood. (advise if you have more to list)

It is particularly important that you list all risks to health and safety of the project's team members, direct and indirect stakeholders, and/or the environment.

Main Risks (65 charac. max. ~9 words)	Preventative Measures (65 char. max. ~9 words)
Cost of water fixture upgrades are higher than expected.	Alt. funding from FMAS Depts. will be sought from the beginning.
Newad TV project doesn't move forward.	Performance display to be incorporated directly into Myko.
McConnell arena energy efficiency project doesn't move forward.	All possible LEED O+M reqs. will be implemented based on budget.
Myko portion of project not funded.	Certification of buildings will not depend on Myko integration.





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SPF Application Form Section C - Project Plan

6. List the 3 to 10 stakeholders on/off McGill campus(es) that will be involved with and/or impacted by your project, and indicate their respective role in your project.

Stakeholder's Name(s)	Affiliation	Role in the project	Confirmed support/ participation
Jerome Conraud	McGill Energy Manager	Develop energy efficiency strategies.	Yes
Dominic Gagne	McGill HVAC Manager	Validate and implement air quality strategies.	Yes
Stéphanie Leclerc	McGill Sustainable Procurement	Dev. & implement reqrd procurement policies	Yes
Jonathan Rousham	McGill SHHS Maint. Manager	Implement reqrd oper. changes in residences	Yes
Donald Nycklass	McGill SHHS Associate Director	Approve reqrd oper. changes in residences	Yes
Franco Nardi	McGill Supervisor Property Maint.	Dev. & implement LEED sust. Grounds' policies.	Yes
Kevin Hart	McGill Building Director	Implement required operational changes	Yes
Angelo Battista	McGill Athletics Assistant Man.	Implement required operational changes	No
Brian Karasick	McGill Senior Campus Planner	Dev. & implement sust. planning policy	Yes
Richard Janda	Myko President	Dev. & implement software modifications	Yes

- PRELIMINARY TIMELINE ASSUMING THAT PROJECT STARTS IN 3 MONTHS -

Note: If your project is approved, you will be asked by the SPF staff to fill out a more detailed timeline before any funding can be allocated.

Key Tasks and/or sub-tasks	Related Output(s)	Responsible Team Member(s) and Time (initials + if paid, estimated # of hours to do task)	Start Date	End Date
Connect water meters and program Pulse	H2O usage data	PSJ, JC	Jan 9, 2017	Jan 27, 2017
Register for LEED Dynamic Plaque	Cert. platform	PSJ	Jul 10, 2017	Jul 21, 2017
Connect Pulse dashboard to Dynamic Plaque	LEED cert. inputs	PSJ, JC	Jul 10, 2017	Jul 21, 2017
Modify plumbing fixtures in Trottier building	Lower H2O usage	PSJ, KH	Jan 9, 2017	Feb 24, 2017
Modify plumbing fixtures in Brown building	Lower H2O usage	PSJ	Jan 9, 2017	Feb 24, 2017
Modify plumbing fixtures in McConnell Arena	Lower H2O usage	PSJ, AB	May 1, 2017	Aug 25, 2017
Add new functionality to Myko software	Occup. perf. data	PSJ, RJ	Dec 5, 2016	Mar 3, 2017
Develop Site Management Policy	New policy	PSJ, FN, AB, DB, JR	Dec 5, 2016	Jan 27, 2017
Write remaining LEED procurement policies	New policies	PSJ, SHL	Dec 5, 2016	Apr 3, 2017
Develop Site Improvement Plan	5 year plan	PSJ, BK, FN, AB, DN, JR	Dec 5, 2016	Apr 24, 2017

Provide any additional details that you would like to share with the SPF about your timeline. (530 charac. max. ~80 words)

Given the scope and scale of the initiative, there are many more key tasks that are part of this project. They will be listed and described in greater detail in the detailed timeline to follow project approval. The timeline will also be adjusted to reflect additional resources brought to the project through additional applications being pursued by Myko. In particular, this application focuses only on "musthave" elements for the existing Myko platform, with "nice-to have" elements to be added with further funds.

- ADDITIONAL INFORMATION -

Qualifications: Where relevant, the profiles/CVs of the people to be directly involved in the project are attached:

List of appendices, if any (max. 7 pages of appendices, excluding profiles/CVs):

If a McGill department/unit is to contribute financially to your project, make sure to include a support letter from its Financial/Budget Officer confirming contribution.

Note that the SPF Working Group will evaluate your project based on your main application forms (i.e. Sections A, B, and C), not on appendices.

