

Challenges & Opportunities

Survey Responses Report of the On-line Consultations with Toronto's Green Industries

REPORT JULY 2019

Economic Development & Culture Sector Development Office - Green



About the Sector Development Office & Clusters

The City of Toronto is committed to advancing the competiveness of key sectors of Toronto's economy in collaboration with sector partners. The City uses the principles of cluster development to create, support and sustain robust networks of companies and partner organizations. The City of Toronto's Sector Development Office is unique in Canada and provides many services to help companies in the city's key sectors grow and prosper.

"Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include suppliers of specialized inputs such as components, machinery, and services and providers of specialized infrastructure. Clusters also extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies, or common inputs. Finally many clusters include governmental and other institutions – such as universities, standards setting agencies, think tanks, vocational training providers, and trade association."

Michael Porter, 1998. "Clusters and the New Economics of Competition"

Challenges and Opportunities for Toronto Green Industries Survey Responses Report of the On-Line Consultations March 24 - May 5, 2019 V3.03 23-jul-19 Sector Development Office, Economic Development & Culture CITY OF TORONTO

Total responses: 752

3. What do you think is the greatest challenge facing Toronto's green sector?
4. What are the best ways to overcome these challenges?
5. What do you think are the best opportunities for Toronto green sector?
6. What are the main barriers to achieving these opportunities?
7. How might governments support the growth of the green sector in Canada?
8. What can green industry organizations and stakeholders in Canada do to best support the growth of the green sector in Canada?
9. Do you have suggestions on what would help Toronto's green sector become more competitive? 47
10. Please provide any additional comments or suggestions on what you feel is needed to support the growth of Toronto's green sector

Note: A number of responses related to the needs or advantages of specific companies - the names of those companies or products were redacted from the response report. Names of politicians who were mentioned in the responses were kept in as they relate to the specific policies or positions of the political parties they represent.

This report details all the responses to an online consultation on the challenges and opportunities for Toronto's Green Industries and is complimentary to the separate Summary Report.

3. What do you think is the greatest challenge facing Toronto's green sector?

areas building buildings business businesses buy carbon change City companies cost Data electric energy etc financial funding government green industry infrastructure Interference investment Lack local lot market natural need new Ontario people performance political products programs provincial renewable sector services small solar support sustainable think time Toronto Uncertainty waste without

[Most frequently used words: Green, Lack, People, Energy, City/Toronto]

Air pollution caused by diesel, i.e. Co, Co2, NO2, NOx, Particulate matter (Black Smoke)

Lack of consumer interest to pay for increased costs of sustainable products. The green market is only so big so when there are too many providers and not enough consumers the market crashes

Financial support across all classes. City, Provincial, Corporate, Private Business

Lack of coordination. A lot of different stakeholders with an overarching goal (green growth) but with slightly diverging interests (the green sector is big and represents many people).

Lack of government long term, consistent, financial and regulation support.

1. the dominant narrative of 'growth.' We need a new narrative. 2. Assuming that technology or engineering is the solution. As we say, 'nature always wins,' no matter what the engineering solution is. we need better methods to develop our society by working *with* natural/biological processes rather than thinking engineering and technology solutions will solve the problem. For instance, if housing shortage is a problem, what are we doing to regulate the size of new houses being built instead of requiring more modest homes, apartments and condos on existing land (that we may need to buy from owners who have 'large' lots.) 3. land-use patterns that require cars. What about more walkable, bikable neighbourhoods? 4. Assuming that more consumption is good. Really, besides food, what do we continually need to purchase. The first R is 'refuse.' 5. Lack of infrastructure for circular thinking about our consumption (See Paul Hawkins, the Ecology of Commerce). How about an easy

way for everyone to *fix* all their things orrecycle their washing machine after its no longer fixable). Yes, I know that's 5, but they're all inter-related big challenges!

coalescing around core competencies that give companies a unique advantage in the global market.

Reducing carbon emissions to mitigate climate change

Interference from the provincial government including misinformation.

Developers who are turning vacant or existing spaces into high-rise buildings, making Toronto a concrete jungle. Maintaing and adding the number of green spaces currently available. Blocking out natural sunshine with 60,70,80,90 story towers!

Bureaucracy

Capital investment (from private industry or government). Lack of tax incentives. Lack of vision and commitment to implement laws that mandate cleaner alternatives in industry. A good example would be industries that create toxic waste must be mandated to find alternatives or face heafty fines or even closure.

It is still expensive to purchase greener goods and services, making it hard to obtain buy-in from the public, especially in economically disadvantaged areas.

