

CCES 2025 Session Summary

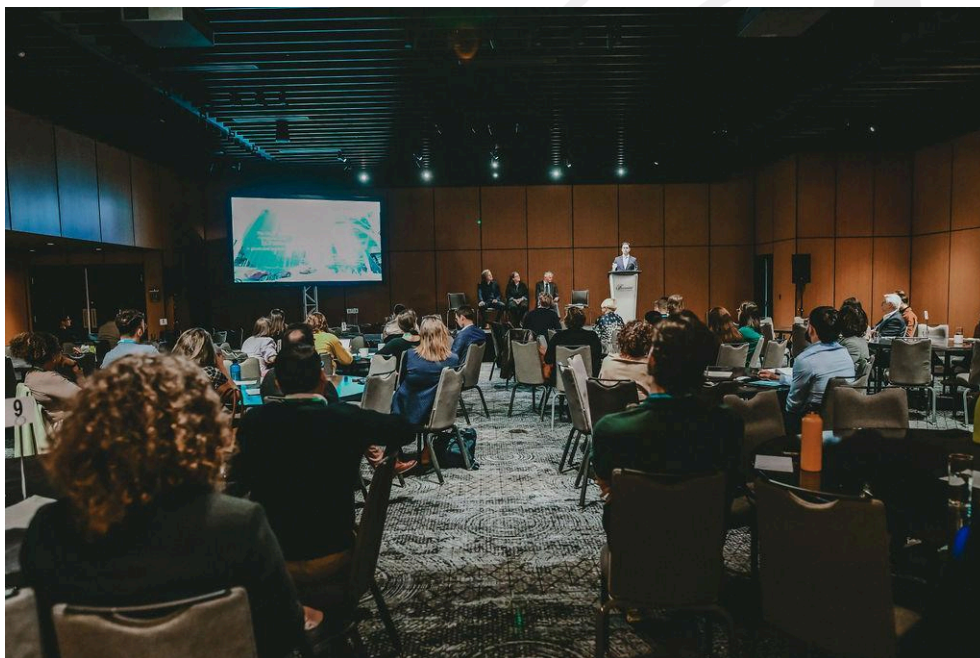
Creating Circular Demand: Using Procurement to Shape Circular Markets

This panel and workshop combination showcases the power of collaborative procurement to shift the market towards low carbon products and solutions. Using Construction and ICT as a high impact categories, panelists and workshop discussions will focus on circular strategies and practical tools, applicable across purchasing categories, that are delivering low carbon, cost-effective circular solutions. The panel will spotlight examples from Canadian and Dutch practitioners highlighting their leading approaches and achievements on scope 3 emissions reduction, cost savings and fair supply chain practices. Workshop participants will choose 2 topics to dive deeper into circular procurement strategies and tools to accelerate buying circular solutions at their organizations.

Date / Location: Wednesday, April 16, 2025 / Montreal, Canada

Speakers:

- **Katie Motta**, Director, Circular Innovation Council
- **Jack Bolland**, Program Leader, City of Toronto
- **Johan Rodenhuis**, Strategic Sustainability Advisor IT, Netherlands Ministry of Economic Affairs
- **Mervyn Jones**, Senior Circular Economy Advisor, Netherlands Infrastructure and Water Management (moderator)
- **Stéphanie Leclerc**, Program Manager, Sustainable Procurement, Université McGill



SUMMARY

Speaker Presentations

Mervyn Jones, Netherlands Infrastructure and Water Management

The Dutch government was present at the CCES to share its national programme aimed at achieving a fully circular economy by 2050 while reducing the use of primary resources by 50%. Recognizing that this ambitious goal cannot be accomplished alone, the government has emphasized the necessity of international cooperation, especially in global value chains such as ICT, plastics, and textiles. Given the projected global population increase from 8.3 billion to 10 billion by 2050, demand for resources will rise while supply diminishes, making collaboration and circular thinking crucial.

By adopting a whole-life strategic approach across all procurement phases—pre-tender, tender, and post-tender—the Dutch government aims to unlock economic, environmental, and social benefits that exceed traditional linear purchasing methods. This approach fosters cost savings, carbon reduction, and social value creation, including local skills training and employment opportunities. A simple yet effective strategy is distilled into four key principles: buy less; buy better; use better; and use longer.

