



Buying a Better Future

Insights from a Sustainable
IT Procurement Project

November 2021



Green
Economy
Canada



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Summary

Habitual purchasing practices represent the single largest barrier to realizing a more sustainable industrial economy. Unless we innovate the way we buy and what we buy, we will continue to reproduce the social, environmental, and economic impacts that we experience in our industrial economy today.

SAM J. HUMMEL

Former Executive Director

Sustainable Purchasing Leadership Council (SPLC)

With the ever-growing social and environmental challenges we face, organizations need to revisit their business models and innovate to build more resilient and sustainable supply chains. With their enormous buying power, Canadian public sector organizations can play a unique role in accelerating climate action to drive the needed market transformation towards a decarbonized, circular economy - reducing waste, eliminating inequalities, tackling the climate emergency, and addressing biodiversity loss. Yet in today's linear economy, buyers prioritize the lowest price on goods and services while limiting or omitting sustainability criteria in bid documents. Suppliers respond by providing products that are typically less repairable or recyclable, are made with cheaper or unsustainable materials, and have shorter lifespans to be able to deliver on the lowest price.

To leverage the procurement power of public sector organizations to drive progress towards a sustainable future, Green Economy Canada led a pilot project supported by HP Canada focused on identifying and improving sustainable IT procurement practices. The project helped participants assess their current sustainable IT procurement practices, and provided them with education to help embed sustainability criteria into bid documents. It also helped them apply the concept of Total Cost of Ownership (TCO) to get the best value for money. The pilot was conducted over the course of 18 months (from April 2020 to October 2021) and consisted of eight virtual workshops.

In signing up and allocating resources to this effort, participants demonstrated an inspiring interest in evaluating and developing sustainable procurement practices at their organizations. Many had multiple staff across departments engaged throughout the project, and we learned as much from participants as they did from the project. Despite this, participants cited several key barriers to moving sustainable procurement efforts forward, including lack of knowledge, lack of time / capacity, a lack of senior leader support and lack of clear internal mandates around sustainable procurement. They also cited concerns around sole sourcing by including sustainability criteria that they assumed most vendors could not meet.

By leaning on Green Economy Canada's proven approach of combining a stepwise process with tools, technical experts, 1:1 support and peer-based learning, our pilot demonstrated how public sector organizations can begin to overcome the knowledge, capacity, vendor engagement, and internal support barriers to embedding sustainable procurement practices. This document outlines our learnings so that other organizations and third parties can apply the insights from this pilot to help advance the adoption of sustainable procurement practices and accelerate our transition to a low-carbon, circular economy.

About Green Economy Canada



Green Economy Canada is a national non-profit accelerating Canada's transition to a vibrant and inclusive net-zero future by engaging businesses and organizations in communities across the country. Through our growing network of Green Economy Hubs and businesses, we're making business better, together.

Project Partners

Supporting Partner

Thank you to **HP Canada** for providing financial support and technical guidance for this project.



HP Canada

HP creates technology that makes life better for everyone, everywhere. Through our product and service portfolio of personal systems, printers and 3D printing solutions, we engineer experiences that amaze. HP delivers technology in the service of humanity.

Consulting Partners

Thank you to the following industry leaders for providing sustainable procurement expertise to develop pilot content and tools.



Sustainability Advantage

Sustainability Advantage is run by Bob Willard, a leading expert on quantifying and selling the business value of corporate sustainability strategies.



Reeve Consulting

Reeve Consulting is a well-respected sustainable procurement consultant that works with the public and private sector to address social and environmental risks in supply chains.



Shift + Build

Shift + Build is an experienced consultant focused on helping organizations advance social and environmental impact in a manner that creates economic value.

Participants



Introduction

With the ever-growing social and environmental challenges we face, organizations need to revisit their business models and innovate to build more resilient and sustainable supply chains. According to a [comprehensive environmental study](#) undertaken by the United Nations, extractive industries are responsible for half of the world's carbon emissions and more than 80% of biodiversity loss. Our linear economy based on take, make, use, and discard is not sustainable. The transition to a [circular economy](#), based on reduce, reuse, repair, repurpose, remanufacture and recycle is crucial to securing a prosperous and sustainable future for generations to come.

The criteria used by organizational procurement teams to select goods and services and decide with whom to do business can be a powerful lever to shift us towards a circular economy. In particular, with its enormous buying power, the Canadian public sector has tremendous potential to influence greenhouse gas (GHG) reductions and sustainability across supply chains.

Purchases made by Canadian public sector organizations account for [13.3%](#) (~\$200B CAD) of Canada's GDP, yet the vast majority of Requests for Proposals (RFPs) put forth do not consider sustainability as a key factor in procurement decisions as shown through a study conducted by [Da Ponte, Foley & Cho \(2020\)](#). Their analysis revealed that 22% of public sector RFPs over \$1M contained no mention of sustainability criteria whatsoever, and no public sector RFPs integrated sustainability criteria in the RFP evaluation with a weighting of greater than 10%. Those that included sustainability criteria in the evaluation of a bid lacked clear language on how those criteria would be validated.

To support and engage public sector organizations in leveraging the power of procurement to drive towards a circular economy, Green Economy Canada led a pilot project supported by HP Canada that focused on advancing sustainable IT procurement. This project was designed to address the following needs with ten broader public sector (BPS) participants:

- » Understanding the social and environmental impacts connected to IT procurement and use;
- » Establishing goals and developing processes that support the integration of sustainability criteria within the procurement process;
- » Meaningfully incorporating sustainability in the evaluation of public sector RFPs;
- » Meaningfully evaluating the best value of goods and services (instead of just the initial price) through the concept of Total Cost of Ownership (TCO).