I think a lot of people look at green innovation as choices that are less attainable than traditional options. I know a lot of people who consider themselves eco-conscious but don't - as an example - buy an electric or hybrid car. They renovate their house the cheapest way, not the most sustainable or environmentally conscious way. And outside their lives, they don't even think of what makes a greener city. And the kind of people who are engaged tend to be a narrow niche; 'green' is not an inclusive issue. I was at an event a while ago - at City Hall - and it was filled with people like me. White, middle aged, healthy middle class people. Our city needs to me more inclusive to consider what these issues mean, or could mean, to ALL its residents.

Recycling

Increasing population density, combined with political shift to the right.

Money for battery R&D. Access to community shared solar in Ontario. EV charging, especially where there is only street parking. Toronto Hydro should be allowed to deploy charging and put the money to pay down existing infrastructure.

General public buy in into clean energy, electric vehicles, etc are a major challenge. Second to this, focusing on electric vehicles, infrastructure and ability to install infrastructure for electric vehicles in condos is very difficult.

Expansion of market to include other regional players.

Education and gaining access to electronic information

Lack of provincial support - financially and politically - for green initiatives and energy conservation. Federal programs are also weak in these areas (principally because they have little or no jurisdiction in those areas).

Committing to prioritize green strategy and implementing policies and program initiatives

Supply chain and cost of labour. We were proud to have hand built our first bikes in 2014 using a frame maker in Surrey. We were not able to build a folding bike as planned, and the product was too expensive. All our advisers directed us to manufacture in China. It was a good decision since the rich bike-building ecosystem and skills there enabled a much higher quality and more affordable product.

Local market is gutted in Ontario, Need to spend time and effort looking nationally & internationally

Indifference of the general population in regards to climate change. Uncertainty about what they can meaningfully do about it.

pollution is not being reduced

Political interference by divergent interests... for example, the firesale of our local Hearn generating station by Ontario Power Generation at the direction of the province to a private developer (as opposed to repurposing of that generating station for on-site generation or more beneficial purposes).

Lack of visibility. People think of retailers selling green products, or renewable energy, but many other important aspects of the green sector aren't recognized or appreciated enough (e.g. waste and recycling jobs are green jobs)

Political leadership

Workforce skill gaps either as a result of lack of training or decrease in employment uptake.

Narrow fields of support for pre-defined sectors. The green industry is evolving and systems supporting green ecommerce, behavioural change are essential and recognized by many cities, but absent in Toronto.

Lack of supportive provincial and municipal policies and regulations.

A Canadian culture of corporate conservatism reduces the likelihood that organizations will procure green technologies/solutions/services from the green sector, due to perceived risk.

Specific to green building, low consumer demand for energy efficient and/or green buildings coupled with the added construction cost of energy conservation measures (upgraded insulation, etc) are running into a housing affordability crisis.

Uncertainty around, and capriciousness of, government policy and programs. Constant political interference in energy prices (e.g. fair hydro plan). Uncertainty over carbon pricing (e.g. cancellation of cap and trade, current uncertainty over future of federal carbon price). Sudden cuts to conservation programs. Constant change in renewable energy policy (e.g. ending FIT and large renewable procurement, ending virtual net metering before it even began, cancellation of renewable energy contracts). Growing the sector requires investment, and people are hesitant to invest without confidence in the government policy/program landscape.

I think the relatively low cost of energy (electricity and natural gas) makes the economics of many energy efficiency retrofits challenging. There is also an issue of trust between vendors and property owners/managers, with many fake or unreliable products and services on the market.

First, clean tech innovation is moving faster than the City can keep pace. The City's definition of clean energy omits several proven technologies already in operation, including: wastewater energy transfer; energy sharing; and various forms of energy storage. Second, the City does not have a strategy in place to help facilitate the development of new technologies. i

Disconnect between the agencies. Lack of acceptance of green from the top down. Lack of incentives to encourage going green.

1) Funding opportunities - Small businesses should not be in the same categories as medium sized businesses. When applying for grants it is difficult for a business of 5 or less to compete with businesses like Molson Coors and Tim Horton's for funding. Also for exporting small business is not included. 2) Rebates - We just put in solar and wind to power our operations and there was no financial aid or rebates. 3) Definition of a Social Enterprise

Transportation Politics

The lack of recycling bins or programs in condos and apartment buildings. Not making new developments green friendly

Financing projects.

Doug Ford

Lack of affordable property. This would include affordable commercial properties such as office and industrial as well as residential for employees.

Pollution and lack of care about our city by many residents

Data availability, data reliability, communication about actionable use cases of environmental data. In the past, governments have released funding toward projects and faced issues with accountability of the effectiveness of projects implemented (both government programs and end-user performance). Instead of allocating funding, ensure thorough monitoring data exists to track performance and assign accountability.

I like to put solar in my house Roof and a small wind turbine in my back yard. But Old city outdated bylaws do not allow it. Not a financial support system form the city make the changes.

The greatest challenge is the lack of multi-disciplinarian view on the entire process. It would be better to think of it as a closed-loop system, comparable to the human body, where everything works together to achieve the desired outcome.