In practice, these principles are illustrated through sustainable ICT procurement, which, in the case of the Canadian government, is the fourth-largest carbon emitter. Reducing unnecessary purchases, such as limiting the use of dual monitors and work mobiles, helps lower emissions. Improving purchasing decisions, like opting for ultra-wide monitors over two separate ones, further reduces environmental impact. Extending the lifespan of devices, even with higher upfront costs, results in significant long-term savings. For instance, increasing a device's lifespan from three to six years saves approximately \$550,000 per 1,000 devices over six years, demonstrating how strategic procurement can drive both financial and environmental benefits.

Johan Rodenhuis, Netherlands Ministry of Economic Affairs

Johan Rodenhuis, a Strategic Sustainability Advisor IT for the Netherlands' Ministry of Economic Affairs, emphasizes the importance of a **circular economy** and the Netherlands' ambition to be a global leader in this transition. His role involves developing strategies, setting criteria for tenders, and fostering international collaboration, specifically focusing on **workspace-related hardware** (laptops, smartphones, tablets) and **telecommunications**.

Johan highlighted the Dutch government's commitment to leading in this area, asserting that if they don't take action, no one else will. Their strategy integrates **security, economic viability, and raw material management** to achieve a better **total cost of ownership**. They aim for **incremental innovations**, learning from other sectors, and collaborating with international partners to standardize strategies and tenders, providing clear direction for the market.

A key aspect of the Dutch approach is focusing on "**most sustainable performance**" rather than just purchasing products. This involves evaluating the business operations, products, services, and value chain of their partners. They employ an **inclusive transition model**, rewarding leading companies while providing opportunities for others to grow, accelerating progress across the entire market. This is

achieved through a **lifecycle costing methodology**, offering financial incentives for companies committed to long-term sustainability goals.

Johan provided examples of Dutch focus areas, including **energy efficiency** in data centers, **CO2 footprint analysis** through tenders, and a strong push towards **"as-a-service" models** to increase impact on the supply chain and promote a multi-lifecycle approach for products. Despite the common perception that such initiatives are difficult for governments, Johan concluded by quoting George Bernard Shaw, emphasizing that those who say it cannot be done should not hinder those who are doing it, advocating for real-world examples to drive change.

Stéphanie Leclerc, Université McGill

McGill University, a prominent academic and research institution in Montreal with roughly 40,000 students and 10,000 staff, spends between \$350 million and \$500 million annually on goods, services, and construction. Committed to sustainability, McGill has a **zero-waste strategy, carbon neutrality objectives**, and aims to be **nature positive**, prioritizing biodiversity on campus and within its supply chain.

For the past decade, McGill has pursued a two-pronged approach to **circularity**: sustainable material sourcing and asset management. Their sustainable material sourcing process involves **minimum standard requirements** for equipment performance and durability. They leverage Quebec's regulatory context to offer **preferential margins** in tenders for products with recycled content, low toxicity, or extended longevity, as well as for suppliers demonstrating strong social and environmental corporate performance. Quantification efforts have shown that extending equipment lifecycles, even by a year, significantly reduces Scope 3.1 emissions (those associated with purchasing goods and services). McGill also actively participates in industry initiatives and standards development, including involvement with EPT and NSF committees for Ecolabel standards.

In **asset lifecycle management**, McGill focuses on **tracking equipment** to facilitate internal and external reuse. This ensures that reusable equipment is not prematurely recycled, prioritizing internal redeployment and external refurbishment before disposal. They have established communication channels and logistics for these reuse loops and maintain contracts with local, certified, and audited refurbishers and recyclers. This comprehensive approach to asset optimization has created a blueprint for managing other assets, such as vehicles, furniture, appliances, and research equipment.

Jack Bolland, City of Toronto

Jack, from the City of Toronto's Environment, Climate and Forestry Division, outlined the city's ambitious mandate to achieve **net-zero emissions by 2040**. He acknowledged the "Mission Impossible" nature of this goal but emphasizes that the city's operations, representing only 3-5% of total emissions, aim to lead by example. The primary sources of emissions in Toronto as a community are buildings (58%), transportation (37%), and waste.