The International Organization for Standardization (ISO) defines [sustainable procurement](#) as “procurement that has the most positive environmental, social and economic impacts possible across the entire life cycle and that strives to minimize adverse impacts.” We used a variation of this definition from Bob Willard as the basis for our project to make the concept more tangible for participants:

Sustainable procurement ensures that buyers obtain the best value for money when purchasing the most sustainable services and goods, from the most sustainable suppliers, in support of the organization's stated purpose and strategic goals.



BOB WILLARD
Founder & Chief Sustainability Champion
Sustainability Advantage

By using Green Economy Canada's proven approach of combining tools, resources, access to technical experts, and peer-based learning with a guided, action-oriented approach, our pilot was effective in helping public sector organizations overcome the knowledge, capacity, and internal support barriers to embedding sustainable procurement practices. While this pilot focused on sustainable IT procurement, the learnings are applicable to other commodities and other purchase categories. We trust other organizations and third parties will apply the insights from this pilot to help advance the adoption of sustainable procurement practices broadly.

Pilot Methodology

Pilot Scope

The pilot spanned 18-months with ten BPS organizations across Canada who participated in all or only some of the phases. As a first step, all participants were asked to complete the Sustainable IT Self-Assessment (see [Assessing Sustainable IT Procurement Practices](#) below) to evaluate their baseline sustainable procurement performance. The aggregated results were shared back with participants to highlight areas of strength and opportunities for improvement relative to their peers, as well as to understand trends across all participants. The results of the self-assessment informed participants about important sustainable IT standards and measures to begin evaluating.

To support clear signaling that sustainability was valued in the marketplace, the pilot focused on two important sustainable procurement aspects, and was conducted in two phases:



Impacting the RFX process through the meaningful inclusion of sustainability criteria. RFX includes Request for Proposal (RFP), Request for Information (RFI), Request for Quote (RFQ), and Request for Bid (RFB)).



Determining the best value for money through applying the concept of Total Cost of Ownership (TCO).

Why Participants Wanted to Participate



Learning from a cohort of peers



Developing sustainable IT procurement knowledge and experience



Influencing internal stakeholders and processes to adopt sustainable procurement



Impacting a significant area of spending (Information Technology) at their organization

Figure 1: Pilot Workshops and Resources



Workshop #1
Assessing Sustainable IT Procurement Practices



Workshop #2
Introduction to the Circular Economy



Workshop #3
Developing an Action Plan



Workshop #4
Incorporating Sustainable IT Criteria in RFXs



Workshop #5
Introduction to TCO & Stakeholder Engagement



Workshop #6
Calculating TCO



Workshop #7
TCO Ask Me Anything



Workshop #8
Building an Ideal Sustainable Procurement Approach

Sample Resources:

- » **Sustainable IT Procurement [Self-Assessment Tool](#) and [User Guide](#):**
Allowed participants to assess their sustainable IT procurement performance.
- » **[RFX Guide](#):**
Provided specific guidance on criteria to include in bid documents to evaluate the sustainability performance of IT vendors and their services/products.

Along with their peers and experts in the field, participants attended a variety of workshops (**Figure 1**) to build their knowledge, and were provided with manageable steps to begin embedding sustainable practices in their organization. This included developing policies to support sustainable procurement, and building the necessary internal organizational relationships to be successful. The workshops provided an opportunity for participants to discuss successes and challenges, ask questions of experts and build connections with peers working on advancing sustainable procurement. Participants were supported to make progress outside of workshops through one-on-one check-ins and plug and play templates and resources.

To support participants in getting familiar with TCO and how to apply it to evaluate different products or services, a TCO calculation tool was adapted for IT from the freely available [Sustainable Procurement Toolkit](#) developed by Bob Willard.

Surveys

Participants were surveyed regularly throughout the pilot to capture their experiences in real-time and a more in-depth survey was conducted at the conclusion of major phases of the pilot. The responses collected from these surveys, the self-assessment, and 1:1 meetings inform this white paper.

Assessing Sustainable IT Procurement Practices

A [self-assessment tool](#) was developed to provide a baseline for the current level of knowledge and existing sustainable IT procurement practices among participants. The tool highlighted what best practices look like and was designed to be quick and easy to use. The tool consisted of seven scored sustainable IT procurement categories:

 Packaging

 Product life cycle

 Ink & toner

 Total Cost of Ownership

 Energy use

 Ecolabels: EnergySTAR and EPEAT

 Paper

Each category was evaluated to five benchmark levels. Points were assigned to each benchmark level and were totaled at the end of the self-assessment to get a score out of 35. Scores were categorized as *Growing Awareness*, *Starting Response*, *Emerging Action*, *Standardizing Practice* and *Leading Innovation*. The final score corresponded with an overall benchmark level (**Figure 2**) for sustainable IT procurement practices.

The Self Assessment tool helped us realize where we are and what we can do to improve our sustainable IT procurement standings.

Figure 2: Self-Assessment Tool Overall Benchmark Levels

The Sustainable IT Procurement Self-Assessment Tool summed up performance across seven categories to provide an overall score that corresponded with one of these benchmark levels.