The lack of green spaces, natural areas and ESAs,

Urban transportation

Having to compete with cheaper products that externalize the cost of environmental damage. Competing in a regulatory framework where individuals and companies are allowed to choose regularly to damage the environment at no cost.

The resistance of people to change. I think people are caught up in what was always 'easy' versus trying something new. It seems that most 'green' products are also a lot more expensive which discourage the general public from participating in this economy.

There is a fundamental lack of understanding of how each individuals' actions have an impact on the environment. Without people realizing their own impacts, it is very challenging to get them to change their behaviors to those that are less harmful to the environment.

Current accounting and legal structures provide no incentive for revisioning triple bottom line impact across local business ecosystems. At present, every organization is viewed through an independent legal and financial reporting entity without regard to the dependencies in it's local value network. There is a need to redesign sets of inter-related value propositions across local business value chains.

Accessibility for all residents. Providing the tools for Torontonians to find these resources.

Overcoming government interference and over regulation

Lack of awareness of the benefits to the economy by going green

I am in the building sector. It is clear industry will innovate to deliver the performance levels required for international competitiveness when the domestic market requires that level of performance. Government incentives can never be adequate to motivate broad transformation. Companies require a market for the products they develop, and without a clear path to high performance buildings, companies do not invest in the required innovation.

Getting our building stock improved - so much opportunity for improvement, but so much complacency..

I think one of the greatest challenges is the political will and having the different levels of governments and different political parties working together.

Dearth of innovators to improve technology. Lack of political will.

The biggest challenge is cost. Generally, green sector supplies and services are more costly than cheap and imported but unsustainable supplies and services. As consumption of sustainable supplies and services goes up then the cost will go down but there is the initial hump to get over.

lack of unity

Lack of financial incentive for Green Companies. Traditional ways are often cheaper in the beginning.

The cost of space is generally very high in the city, while at the same time there are a number of opportunities to collect organic waste from urban businesses and institutions. At the current time, the solution is to pay waste companies to haul it away at a cost that most small businesses can't afford.

Transportation emissions

Right now it is the Ontario government. At any time, it is difficulties for small manufacturing companies to ramp up without proper investment and resources, ie. mentors, financial advise, investment etc. The green sector is based on the most benefits for all and many investors and banks are looking for the most benefits for themselves.

finding sustainable green energy sources, optimizing homes to become more carbon neutral (insulation, solar panels, etc.)

Very closed minds on Staff in City of Toronto Forestry. I have suggested on numerous occasions that some criteria be gathered from Urban Log users to do some sorting into piles (like the rest of the logging industry does). This would utilize space better and enable a bid process to be set up where companies bid on lots as opposed to Forestry pushing logs into a tangled mess and having bidders bid on logs sight unseen. This would allow for more material to be utilized.

Awareness and engagement of communities can help sustainability and sustainable solutions.

4. What are the best ways to overcome these challenges?



[Most frequently used words: Green, Lack, People, Energy, City/Toronto]

dynaCERT Inc., a public company based in Toronto expanding globally, has developed a technology which reduces carbon and other emissions and increases fuel economy by reducing fuel consumption. The commercial product has just been launched and has a payback (ROI) of under 1 year to truckers and diesel generator users (see www.dynacert.com)

Stop the rising cost of housing as homeowners disposable income is being pressed so that they are seeking cheap solutions.

City, Provincial, Corporate, Private Business needs to take ownership of these challenges and put the money where the mouth is and just get it done. Enough is enough of studies and just talking about how?

Provide guidance on how best the stakeholders of the Toronto green sector should interact. Maybe have City of Toronto act as an overarching organization assembling and guiding those different stakeholders.

Establish a provincial Crown Corporation responsible for the design, implementation and monitoring of a comprehensive energy conservation and alternative energy development plan. Such an organization would be independent of government control and be self-funding once established.

See above. Everytime we plan to implement something (e.g., build a road, expand a transmission line) aks a more fundamental 'upstream' question. For example, for roads: how else can we move goods and people? for a transmission line, do people 'need' more energy? how else can we get energy to people (what if we had a distributed energy grid where every building produced its own energy)?

(what about reducing the number of street lights in 1/2? We'd still have plenty of ambient light at night time, for instance (see the book 'Ecotopia' for some interesting images of what it could be like).

Provide companies with access to unique insights (urban energy planning and optimization) on local challenges that have global impact (ie a resiliant grid) so that they can accelerate success and carve our a leading position in the global market. In that way we can create leading companies that can dramatically impact not only Toronto's problems but similar problems around the world.

Promote childless or one-child families, electrify all forms of transportation, insulate and heat pump buildings, replace fossil fuel generation plants with renewable energy & storage technologies, replace old grid with smartgrid, promote conservation and reduced consumption, link politician compensation to emissions reductions

Public education campaigns and enforcing city standards (for example the Toronto Green Standard).