Jack highlighted the significant opportunity within **public material sourcing processes** to accelerate the transition to net zero. Toronto, as the fourth-largest and fastest-growing city in North America, spends \$3-4 billion annually on goods and services, with nearly 80% dedicated to construction materials for large-scale infrastructure projects (roads, bridges, community centers). This presents a "treasure trove" for leveraging existing expenditures to support next-generation clean technologies.

Despite the complexities of public procurement laws and international trade relations, Toronto is proactively aligning its material sourcing with its "Transform TO" net-zero strategy. Key initiatives include a **circular material sourcing framework**, policies for social procurement and supply chain diversity, and sustainable fleet policies. They are updating their environmental emissions policy and are part of the Cool Food Pledge to reduce carbon from food purchasing.

A major focus for Jack is on **new buildings and embodied carbon**. The Toronto Green Standard, the city's building code, mandates that all new buildings be net-zero by 2030. Initially focused on operational carbon (heating, hot water), the city now heavily emphasizes **embodied carbon** – the emissions associated with building materials and construction. Analysis revealed that a high-performance building built with traditional materials could take 40 years to offset its embodied carbon through operational savings compared to a low-efficiency building made with mass timber. To address this, Toronto has implemented an embodied carbon management tool, setting a cap on CO2 equivalent per square meter for new buildings that will progressively tighten.

Furthermore, Toronto has strategically changed its "go-to-market strategy" for procurement. Instead of attempting to directly mandate specific clean technology companies (which is difficult under procurement laws), they have modified their **technical specifications** for linear infrastructure (sidewalks, roads) to require **low-carbon concrete**. This approach has been met with enthusiasm by engineering and transportation staff, driving innovation within the marketplace for available concrete mixes.

Additional initiatives include a **carbon budget** for city divisions, integrating a "carbon lens" into capital and operating budget decisions, active participation in "Buyers for Climate Action" and "Mayors Public Procurement Coalition," and the relaunch of the **Green Market Accelerator Program** to incubate clean tech solutions using Toronto's infrastructure.



Audience Q&A

The question and answer session following the panel presentations addressed how public procurement can effectively balance security, circularity, total cost of ownership, and autonomy within tender processes. The speakers share insights and real-world examples of integrating sustainability into procurement, highlighting its positive impact on cost, efficiency, and social responsibility.

QUESTION 1 - How they balance security, high circularity, total cost of ownership, and autonomy within their tender exercises.

Johan explained that these themes are embedded through upfront criteria in their tenders, encompassing both factual requirements and award criteria. For security, they are implementing factory disclosures to gain transparency into tier one, two, and three suppliers, identifying potential risks and ensuring uncompromised hardware and software. This transparency, also crucial for circularity, allows them to track the origin of natural raw materials and the proportion of secondary materials in products. He noted that higher transparency in the supply chain benefits social responsibility by reducing the likelihood of human rights or ethical violations. Johan emphasized that companies prioritizing sustainability often also excel in security, creating a reinforcing cycle. This leads to longer-lasting, better-produced products with fewer security risks, ultimately lowering costs and improving total cost of ownership. From a broader circularity perspective, they use award criteria on certifications that independently audit both environmental and social performance.

In a follow-up question, Johan was asked if any analysis had been done to assess the success of this approach. He confirmed that they conducted an analysis of their strategies, designed in 2020-2021 to meet Dutch government goals of climate-neutral business operations by 2030 and 50% less raw materials in products by 2030. This analysis, which included an AI solution to evaluate performance based on public information, showed significant success. Objectively, he stated that their strategies achieved an "eight out of ten" success rate. They found that award criteria were conformed to by suppliers between 70% and 90% of the time, indicating market enthusiasm and the effectiveness of their unique criteria in contributing to these outcomes.

QUESTION 2 - The question posed to Stephanie from McGill University was **whether the Dutch government's successful integration of sustainability and circularity into procurement resonated with McGill's experiences.**

Stephanie affirmed that it absolutely does. She challenged the "myth" that sustainable procurement is more costly, noting a trend where companies meeting McGill's strictest requirements are often the most well-structured and offer better pricing. She further explained that in Quebec, sustainable procurement is now mandated for public bodies by the government, with the Environment Ministry and Treasury Board monitoring their performance based on the number of sustainability clauses in tenders and overall outcomes. This aligns with the Netherlands' experience, where a similar mandate for circular criteria in procurement led to achieving 100% circularity in four years, significantly ahead of their ten-year target. Stephanie emphasized that merely having "100% circularity criteria" isn't the goal; it's the actual impact and outcomes achieved that truly count.