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Leading Innovation

- » Sustainable procurement activities are mandatory and followed across all significant areas of operation.
- » Sustainable procurement goals are communicated throughout the organization.
- » Sustainable procurement activities are highly sophisticated and considered the best available.
- » Sustainable procurement include objectives, KPIs, targets and incentives that are tied to long-term business strategy and are tracked, measured, and publicly reported.
- » Controls exist to ensure compliance and reward adoption of policies.
- » Senior management understands, supports and signs-off on sustainable procurement policies and procedures.
- » Vendor engagement exhibits open and transparent communication with two-way dialogue to find the best outcomes that support organizational sustainability goals.

4

Standardizing Practice

- » Sustainable procurement options in policies and guidelines are mandatory across some aspects of operations.
- » Procurement policies include objectives, KPIs, targets and incentives that link to the overall sustainability goals of the organization.
- » Sustainable procurement goals are communicated throughout the organization.
- » Tracking occurs for some data but it is not managed or reported.
- » Some controls exist to ensure or reward adoption of policies.
- » Senior management understands and supports sustainable procurement policies and procedures.
- » Vendor engagement and management begins to be formalized.

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Emerging Action

- » Sustainable procurement options in policies and guidelines are optional.
- » Procurement policies include objectives and KPIs that both link to the organization's overall sustainability goals.
- » No controls exist to ensure or reward adoption of policies.
- » Vendor engagement begins to occur.

2

Starting Response

- » Sustainable procurement policies are planned and / or beginning to be developed.
- » Many individuals demonstrate basic awareness of sustainable procurement options.
- » Occasional sustainable procurement initiatives occur across multiple departments without structured or systematic adoption.

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Growing Awareness

- » Some individuals demonstrate basic awareness of sustainable procurement options that exist in each assessment category.
- » Occasional or one-off sustainable procurement initiatives occur across one or more departments.

Results

Sustainable IT Procurement Baseline Results

The average score of the self-assessment was 14 out of a possible 35 points, which corresponded to the *Starting Response* overall benchmark level. The results showed that participants had some awareness of sustainable procurement within their organizations, and some actions were taken or planned. However, a more structured approach or systemic adoption of sustainable IT procurement practices was not yet in place. Significant opportunities existed to better leverage the power of procurement to drive the transition to a low carbon and circular economy. Results across each self-assessment category are discussed below.



Packaging

Packaging is important to ensure that products are protected from damage during transportation, but it has a short lifespan and consumes valuable natural resources to produce. It is important to ensure that products avoid excessive packaging, that packaging is made from sustainable resources like post-consumer recycled content or comes from certified sources, and that packaging can be recycled. Participant performance in the packaging category was low, with 50% of participants conducting no or very little assessment of packaging in purchasing decisions. Participants indicated packing requirements such as recyclability are at times built into the RFX, but none of the participants indicated that they worked directly with vendors or manufacturers to minimize packaging or ensure sustainable options.



Ink & Toner

Ink and toner cartridges are made from plastics and have a relatively short lifespan. Virgin plastic production is GHG emissions-intensive and thus products made from post-consumer plastics that can also be recycled at the end of their life are preferred. Printer cartridges may contain chemicals that can impact Indoor Air Quality (IAQ), and so understanding the contents of what is being purchased is important for the health of employees. Encouragingly, 67% of participants used an ink & toner take back and recycling program, and tried to procure ink and toner cartridges that claimed to contain recycled content and support IAQ standards. However, opportunities exist for participants to require manufacturers to provide transparency and proof around these criteria. Examples include requesting the Safety Data Sheet (SDS) and proof of testing to IAQ standards, as provided by EPEAT certification for printers, and requiring plastic cartridges to contain certified recycled content.



Energy Use

Purchasing low-energy using products or services are an important aspect of sustainable procurement. GHG emissions associated with the production, distribution, use, and disposal of a product can be significant, especially when considered in aggregate across all products made and consumed. Performance in the energy category was low and remains a low-hanging fruit opportunity to improve procurement practices. 67% of participants did not track the energy consumption of PCs and printers or engage vendors to understand the associated GHG emissions of a product. They also did not ask vendors about their overall GHG emissions disclosure or reduction practices, such as disclosing to the Carbon Disclosure Project (CDP), having [science-based targets](#) for carbon reduction, or working to reduce their environmental impacts through credible third-party programs like those run by local Hubs in Green Economy Canada's network. Participants indicated it was difficult to measure energy use and the associated greenhouse gas emissions related to using IT products at their organization and were not aware of how to get this information from suppliers, underscoring the importance of vendor engagement.



Paper

Sustainably procuring print paper is critical to managing costs, reducing unnecessary waste, and managing natural resources responsibly. 67% of participants had started to tackle some actions in the paper category. 33% had already taken action on paper conservation through the use of duplex printing or secure pull printing approaches, and a preference for sustainably certified or recycled paper. No participants had yet standardized these practices across their organization.



Product Life Cycle

The ability to extend the life of products and minimize waste to landfill at the end of product life are important considerations in sustainable procurement. 67% of participants were generally working to extend the first life of IT assets, which was encouraging to see. However, the notion of “circular IT” where IT products are maintained within a reuse and repair system for as long as possible was not well understood or embedded in their approach. Opportunities are present for participants to further improve the life of IT products by buying for repairability, buying upgradable equipment, ensuring the equipment is given a second life, and purchasing Products as a Service where possible. There were also opportunities around generally educating critical internal stakeholders like IT, procurement and user departments in these areas.