Maintain current green spaces, expanding where possible. Check out Singapore's infrastructure model & requirements for new develop!

Partnerships

Stringent regulations that are implemented over a relatively short time to give industry time to react but not let them off the hook. Regulations must be enforced. Clean water, air, land, food must be a priority and a basic right for every Canadian. Offenders must face legal actions and be held accountable to the public.

Reach out to disadvantaged individuals and communities to provide education, volunteer opportunities, jobs for youth and people with disabilities. Buy-in is easier when one is involved in the green community anyway. Maintain grants and provide scholarships for residents entering green post-secondary education or apprenticeship programs.

Invest in public education. Not just campaigns and leaflets but neighbourhood events that engage people across the city. No shaming over how people are looking at the issues but showing how little things matter. What a circular economy means to them. What happens to the waste water from a bakery, when untreated before it goes into the system, and that's why we all as a city need to invest in clean waste water solutions locally. Have public tours of places where clean, green solutions are in place so everyone – not just industry experts - can get engaged.

Circular economy through pyrolysis, in part by developing industrial cluster

Seriously? If there was a 250-word answer to this, all our problems would be solved.

Open the existing regulatory frameworks. Change regulations for LDC's to make money from charging. Install more fast chargers.

Incentives and regulation combined with more public education.

Support the promotion of best management practices/policies in other jurisdictions. Clearly document successes in Toronto... like Green Roof By-Law after 10 years. Need assessment of impact.

Mobilize it and make it available so we can all work together. Building owners, operators, Governments, energy Utilities, Green Tech helping each other and sharing information

Elect a different provincial government.

Actions! Many evidence based options and successes here and elsewhere to build from. Need fresh surge of energy, commitment and muscle to get us on board.

Help small businesses get access to full service advanced manufacturing facilities that can do fabrication and production on a contract basis. We cannot do this individually, but is needed to rebuild the industry. CNC, TIG welding, robotics painting etc.

Stop gutting local market

Education, clarity of purpose and message and social and political leadership to make tough decisions.

our tested and verified (by third party) **hydraGEN** technology will reduce pollution +50% from all cityowned diesel-powered trucks, buses, equipment and from all public-owned diesel powered vehicles.

Go deeply local; go international. Lots of citizen support/engagement in Toronto's evolution.

More collaboration - the City can help 'brand' the growing green sector in Toronto and help these small businesses promote Toronto as a green innovation hub (NOT just in tech)

Businesses to advocate for more leadership

There is a need to 'skill up' the current workforce by establishing stronger partnerships between unions, businesses, etc, with academic or training institutions. More training is required to teach those who play a critical role in the low-carbon economy, why their role and responsibility is important, learn about low-carbon options and buildings as systems. Simultaneously, more effort needs to be made to increase employment in sectors already forecasting labour shortages (i.e. construction).

Wildcard funding based on plausible impact numbers. Fund per metric ton of carbon impact for proven ideas.

Pressure on the province. Toronto could start a municipal trend toward supporting its 'green' sector by organizing a summit, ongoing meetings - anything to make the sector and jobs therein more visible.

- Support the green sector to develop business cases for the solutions, which address financial and risk implications. - Support the green sector to gain access to organizations willing to be early adopters of green technologies. - Support and promote demonstration/commercialization projects to provide proof of concept.

Communicate the value of quality/energy efficiency/low-carbon housing to consumers, and engage and educate the residential construction industry on how to build and renovate to higher standards.

Positioning climate change and sustainability as non-partisan issues. Designing policies and programs that are either too popular to cancel, or to obscure and complex to serve as wedge issues in the next election. Risk sharing arrangements between the public and private sector, such that government absorbs some of the risk associated with policy/program uncertainty.

I would like to see the continuation of existing incentive programs, as well as increased carbon pricing that would encourage energy efficiency upgrades to existing buildings.

First, the City's definition of clean energy should be more broadly defined as any technology that sustainably reduces carbon. Secondly, the City needs to develop a triage approach to new technologies where a dedicated City team helps companies navigate through the maze of requisite City approvals to bring a project to fruition. Certainly, minimum requirements should be put in place including insurance and provisions to ensure fair competition.

Stormwater taxes and credits for permeable surfaces. Inclusion of green alternatives in government type buildings. People learn by example

1) Funding opportunities - change policy. Offer grants or incentives separately for different sized businesses. 2) Rebates - offer incentives or financial aid for companies that are already part of the green economy for solar, wind or other green power. 3) Definition of a Social Enterprise - Like British Colombia includes for profit social enterprises and this will give small green social enterprises more funding opportunities

Community Engagement Low-cost solutions investment in infrastructure

Make builders of new developments put in solar panels or green roofs and large green spaces around there buildings. Get recycling programs in condos and apartment buildings

New government regulation giving companies a tax break to develop the technology.