QUESTION 3 - Stephanie shared key lessons from McGill University's circular economy initiatives, emphasizing the importance of "**wisdom on the ground**" from various departments to understand an organization's "metabolism" and material flows.

She highlighted two significant findings:

- **Addressing e-waste from "crappy computers"**: Technicians observed that poor quality computers led to excessive e-waste. This insight prompted McGill to implement **minimum standard requirements** for equipment, focusing on quality, performance, and sustainability to extend product lifespan and reduce waste.
- **Optimizing internal reuse**: An IT technician noticed newer computers being sent for recycling while older equipment was still in use in other departments. This revealed a lack of a consistent definition for what could be reused and an imbalance in funding and material throughput across different areas. To address this, McGill established **clear internal reuse criteria** and processes to connect departments, ensuring that equipment is redeployed internally if it meets these standards, preventing premature recycling.

These experiences underscore that understanding the practical realities and diverse needs within an organization is crucial for successfully integrating circularity into procurement and asset management.

QUESTION 4 - In response to whether linking procurement to the circular economy resonates with his experience, Jack from the City of Toronto affirmed its relevance, particularly concerning the **built environment**. He noted that this area is rapidly evolving.

Toronto is actively undertaking its first **deconstruction projects**, such as the one at Ossington and Dundas, where old buildings are being systematically salvaged for materials. Jack acknowledged that while the market mechanisms for this are emerging, the sector is still young, particularly regarding the built environment. Challenges remain in **quality control** and establishing a practical **marketplace** for salvaged goods.

Despite these hurdles, there's a growing recognition of the **value in the salvage market**. Jack conceded that a cost premium might still exist compared to using raw materials, largely due to the labor costs associated with deconstruction versus demolition. However, he emphasized that the marketplace is increasingly considering reuse. He provided an example of buildings being extended or expanded not through demolition, but by creatively **reinforcing existing structures** (e.g., a four-story building) to build new towers on top.

This shift in thinking, he explained, is about how urban planning and development can consider the existing built form and its potential for growth. With systemic affordability issues driving the need for more housing supply, Jack sees **retrofits** as a significant opportunity to salvage materials and integrate them into a circular marketplace. While he expressed some uncertainty about the current economic viability, he believes that increased adoption by private sector developers and architects will ultimately drive down costs, making these practices more economically feasible.

QUESTION 5 – The question was posed regarding **public procurement departments' reluctance to include circular aspects in tenders, citing complexity in preparing specifications, assessing offers, and a primary focus on the lowest price.**

Jack responded by emphasizing the need for a shift in how public procurement is evaluated. He argued that sustainability, low carbon, and circularity criteria should be monitored, evaluated, and integrated into decision-making. While acknowledging government's fiscal responsibility, he proposed monetizing sustainability benefits. For example, a bid that is financially higher but offers a significant reduction in

carbon emissions (e.g., 20% in low-carbon concrete) should be awarded. He cited the Netherlands' "CO2 step ladder" as an example of how tenders can award points for environmental performance beyond just monetary cost, allowing for a more nuanced evaluation.

Stephanie from McGill concurred, dismissing the notion that "lowest price" necessarily means disregarding sustainability. She pointed out that while lowest price is a common adjudication method, public bodies in Quebec still utilize tools like preferential margins, eligibility clauses, and tender compliance clauses to embed sustainability requirements. She stressed that even with a lowest-price approach, numerous conditions can be built into tenders to ensure sustainable outcomes.

From the Dutch perspective, Johan added that they evaluate on "effective price" based purely on carbon. This approach was adopted after realizing that in over 98% of their tenders, the price variance was minimal (1-3% on large contracts). Therefore, it made more sense to weight the evaluation on carbon reduction for projects like roads, canals, or bridges, effectively using price in an innovative way. They also advocated for using "least cost" when based on accurate **whole life costing**.