Total Cost of Ownership

TCO enables buyers to overcome the trap of purchasing with only the lowest initial cost in mind. It considers the true costs across the lifecycle of a product and allows buyers to evaluate these costs across different product options fairly and accurately to receive the best value for money. Participants were split in their knowledge and application of TCO within their organization. 45% of participants reported that they only considered upfront and basic supply costs, while 36% felt they had a more advanced level of knowledge and integration of TCO, considering warranties and Products as a Service options. This was especially true for print device evaluation.



Ecolabels: EnergySTAR and EPEAT

Leveraging third-party sustainability certifications is an important component of sustainable procurement and should be considered as a mandatory minimum for IT purchasing. Understanding the value of reputable ecolabels such as EPEAT and EnergySTAR can save the procurer time in the product evaluation stage of a bid by ensuring that vendors are abiding by credible third-party standards for sustainability. Self-assessment results and anecdotal feedback indicated that ecolabels like EPEAT were not well known and were being used as procurement criteria by only 18% of pilot participants. Participants seemed to have a better awareness of EnergySTAR, where 42% of participants stated that they prefer EnergySTAR rated equipment when possible and set IT assets to low energy use settings. Opportunities exist for participants to mandate requirements around EnergySTAR and EPEAT for products purchased through sustainable procurement policies (N.B. EnergySTAR is a requirement under the EPEAT standard).

Through the course of the pilot, participants learned more about each of these seven categories and associated concepts. They also explored how to work with different departments and their vendors to begin embedding these sustainable IT procurement practices. Our pilot participants were motivated to make improvements, and our pilot results showed that with some education, consistent 1:1 support and clear guidance to help integrate these practices into organizational processes and mandates, progress could be made. Participants were able to gain stakeholder buy-in for sustainable procurement, directly influence RFX to signal the market towards sustainability, and / or begin to influence centralized purchasing bodies to adopt sustainable procurement practices.

Case studies of five participants are featured in this white paper to provide a sense of actions pursued by organizations, and some of the foundations built to support their continued efforts to advance sustainable procurement goals.

Overall Pilot Impacts on Participants



Increased conversation and collaboration across departments



Built their knowledge of what sustainable IT procurement practices look like, and how to calculate and apply TCO methodology



Better equipped participants to have conversations internally with stakeholders and externally with vendors



Better equipped participants to implement sustainable procurement actions including TCO



Kick-started or provided additional internal momentum for participants to advance sustainable procurement

Case Study

The City of Peterborough Building Internal Buy-In



About

Peterborough is a prosperous community, distinctive in its natural beauty, cultural heritage, and a strong sense of community. As a leader in environmental sustainability, growth in Peterborough uses infrastructure and land efficiently, promotes healthy lifestyles, and incorporates green initiatives.



Greatest Success

Developing cross-departmental connections to lay the foundation for systemic changes in technology procurement and for future sustainability projects.



Project Description

The City of Peterborough worked on developing interdepartmental relationships to advance sustainable procurement. The Self-Assessment Tool enabled the City to objectively assess and communicate their sustainable IT procurement performance, further educating and gaining buy-in from IT and Procurement departments. With traction in place, the City is reviewing its printing systems for sustainability gains, and its internal policies to ensure sustainable procurement is included. The City also intends to implement sustainability criteria in RFX language for future procurements.

Participating in the pilot was important for us because the municipality is committed to incorporating sustainability within its operations, with Procurement being a central department to realize this goal.



JAMES BYRNE
Climate Change Coordinator
The City of Peterborough

Case Study

The City of Ottawa

Expanding Our Sustainability Toolkit

**About**

The City of Ottawa has developed a Climate Change Master Plan, an overarching framework to reduce greenhouse gas (GHG) emissions and respond to the current and future effects of climate change. The plan aims to take unprecedented collective action to transition Ottawa into a clean, renewable and resilient city by 2050.

**Greatest Success**

Building collaborative relationships between IT and Procurement culminating in the creation of new tools that will streamline the integration of sustainability factors into the City of Ottawa's IT procurements.

**Project Description**

The City of Ottawa's participation in the pilot promoted increased collaboration between Information Technology Services and Supply Services. This collaboration led to the development of a number of tools which will be incorporated into the planning and IT procurement process to improve sustainability. A resource was developed for sustainability evaluation criteria to consider when creating procurement documents. Vendor engagement resources were developed to support City staff to conduct market research when incorporating sustainability considerations into new projects. Lastly, a Total Cost of Ownership calculator will be piloted for future use.

Participating in this pilot brought IT and Procurement together to collaborate in new ways. By leveraging both areas of expertise, we developed project planning and procurement tools that will help us make more sustainable purchases and contribute to a more sustainable City.



JENNIFER McCABE
Business Analyst
The City of Ottawa

Case Study

Waterloo Catholic District School Board Engaging Centralized Purchasers



**Waterloo Catholic
District School Board**
Quality, Inclusive, Faith Based Education



About

As disciples of Christ, we educate and nurture hope in all learners to realize their full potential to transform God's world. Our vision statement reads "Our Catholic Schools: heart of the community — success for each, a place for all."



Greatest Success

Creating greater awareness internally about sustainable procurement and what is required to integrate it.



Project Description

The Waterloo Region Catholic District School Board (WCDSB) identified that their ability to implement sustainable procurement depended on the buy-in of a centralized purchasing body. Incorporating sustainability criteria into this purchaser's supplier evaluation could have significant impacts for all school boards in Ontario. The WCDSB leveraged sustainable procurement experts through the pilot to address the Ontario Association of School Business Officials (OASBO) Supply Chain Management Committee (SCM) and raise awareness of the opportunities. The WCDSB plans to continue building on these initial conversations to advance sustainable procurement activities for the school board.