Partnerships

One option might be to provide property tax subsidies to business startups in the green space. Creating nodes or industrial parks sponsored by the city or on city land might also help.

Enforce bylaws. Keep city cleaner. Get in with high priority projects and cut the political talk all the time

A big part of the problem of sustained performance can be overcome is to support businesses in data management and reporting. Businesses do want to showcase their environmental leadership - we have heard from businesses that company values are now more important even than compensation levels in securing talent. And also to lead by example in data management as a municipality (is there a standard for measuring a city's environmental performance? where does Toronto stand?).

Please change the old by-laws and please do not take other 10 years to update it. Provided financial support and make policies for homeowners when they like to make the shift to green power. A city can register a second mortgage on the property so when the homeowner is up for renule of the mortgage they can pay it.

Learn from others' mistakes. Movements like Transition Towns, Ubuntu Movement, Open Economy, TVP. Check out Chicago, Detroit, Barcelona, Seol, and many more. Adopt appropriate technology, and ignore some public noise as you focus on the next 100 years instead of one political cycle.

Balance and extend provision of Green initiatives among all City of Toronto departments. Recognize, communicate and include that improved health outcomes are in the goals for these initiatives.

Battery-electric traction

Regulations where possible to make green sector products and services the only option or at least a more attractive option. I.e. limit space for parking and cars, increase protected spaces for bicyles, and more people will be interested in purchasing bikes or ebikes. Make it a condition of even permits that all food and beverage containers be reusable and be washed and there will be an automatic market for plate and dish services. We try to do too much with incentives. We need to bring regulations in line with physical reality.

Make green products and services more desirable and affordable. Find ways to incorporate things into daily life of people. Good investments in the sector. Outreach to increase interest in the sector.

Education and communication that goes beyond telling people what to do to and explaining why they should (why is it important? Why is this action relevant to the environment/ climate change? etc.)

Policy incentives and tax rebates need to be structured to encourage local business ecosystems to work collaboratively to reduce carbon footprints across their value network as a whole. We need to create a market whereby inter-related businesses are rewarded for working together to optimize value creation in the local ecosystem/watershed.

Maximize incentives for residents in multi-resident dwellings. Create policies to support these green initiatives.

Eliminate the dichotomy of encouraging environmental actions while simultaneously enacting bylaws that essentially prohibit or discourage them (eg. Pollinator gardens vs tall grass & weeds bylaws and 'natural garden permit' system; downspout disconnection programs that allow water to be diverted to driveways to funnel more contaminated rainwater into storm sewers; permit requirements for geothermal systems etc)

personal outreach in every way possible

Our national building strategy is excellent and the Toronto Green standard sets out a path gradually increase performance levels, but both of these strategies would benefit from a higher profile in the GTA. Leading markets such as Vancouver and BC have started to implement a wide variety of policies and regulations to catalyze market transformation, but the profile and awareness of this subject appears to be lower in the GTA. There are nearby cities, such as Hamilton, that could support this initiative and are demonstrating leadership on their own.

help connect businesses with financing options, build programs to make building owners aware of how profitable doing retrofits are, and support them to make it happen with incentives.

Educating and informing people on the benefits of adopting new ways of doing things.

Deal with some of the issues around affordability of housing. Toronto has become unattractive for young people working in this area.

Taxes and incentives

bring people together

Factoring in GHG and other green benefits in public contracts. GHG emissions need to have a cost associated to it.

Through creative use of existing spaces - both publicly and privately owned - to allow for micro scale organic waste processing equipment and services.

Congestion charges, more carless streets, planning for walkability and transit

Communication of the benefits of promoting the green sector. Investment but also mentorship for those focusing on creating a true sustainable business.

Education, subsidies for programs that encourage home owners to adapt their house to become more energy efficient and carbon neutral

Change the current bid process from 'winner takes all' for 2 years to a process where lots could be bid on twice a year.

Interventions of all stakeholders.

5. What do you think are the best opportunities for Toronto green sector?

air around become build building buildings businesses carbon **City** Clean conservation construction data development efficiency electric emissions **Energy** food further **Green** housing impact Local LOT management micro need new one opportunities opportunity people products projects promote public reduce scale sector solutions support sustainable **Toronto** transit transportation vehicles waste water Wood

[Most frequently used words: Green, Energy, Support, City/Toronto]

As an entrepreneur in the waste sector, I see these opportunities most clearly. There is a lot of organics being produced within the city that currently ends up on garbage trucks because it is produced by the ICI sector which is not required to separate organics from garbage. Diverting this material would create a big financial and environmental impact. Furthermore, multi residential buildings produce a lot of organics that is not current managed as sustainably as it could be. Micro scale processing facilities could handle this material.

Items above

Toronto is booming, we have money and we can spend it to benefit a future minded economy. We have world class designers and creators and people looking to use their money to invest in our collective future.