Appendix #	Title/Topic of Appendix	Total Qty of Pages
1	Description of changes to Myko and how they apply to this project.	2
2	Memorandum of Understanding between Myko and McGill on intellectual property	1
3	Description of LEED O+M certification vs. LEED BD+C certification	1
4	Task list for position created under this project	1
5		
6		
7		





Fonds des projets durables

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- BUDGET -

When completing this form, please refer to the <u>SPF Guide to Budgeting</u> for additional information and explanations. If you would like to submit a more elaborated Financial Model/Business Case in addition to this SPF project budget (for instance, because of the nature of your project; e.g. you plan to generate some revenues through selling some items, revenues that will then allow your project to become financially self-viable), please develop it separately and join it as an appendix to this application. If you need guidance on how to elaborate a Financial Model/Business Case, see <u>suggested resources on the SPF website</u>.

REVENUES

Please indicate any funding you will receive or anticipate receiving to complete your project, including funds from McGill Departments and Units. Reminder: For McGill department/unit's financial contributions, make sure to include a letter from its Financial/Budget Officer confirming contribution in appendix. Note that this contribution will also need to be confirmed at the end of the project.

	(A) Funding Source(s)	(B) Amount (\$)	(C) Status
1.	Sustainability Projects Fund (SPF)	\$160,358.00	Unconfirmed
2.	Facilities Management and Ancillary Services	\$10,000.00	Confirmed
3.			
4.			
	REVENUES GRAND TOTAL - add all (B)	\$170,	358.00

EXPENSES

1. Salaries & Wages (only if applicable)

If applicable, indicate the job position(s) under your project and the associated costs. See the SPF Guide to Budgeting for further instructions.

(A)	(B)	(C) ~# of Hours	(D) ~# of	(E) Hourly	(F) Subtotal (\$)	(G) 20 %	(H) Total Cost (\$)	(I) Funding
Year	Position Title	per Week	Weeks	Wage* (\$)	(C x D x E)	Benefits	(F x G)	Source(s)**
17	Myko Campus Coordinator	19	10	\$23.50	\$4,465.00	1.2	\$5,358.00	SPF
						1.2		
						1.2		
						1.2		
		\$5,358.00						

2. Other Expenses

Indicate all of the expenses associated with your project; think back to all of your project's activities and all of the items that you need to complete them. It may be beneficial to group by category (not required); if you do so, please use the following categories: Materials-Supplies, Equipment, Printing, Events, Transportation, One-time Profess. Fees, and Miscellaneous.

(A)	(B)	(C)	(D)	(E)	(F)	(A)	(B)	(C)	(D)	(E)	(F)
	Item Description	# of	Unit Cost			Year	Item Description	# of	Unit Cost	Total Cost	Funding
Year	(<u>inputs</u>)	Units	(\$)	(\$) (C x D)	Sources**		(<u>inputs</u>)	Units	(\$)	(\$) (C x D)	Sources**
17	LEED Certifications			\$15,000.₩	SPF						
17	H2O meter connct.			\$20,000.	SPF						
17	H2O fixture upgrd.			\$40,000.	SPF						
16	Vent. analysis			\$2,500.0	SPF						
17	Vent. upgrades			\$7,500.0	SPF						
17	Miscellaneous			\$10,000.	SPF						
17	Myko sensors			\$15,000.	SPF						
17	Myko app. develop.			\$45,000.	SPF						
17	Plumbers			\$10,000.	FMAS						
		·									
Expenses Subtotal 2 - add all (E)			\$165,	00.00	Expenses Subtotal 3 - add all (E)						

EXPENSES GRAND TOTAL (Subtotals 1 + 2 + 3)

\$170,358.00

** To indicate the one or many Funding Source(s) that will pay for the expenses, use their respective number as you listed under Revenues (SPF or other).

^{*} If position hosted and managed under a McGill Department or Unit, consult with their HR staff or supervisors for the applicable salary rates. If position not hosted and managed under a McGill Department or Unit, see the SPF Guide to Budgeting for the Hourly Wages applicable to hiring under the SPF.

APPENDIX - C

Clarification of the SPF LEEDing Change Project vs. the LEEDing Operations and Maintenance Project

Under the LEEDing Change project, all major renovations and new construction projects are to be certified LEED BD+C or ID+C Silver level or higher. Both LEED BD+C and LEED ID+C are one-off certifications that look at the environmental impact of the design and construction of a project. The certification is awarded following the completion of the construction project. There is no subsequent evaluation of building performance or follow-up to ensure the elements included in the original construction remain operational. Additionally, neither LEED BD+C nor LEED ID+C cover any of the sustainability related aspects of future operations of a building, such as ongoing procurement policies, cleaning practices and grounds maintenance.

Under the LEEDing Operations and Maintenance project, the LEED O + M certification will be used for the evaluation of the sustainability of operations and maintenance activities of a building on an ongoing basis. This certification is specifically designed to cover all of the elements of a building's sustainable performance where LEED BD+C and LEED ID+C leave off. LEED O+M is an ongoing certification for which buildings must reapply at least once every 5 years. As such, the adoption of LEED O+M on top of LEED BD+C and LEED ID+C certification ensures the application of sustainable building practices over the course of a building's life and throughout all of McGill's FMAS departments.