The pilot gave our Purchasing and IT team the tools to make informed and conscious buying decisions. Participating with peers and experts was invaluable and inspiring. We will continue to implement sustainable procurement strategies to mitigate the environmental and social impacts of the School Board.



ELENA WEBER-KRALJEVSKA
Energy Conservation Officer
Waterloo Catholic District School Board

Case Study

The University of Waterloo

Obtaining the Best Value for Money



About

The University's mission is to advance learning and knowledge through teaching, research, and scholarship, nationally and internationally, in an environment of free expression and inquiry. We embrace the opportunity to collaborate with and be elevated by a world-class peer group.



Greatest Success

Accelerating development of and building the needed buy-in to implement the University's Life Cycle Costing Guideline and calculator.



Project Description

The University of Waterloo built a Life Cycling Costing tool to support IT and sustainable infrastructure buying decisions. The tool incorporates costs across the lifespan of a given project and also accounts for the environmental costs of carbon. The tool will enable the University to make more holistic purchasing decisions by aligning their procurement activities with their broader sustainability goals. The University plans to pilot this tool in upcoming procurements to ensure they receive the best value for money.

This project helped us build a more structured way for integrating sustainability in our IT activities. We recognize the impact that sustainable procurement choices can have for a large organization like ours, and the project led to valuable opportunities that we are continuing to implement.



MATHEW THIJSSEN
 Director of Sustainability
 The University of Waterloo

Case Study

Edmonton Public Library

Impacting Bids for Market Transformation



About

EPL is the gathering place for people and ideas, enabling a lifetime of learning, engagement, and possibility for every Edmontonian. As Edmonton's largest lender of information and entertainment, our greatest passion is creating connections to help grow, inspire and change.



Greatest Success

Incorporating sustainability criteria with a total scored weighting of 10% into a three-year RFP for multifunction print devices. This procurement will impact EPL's 21 branches in Edmonton. The criteria EPL used in their RFP was based on the standardized RFX criteria provided by Green Economy Canada.



Project Description

Information Technology purchases are one of the largest procurement areas at EPL. EPL reviewed upcoming IT RFX tenders to target, and identified sustainability criteria to incorporate with senior leader approval. They also initiated a dialogue around sustainability objectives with existing IT vendors. This was the first time EPL had incorporated a sustainability evaluation of IT vendors and products as part of its procurement process. Adopting sustainable procurement will support EPL's bottom line and help to advance Edmonton's climate goals.

Engaging in sustainable procurement allows us to maintain the high standards expected of us and create value socially, environmentally, and financially within Edmonton, and by extension, the province of Alberta. We are glad to have taken part in the sessions.



BREE CHELLE
Senior Buyer
Edmonton Public Library

Barriers to Advancing Sustainable Procurement

Participants in our pilot were keen and engaged in learning how to advance sustainable IT procurement practices. Despite their strong motivations, our pilot helped surface the numerous barriers participants faced to developing and implementing a sustainable procurement effort within their organizations before and during the project.



Lack of Time



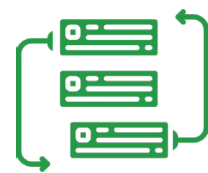
Lack of knowledge



Lack of Leadership Support



Higher Perceived Costs of Products



Shifting Internal Priorities



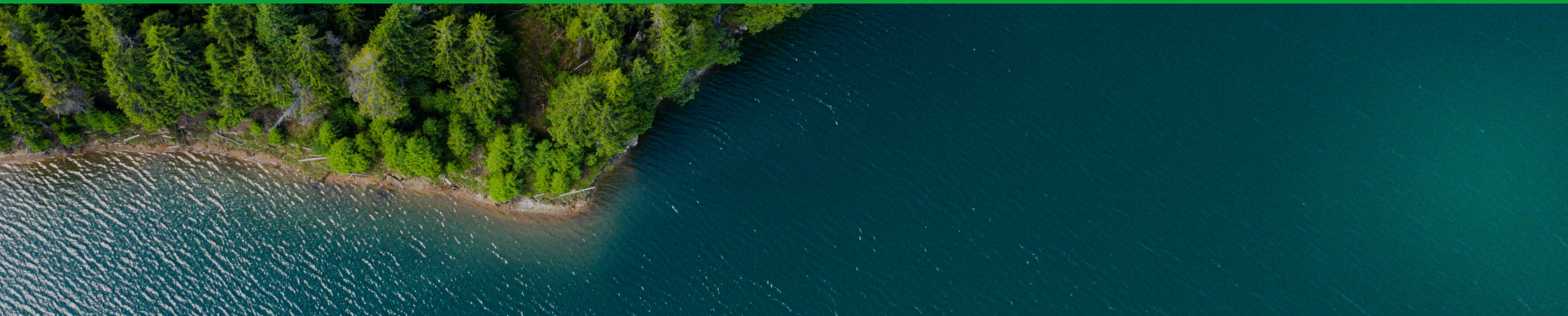
Limiting the Vendor Pool

The top two cited barriers to engaging in this effort were a lack of time and knowledge to research, design, communicate and implement a sustainable procurement approach and a lack of internal policies or procedures that support sustainable procurement. Participants also cited lack of leadership support and the perceived higher upfront costs of sustainable products and services as significant barriers. They discussed rapidly shifting internal priorities as a challenge in developing or maintaining momentum, with many experiencing significant organizational reprioritization due to the pandemic. They were also concerned about the potential for sole sourcing by introducing sustainability criteria too strict for the market to currently meet.