Identify and work with early adopters to encourage them to expand their influence out further into their value networks. Find new candidate firms that are willing to prototype new approaches to transforming the value networks to which they belong. Implement the policies and incentives necessary to nudge local Toronto businesses into collaborating across enterprise boundaries.

Opportunities related to reducing energy consumption in buildings. Toronto has A LOT of buildings (residential, commercial, institutional) that need to be retrofit.

There are still many energy conservation opportunities that can be implemented across the city's own facilities. Conservation saves money AND displaces GHG.

Try out new ways of thinking (such as those ideas listed above) as demonstrations/small scale to help show those who believe the dominant paradigm of thinking that working with nature is ultimately better.

Clean energy/storage and grid optimization/resiliancy. Waste management - global city lessons learned can be transitioned globally Intelligent cities

mandatory green roofs and energy star appliances, electrified and under-ground and elevated transit, municipal carbon tax, license and motor-sizetaxes, many more trees and green spaces, link politician compensation to emissions reductions

Insist developers include green spaces/eco friendly development in any new projects plans. Check out what's done in Singapore

Biochar

To implement stringent building codes that mandate development of environmentally friendly solutions including the use of cleaner technologies in roads/sidewalks and building construction both commercial and residential. This must not be optional and bold measures must be adopted.Partner with Ontario's cement industry to exclusively use cleaner cement in all of its construction projects.

Continuing to green transit and encourage use of greener transportation. Making public transit cheaper, more accessible to people with disabilities (install more elevators in stations), and more frequent in underserviced areas will assist more people in being able to use public transit.

Local, micro waste water management solutions for SME, public buildings, hospitals etc and apartment buildings/condos. Also microgrid electrical solutions that make buildings more self-sufficient.

Creating new bio-products out of the residues (construction/demolition, food, tyres, plastics)

Neither I, nor any other average members of the public, are in a position to know this.

Electrification of cars, trains, buses, trucks, would allow Toronto to be as quiet as Muskoka along with the air quality to match.

Clean energy and sustainable transport could be exploited more.

work together, do plans on larger scale, not piece meal. create incentives for large businesses to become cleaner and more energy efficient.

Understanding and Policies for MSW and MSHW waste. Recycling on-site to address landfill stress and environment impacts. Reduce cost and initiate SROI.

City usage on buses, garbage trucks, city utility vehicles, and legislation to enhance sales and installations of products of dynaCERT Inc.

Promote Canadian. Often green products come from China due to cost, and unfair competition. Promote Canadian businesses as it reduces the transportation impact.

It is proven that the most immediate impact to reducing the carbon footprint in Ontario is the switch to Electric Vehicles. We need the city to start enforcing EV only zones such as the downtown core. This means a total commitment to supporting EV Charging infrastructure. Many European countries are already implementing this.

Set green infrastructure goals and develop financial mechanisms to reach them.

Utilize the devices we all already carry around with us (mobile devices). Build a mobile tool that everyone can learn from. Start off with Toronto's Government buildings and allow others to get involved and add to the building footprint

Focus on projects that have the best bang for the buck. Focus on projects that actually reduce CO2 production with measurable results.

Support grassroots energy afoot that engages and educates, initiatives with demonstrated results (with focus on effect rather than self promotion). Use support of these initiatives to show City commitment and springboard for further education and energy at ground level, across sectors.

Green buildings (given the pace of our development and the talent already here) Smart engergy - esp. HVAC systems Innovations in sustainable transportation.

Grid, storage, wind, bio, hydro, solar, transport

We seem to be a tipping point. All organizations, companies and individuals with skills, knowledge and technologies need to rally around a small handful of concrete actions that the populus can understand and take action on and promote the hell out of them.

our technology is available NOW but no one in Toronto is listening. we have customers around the world but not here in our own home city

Leverage Toronto's moment in innovation, which is being recognized internationally. Collectively map/parse out the industries we have and how these can meet major challenges being faced in Toronto and around the world.

Creation of standardized training and strong marketing messages to both attract existing workforce to skill up and youth or unemployed persons to find a career in the low-carbon economy.

Behavioural change, retail readiness for sustainability.

While climate change is a daunting realization for many, it equally provides many opportunities to do things differently and embrace the green approach.

Low carbon transportation, smart data and metering, waste management, energy efficiency, water conservation and efficiency, on-site storm water management

The housing crisis in Toronto presents an opportunity for the city to support missing middle, gentle density infill re-development and renovation throughout the city thereby merging 'green building' with 'green zoning'.

Retrofitting homes and buildings to dramatically reduce carbon emissions represents an enormous market that is mostly untapped. Much of the work is inherently local (e.g. skilled trades), and the consequent reduction in utility costs creates further economic stimulus. Commercial arrangements

that keep service providers engaged beyond the retrofit can deepen the economic opportunity while enhancing outcomes (e.g. continuous commissioning, energy services agreements or power purchase agreements, 'design-build-operate-maintain' type business arrangements, energy efficiency as a service, etc).