QUESTION 6 - To a succinct question from Francis (an HP executive) asking if public material sourcing process law and trade policies prohibit advances in sustainable material sourcing process, the panel emphatically replied: **"False. False. Yeah. Definitely false."** The unanimous and immediate dismissal indicates a strong consensus that these regulations do not impede, and in fact can enable, progress in sustainable procurement.

QUESTION 7 - The question posed to the panel was how they measure circularity in material sourcing contracts or supplier selection.

Johan from the Dutch government provided several key components they focus on to measure circularity:

- **Amount of Secondary Materials:** They assess the percentage of recycled or secondary materials used in product manufacturing, which indicates circular resource use.
- **Product Lifespan:** They consider the total expected lifespan of a product, understanding its exponential effect on the number of potential renewable cycles (e.g., for laptops or smartphones).
- **Repairability Indexes:** Although not yet government or EU-wide, they utilize existing tools like the French Repairability Index to track and monitor products' repairability, observing improvements over time (e.g., from 6.6 to 7.1 in one year for certain products).
- **Critical Raw Materials:** In later tenders, they began focusing on the percentages of critical raw materials within products and reported on these to ensure alignment with future expectations.
- **End-of-Life Structures:** They implement "buyback constructions" and clauses guaranteeing the reinstatement of products, citing an example where 100,000 devices were reinstated by modifying processes. This provides tangible insight into circularity.

Johan emphasized that while circularity can seem abstract, these diverse data points offer concrete insights. He added that sometimes, simple ideas for process changes can lead to significant circular outcomes.

Another speaker highlighted that there is ample **space for creativity in sustainable material sourcing**. They stressed the importance of thorough market research to understand products and their lifecycle

"hotspots," which enables the development of innovative clauses that challenge the market. This approach, combined with market engagement and a willingness to make it work, can overcome initial perceptions of policy prohibitions. They concluded by emphasizing that procurement should be viewed as a strategic cycle involving engagement with the market to understand both current and future delivery capabilities, recognizing the long-term "journey" towards circularity.

QUESTION 8 - A question was posed to Johan from the Dutch government, inquiring if their strategy includes a fifth component: "Recover to best possible use value," meaning consideration for resource recovery at end-of-use or end-of-life.

Johan confirmed that their strategy indeed includes substantial requirements for this. He explained that the Dutch government differentiates between products it owns and "as-a-service" products, as these have different material flows. For products owned by the government, items go to a central entity for reuse or sale. However, transitioning this internal process to a more circular approach has been challenging, and new processes are being developed.

In contrast, for "as-a-service" contracts, they have implemented stringent clauses, such as a **95% reinstatement clause**, meaning 95% of returned products must be put back into use. This is coupled with mandatory reporting and audit clauses, and even "step-in rights" for the government to ensure compliance. Johan highlighted that this approach also offers financial benefits, as products with remaining value are more likely to be returned in good condition and subsequently reinstated.

Furthermore, they are focusing on a more granular approach to disassembly before recycling. This involves encouraging methods like **robotic disassembly to harvest individual components** rather than merely recovering natural raw materials. This strategy aims to bridge the gap between waste streams and melting processes, particularly for materials like aluminum, which are easier to recycle while maintaining quality.

QUESTION 9 - The question was directed to Jack and Stephanie, asking about their experience integrating sustainability or circular criteria within Requests for Proposals (RFPs).

Jack from the City of Toronto confirmed their experience, particularly with **low-carbon concrete specifications** in their RFP process. He explained that while they cannot be overly prescriptive due to procurement laws, they establish a baseline of "business as usual" and then require a **10% reduction in CO2** for pilot projects and linear infrastructure. The suppliers have flexibility in *how* they achieve this reduction, fostering market innovation. Jack acknowledged the desire to award more for higher reductions (e.g., 20%) but highlighted the risk-averse nature of government and the importance of performance, especially for structural infrastructure. They are confident that the 10% reduction is achievable at no additional cost and aim to increase this to 20% in future projects as the market matures.

Stephanie from McGill University added that they consistently include **sustainability clauses** in their RFPs, often looking at product emissions and using relevant certifications. As an educational and research institution, McGill also engages in **capacity building with suppliers**. If a sector has only a few leaders in sustainability, McGill makes it mandatory for all suppliers to have a sustainability strategy and climate-related objectives, providing them with time, coaching, and advice to reach these goals.