With our department normally running lean, it was hard to set aside dedicated time to develop a plan and process for sustainable IT procurement projects.

Attaining senior management buy-in can be difficult but it is very important to building lasting corporate momentum for sustainable procurement.

Collaborating with others around sustainable procurement is a challenge because of shifting and competing priorities - this work requires input from multiple departments.



It is not simply the organization's sustainability staff that needed greater knowledge to be effective in sustainable IT procurement — the education and engagement of Procurement and IT staff were also needed. This cross-functional approach can be challenging as procurement and IT staff are often taxed with other priorities.

These barriers and our own pilot experience suggest a knowledge and human resource gap for public sector organizations to advance sustainable IT procurement. The gap was evident through the self-assessment results where the majority of scores indicated some starting awareness and action but a lack of integration of sustainable procurement practices across all participants. Our results also indicated that it was not simply the organization's sustainability staff that needed greater knowledge to be effective in sustainable IT procurement, but that the education and engagement of procurement and IT staff were also needed. This cross-functional approach can be challenging as procurement and IT staff are often taxed with other priorities. Changing or adding tasks can be especially difficult without organizational mandates or third-party intervention, like this project.

The knowledge, time / capacity, and internal support barriers noted by participants are seen consistently in our broader work at Green Economy Canada to help organizations build sustainability into their operations. Our network has found it highly effective to pair sustainability education and resources with bringing peers and experts together, creating consistent touchpoints, and providing an actionable pathway to achieve business goals. These methods were applied in the design of this pilot and also proved effective within the relatively short time-frame participants were involved.

For practitioners in this space — be it staff within organizations looking to advance sustainable procurement, or third-parties supporting organizations in this journey — our pilot findings show that like for so many sustainability challenges, it is crucial to ensure that both the human and technical factors are addressed to gain traction on sustainable procurement. It is important to find ways to foster dialogue and connection across departments and with peers, and pair that with practical step-wise guidance. Third parties can support organizations effectively across these dimensions as they provide accountability and motivation to help organizations achieve their sustainable procurement goals.

Success Factors & Key Insights

Specific learnings from this pilot to advance sustainable procurement are discussed below.



The Importance of Senior Leadership Support

Participants unanimously indicated that senior leadership support and sustainability policies or goals were critical to the success of any sustainable IT procurement effort. Senior leadership support impacts the degree to which practices can be ingrained within existing processes and the degree to which each department and individual at the organization prioritizes sustainable procurement principles. It also determines how ambitious organizations can be in their sustainable procurement goals, the training and resources available to implement efforts, and the degree to which an organization tracks and reports results.



The Importance of Taking a Guided Approach

Participants noted consistently that they highly valued the tools and turnkey resources they received. Tools like the Self-Assessment Tool provided a structured and objective way to navigate interdepartmental dialogue around sustainable procurement practices. Other resources allowed participants to break down more significant components like action planning or embedding sustainability criteria into RFXs into manageable pieces, allowing them to focus on one element at a time.

The ability to connect with peers and experts enabled participants to confidently engage with the concepts of action planning, TCO, and engaging staff and senior leaders to overcome traditional barriers to advancing sustainable procurement. It also enabled them to feel confident using the available tools and resources. The consistent touchpoints with third parties and peers through this pilot helped participants learn from each other's experiences, access a support network, and stay accountable to moving the work forward.

Receiving senior management buy-in is important to ensure lasting corporate momentum, and creating connections between diverse departments is essential to the goal of embedding sustainable thinking into departmental budgets and project planning.

These results underscore the value of an ecosystem approach. Efforts to enhance awareness and increase opportunities for organizations to join working groups or communities of practice can help provide external grounding for moving internal sustainability efforts forward. However, having education alone is often not enough as staff are short on time to implement learnings from workshops or training sessions if advancing sustainable procurement is not a core part of their job. Pairing education with clear next steps and direct support to help implement actions is important to keep the work top of mind and manageable. This could be done with the continued support of a third-party, or through the creation of a dedicated role within each organization to move sustainable procurement practices forward.

Efforts to enhance awareness and increase opportunities for organizations to join working groups or communities of practice can help provide external grounding for moving internal sustainability efforts forward. Pairing education with clear next steps and direct support to help implement actions is important to keep the work top of mind and manageable.



The Importance of Leveraging Ecolabels

While the self-assessment results identified many opportunities for improvement in sustainable IT procurement practices, leveraging ecolabels like EPEAT and EnergySTAR when procuring IT products was one action that could have a significant impact on influencing the sustainability of vendors and products. With participants citing a lack of time and knowledge as key barriers, leveraging ecolabels has the added benefit of providing procurers with verified and standardized sustainability criteria so they don't need to hold this knowledge themselves.

Ecolabels can help improve the performance of vendors and products across multiple sustainable IT procurement categories, and so should be further explored by all public sector organizations as a minimum requirement when purchasing IT products.

EPEAT helps provide assurance that a wide variety of product and supplier attributes have been addressed, with the purchaser being able to select from three levels of performance: gold, silver or bronze. EnergyStar supports procurers in ensuring that IT equipment is within the top tier of energy performance in its product category and is a requirement of EPEAT. Ecolabels can help improve the performance of vendors and products across multiple sustainable IT procurement categories, and so should be further explored by all public sector organizations.



The Importance of Vendor Engagement

Another key barrier that emerged through this project were perceptions from participants of sole sourcing contracts by using sustainability criteria too strict for the market in their RFXs, thereby appearing to favour one vendor over others. Participants had not done vendor outreach to understand market readiness to meet the sustainability criteria to understand the extent to which sole sourcing concerns were founded.