An opportunity exists with respect to green micro-mobility. Our internal data indicates 30% of riders globally would have taken a personal car, taxi, or rideshare, if not for the availability of an e-bike or electric standup scooter share operations in their city. While micro-mobility won't solve everything, it's one solution to the problem.

Waste water energy transfer offers one of the greatest untapped renewable energy options available to the City immediately. It has the potential of providing a recurring revenue stream for the City in the form of fees for use of the sewer system and also significantly reducing carbon emissions.

Permeable paving. Dedicated lanes for green vehicles. More efficient and affordable public transportation

Wood waste - more wood waste being turned into higher value wood products. Having the opportunity to utilize city lands and building to scale up. Having wood dropped off at these locations instead of the wood going to the wood diversion lots.

Energy Conservation and efficiency. For every dollar invested in energy conservation and efficiency, \$0.80 is reinvested back into the economy. It is a win win for everyone.

Invest in green energy companies, advertise recycling programs. Keep the ravines healthy and clean

New housing/structures incorporating trees/plants to filter the air in the city and to reduce heat build up. Older and even the new buildings are badly ventilated and become 'overheated' in many instances which are not conducive to healthy living.

Biochar

Green building would be one given the concentration of real estate companies and engineering firms located in Toronto. Leveraging specific areas of the Toronto Green Standard might be a start. Hyper

urban green transportation could also be a good opportunity by focussing on certain areas such as electric bikes and scooters.

Encourage in all school systems . Put price on plastics bottles etc. More push on Keep Toronto Clean And on trash disposal

Cleantech focused on sensing, aggregating and interpreting data is the next big wave in the industry and is just scratching the surface on what is achievable. It helps that Toronto has a strong and growing tech sector.

There is a lot but city old out dating bi-laws limits them from growing. Not having favourable financial structure is another issue. Just imagine every family home in our city has a solar roof? Imagine some back yard has small windmills. City parts las wind mils

Public transportation, local food, and energy production, and housing. Toronto can build redundant micro-grids for energy in most neighborhoods, enforce smarter housing regulation with food computer systems and localized recycling/upcycling.

Strong policy foundations and research into the benefits. Research should look at cradle to grave processes for green industries, best practices, safest non-toxic activities and innovative businesses that bring solutions for the legacies of old businesses that we find in contaminated lands, water and air pollution in our City. See the City of Toronto's ChemTRAC data base on air emissions from industry.

TTC making, buying and leasing electric bikes and trikes

I believe that the most achievable and relevant opportunity for the green sector in Toronto is establishing a larger network of green transportation. This includes expanding the City's bike lanes, supporting public transit development, and building infrastructure for electric/green vehicles (ex. EV charging stations). This should also be coupled with further promotion and education about these green developments.

New alternative energy installations, particularly on a neighbourhood scale vs individual residences/businesses.

anything food related, growing gardens, community gardening, communal eating/cooking places in the parks,

Building on the confluence of expertise in key sectors in Toronto (e.g. AI, biotech, renewable energy)

In terms of employment and economic impact, buildings are unquestionably the largest opportunity. They engage a more highly trained and competitive workforce, designers, contractors and building operators and represent billions of dollars of investment annually. Well established national and local policies support market transformation in buildings. Most importantly, it represents an opportunity to provide consumers with a better product. 'Green buildings' has, unfortunately, become synonymous with greenwash and superficial technology. True high performance buildings, such as those targeted by our national building strategy, not only deliver efficiency, they are better buildings offering unparalleled comfort, health, affordability and resilience. By focussing on the multiple benefits of true high performance buildings, market demand can support the required transformation and innovation.

become a green city that people look to - lower our build environment emissions, preserve our green space, and continue to innovate in being a hub for green energy businesses

There are a lot of innovative people and businesses in Toronto and there are plenty of successes we can learn from other countries and cities.

Green energy for transportation.

The reduction of costs to individuals and businesses by using sustainable products, materials and services. We can generally demonstrate the short term and long term cost reduction to users and businesses by using sustainable supplies and services. It is in their best interest. This is an incentive to potential customers if they understand that savings is more important than convenience.

creating communities - too much traffic, so much condo development - not enough thought into how people live - what will this city look like in 10 years?

New construction techniques need to be looked at.

6. What are the main barriers to achieving these opportunities?



[Most frequently used words: Green, Lack, Energy, Support, Government, City]

Permitting, suitable spaces at feasible costs, systemic level barriers like a lack of ICI regulations and a general leaning towards the status quo.

The province, the province's opposition to congestion charge, lack of will to make more streets carless.

Ignorance.