To help address this challenge, our pilot provided participants with a market research guide on what to look for in researching vendors and how to have conversations with them. We also encouraged pilot participants who were wary about introducing certain more stringent sustainability criteria to include these as bonus points in RFXs versus penalizing those vendors that were not yet ready to meet the standards. The approach equips and supports the public sector to begin signaling that sustainable procurement is important, and begin engaging vendors to understand their readiness to meet the sustainability criteria, including existing efforts, future priorities and overall challenges. This discovery process is

important as it can provide the business case for vendors to invest more heavily into advancing their sustainability practices and knowing which areas are important to their customers.

The importance of vendor engagement came up during the TCO portion of the pilot as well. TCO calculations include several data points that can be challenging to acquire, especially when external suppliers need to be engaged to get the information. Regarding the latter, participants noted an important challenge in getting comparable data across suppliers for TCO calculations as suppliers had their own approach to calculating and providing data inputs for TCO.

Vendor engagement is important to understand their readiness to meet the sustainability criteria, including existing efforts, future priorities and overall challenges. This discovery process is important as it can provide the business case for vendors to invest more heavily into advancing their sustainability practices and knowing which areas are important to their customers.

This challenge was especially present when procuring managed print services where the services, length of contract terms, and the features on the devices vary from vendor to vendor. Some of this could be overcome by more clearly requesting the parameters for the data to ensure cost comparisons are evaluated consistently and fairly across bids. Reducing the burden on procurers to find and make sense of financial data provided by suppliers is critical to enabling the integration of TCO within organizations. Preparing vendors to understand what will be requested and why can help make relevant data collection feasible.

We have seen how valuable this preparation work can be at Green Economy Canada in working with businesses to get data around other aspects of environmental performance each year. Taking time to help businesses understand what data is needed, where this data can be typically found, what format the

data needs to be provided in, and ensuring everyone is using common language makes a significant difference to the quality of data we receive.

We touched on vendor engagement preliminarily in our pilot but would like to do more work in understanding how best to support broader public sector organizations to effectively have these conversations and understand overall market readiness to meet sustainable IT procurement criteria. Public sector organizations need to balance the tension of limiting the vendor pool with their power in setting standards that pull the market towards ever-improving sustainability. Supplier engagement was also noted by participants as being an essential success factor in their sustainable procurement initiatives, and a critical component of meeting their broader sustainability goals.



The Importance of Impacting RFX

Upon completing the pilot, participants reflected on the value of learning about and applying the TCO methodology to capture and quantify costs in detail across the lifespan of an IT service or product to ensure they were truly getting the best value for money. Participants also stated that the TCO phase of the pilot had supported the implementation of TCO to other procurement areas at their organization, scaling the impact of this work.

One surprising finding from our pilot was that while TCO was a highly useful concept in obtaining the best value for money, TCO by itself seemed limited in its ability to inform and guide sustainability-related IT purchasing decisions and alignment with broader sustainability goals.

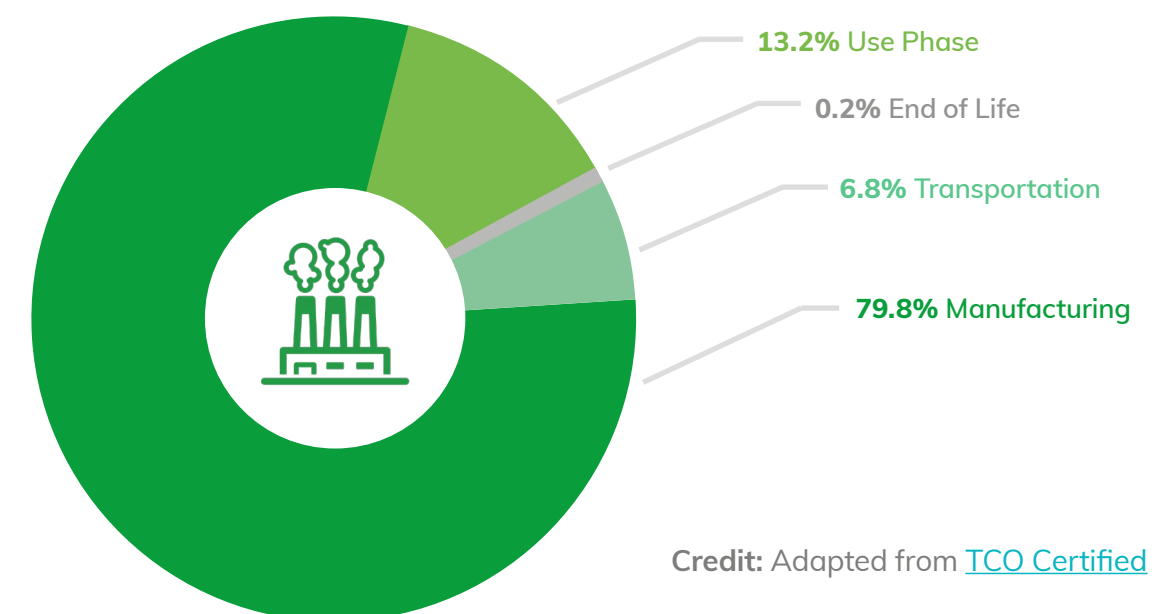
One benefit of employing TCO generally in procurement is that it supports determining the best value for money by factoring in environmental costs like energy use, which have a GHG emissions impact as well as financial impact. For example, procuring more energy-efficient capital equipment will result in both GHG reductions and cost savings on utility bills, which are important considerations alongside other factors like upfront costs, maintenance costs, and product lifespan when deciding which product to ultimately select.

For IT-related purchases, our pilot suggests that assessing the sustainability of a product or service is better done through the questions asked in the RFX than through criteria included in TCO. Overall, the buying power of public sector organizations has a tremendous ability to influence the extent to which manufacturers are measuring, managing and disclosing their sustainability impacts, and the RFX process needs to be better leveraged to drive change.

When it comes to IT, the energy efficiency of products has improved greatly, and the comparative GHG emissions associated with using one IT product over another is likely to be similar. The main environmental impact of technology products is from the manufacturing phase (**Figure 3**). Product carbon footprint data is available through EPEAT. However due to the number of components in IT products, coupled with complex supply chains, the specificity of the data and broad standard deviations of lifecycle calculations do not allow for meaningful comparisons between vendors or products. This is a rapidly evolving area of sustainability practice and a good example of the cross industry collaboration needed to drive a low-carbon economy.

Figure 3

Emissions by life cycle phase, notebooks [%]



For IT-related purchases, our pilot suggests that assessing the sustainability of a product or service is better done through the questions asked in the RFX rather than through criteria included in TCO. These questions involve assessing vendor and product attributes including meeting certifications like EPEAT, and through assigning an appropriate weight to those questions so that the environmental and social impacts can be valued materially alongside the financial considerations from TCO. For organizations starting out, we would recommend weighting the sustainability components of a bid between [10% and 20%](#) and that the weighting be incrementally increased so that social and environmental considerations are meaningfully valued and rewarded alongside financial ones to affect deep market transformation. Through our own conversations with experts in the field, leading organizations in Europe are currently weighting sustainability criteria within the range of 40% - 50% in RFXs. Overall, the buying power of public sector organizations has a tremendous ability to influence the extent to which manufacturers are measuring, managing and disclosing their sustainability impacts, and the RFX process needs to be better leveraged to drive change.

Conclusions

Our ten pilot participants demonstrated that it is possible to catalyze action on sustainable procurement with the appropriate conditions and resources. Using the Self-Assessment Tool was an important first step in understanding their current performance and where sustainable IT procurement opportunities existed. It formed the foundation for education, interdepartmental engagement, and action. By working through a defined process (**Figure 4**) with peers and experts, and being supported along the way with workshops, 1:1 support and practical resources, participants were able to make meaningful progress on their journey to sustainable IT procurement.

Figure 4: Steps to Advance Sustainable IT Procurement Practices

- 1** Get senior leader support and connect sustainable procurement to your organization's broader sustainability goals.
- 2** Assemble a cross-functional team including Sustainability, IT, and Procurement representatives.
- 3** Take the [Self-Assessment](#) to evaluate your starting point and identify opportunities for improvement.
- 4** Consult the [RFX Guide](#) to understand what sustainability criteria to potentially include in bids. Consult external resources, peers, and third-parties to build your education and awareness of sustainable procurement practices including TCO.
- 5** Identify upcoming bids that could be targeted to incorporate sustainability criteria and a TCO approach, and understand the approval process to make modifications.
- 6** Engage with vendors to signal requirements will be shifting. Understand their readiness to meet these new sustainability standards.
- 7** Modify your chosen RFXs to incorporate new criteria, including ecolabels for IT products. Assign a weighting of at least 10% - 20% for sustainability criteria, increasing that weighting over time to drive meaningful market transformation.
- 8** Evaluate bid responses and identify adjustments for the future. Continue to work with vendors, train internal staff, implement policies, and modify your upcoming bids to ensure you are getting the best value for money while achieving your sustainability goals.

Participants planned to continue the work they started through our pilot. Key action areas include the following:

- » Forging new relationships between functional areas/departments;
- » Gaining employee support and influencing behaviour;
- » Educating other functional areas about determining the best value for money;
- » Piloting TCO on an upcoming procurement;
- » Incorporating scored sustainability criteria into the procurement process;
- » Obtaining buy-in and commitment at the most senior level.

Participants identified that the following supports would be valuable to help them continue to build momentum for their efforts:

- » Knowledge of what leading organizations are doing to advance sustainable procurement;
- » More education, training, and resources for key stakeholders within their organizations that support sustainable procurement practices;
- » The availability of additional resources to enable sustainable procurement action;
- » Integration of sustainable procurement goals into their core operations.

More broadly speaking, being able to quantify the GHG reduction impacts of sustainable procurement, specifically on supply chain (Scope 3) emissions, could also help to build momentum for implementing sustainable procurement practices. This is especially true as municipalities look to take action on the climate emergencies they have declared, and the private sector looks to align with science-based GHG reduction targets, which require action on material Scope 3 sources. While connecting sustainable procurement to measurable GHG reductions was beyond the scope of this project, we did learn that more work is needed in this area to enable organizations to feasibly quantify the environmental benefits of taking action.

Ultimately, the work of creating and integrating sustainable procurement practices into organizational processes is complex, like many other sustainability challenges. It requires multi-stakeholder buy-in, supportive policies and mandates, an understanding of sustainability and procurement principles, and a framework that enables a clear and transparent evaluation of products, services, and suppliers. As such, sustainable procurement remains an untapped lever to help Canada transition to a vibrant, low-carbon, and circular economy. With greater access to knowledge, tools and one-on-one support, the ability of Canada's public sector to mobilize action towards a better future is within reach.



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