Status quo legal and regulatory frameworks focus on private enterprise and the servicing of shareholder priorities first and foremost. We need to change the corporations act in Ontario such that the interests and priorities of other stakeholders (e.g. future generations of our children) must be taken into account. The main barrier is essentially a corporate governance issue.

Lack of funding/investments. Currently at the provincial level, lack of support, in fact hindrance.

TAF's focus is on actions that create a revenue stream for them. Most conservation actions do not create a revenue stream - they save money for the facility owner - therefore TAF does not normally pursue them.

overcoming what Jeff Rubin (author End of Peak Oil) calls the 'efficiency paradox' (We continue to use way more per capita and are always expecting more. What about the notion of 'enough?' (see here for an explanation of efficiency paradox: http://www.jeffrubinssmallerworld.com/2010/01/06/why-energy-efficiency-ignites-more-energy-consumption/)

Funding Regulatory

politician cowardice, Conservative party greed and capitalism at a huge environmental cost

City Council caving into the Developers for the sake of money. Keeping them in-check and and using the tools/laws at hand to halt any inappropriate projects

NIMBY and bureaucracy

Political will to make bold changes to legislation. I believe that the people of Toronto want the city to be a leader in Green industry/technology. A key would be a strong in your face but simple communication plan. Toronto has a climate action plan and noone I know knows about it!

Cost

New solutions are more expensive than traditional, more risky. More unknowns.

Lack of information and knowledge on pyrolysis/torrefaction technologies by the policy makes, cities administrators. They vote for supporting industrial sectors only when they know about it, if they don,t know the power of pyrolysis, they can not support projects.

Ditto

Old school government bureaucracy.

Public education.

funding? reluctance from city to push for green programming because of our anti-environment government (Ford)

Staff saying they don't have the resources to do anymore than push logs into a tangled mess. A lack of foresight and unwillingness to utilize the resources they already have.

Engagement of City of Toronto and clear mandate.

Costs, but dynaCERT's technology pays for itself as, while it reduces pollution, it saves on fuel consumption while at the same time it allows diesel engines to deliver more power.

China

Financial and Education. People have to have the knowledge and the resources to implement change.

Lack of political leadership.... spending too much on road infrastructure and not enough on green infrastructure. Lack of political leadership at the provincial and federal level of government.

Red tape and vision outside of the business silo you work in so you can work with others. Personnel movement and siloed agenda's also cause issues.

Many of the best bang/buck projects are not very glamorous and don't have the 'High-Tech' or 'wow' factor that politicians want. Or they don't produce an actual revenue-stream that attracts 3rd party investment.

Capital and small p politics dragging us down and under. Too much myopic short sighted thinking and efforts expending/leaking energy and resources towards self promotion.

Policy support, tussle between local, provinical, federal govt

Self-interest, shareholder value and a lack of leadership.

No One is listening to our message.

Shifting political winds, for example the outcome of the federal election will have a sig impact on support for green industries, even on a local level.

Data collection, lack of standardized training or certifications, and manufacturers of green technology not taking responsibility for offering post-procurement services such as workforce training, trouble-shooting, and monitoring and evaluation.

Lack of city planning.

Inertia; we've always done it this way; building code requirements; the current provincial government.

The Official Plan designation of 'stable residential neighbourhoods' and associated zoning by-laws (RS, RD, etc).

Uncertainty over, and capriciousness of, government policy and programs. Low energy/carbon prices at present, with no certainty that they will trend up. Growing shortage of skilled trades. Limited availability of integrated, 'turn-key' project delivery services for deep retrofits. Fragmentation of the market and lack of project aggregation or standardization to drive economies of scale.

Main barriers to expansion of green micro-mobility (e-bike and/or electric standup scooter share programs) is regulatory. The province controls which vehicles access public roads and electric standup scooters are not currently permitted (although that's starting to change in Canada) and municipal regulation that may limit their utility through placing limits on where they can be ridden (can they be ridden in a bike lane) or where they can be parked or limits to scale (by placing very limited caps on supply).

City approval to access the sewer system.

Lack of acceptance. Antiquated building codes and out of date zoning laws. Disconnect between the departments.

Access to funding and better partnerships with the city.

Ford Government. We need a better more rigorous provincial 'conservation first' framework.

The council itself, talks a lot, but does nothings, when builders ask for permits make it a contract to get green energy in the buildings or no permits. More biking lanes, cut down on car pollution. Make ares for more green spaces and not just miles upon miles of condo development

Older politicians who don't want to accept we are having issues with planet warming and unsustainable energy resource stripping, choosing dated infrastructure systems that by the time they are funded are obsolete and just want to 'retire' without changing anything very much.

Doug Ford and Council

Property owners usually focused on their own portfolios and there is a lack of knowledge sharing and collaboration between them.

People and attitudes

The value of these tools need to be showcased. There are lots of little steps companies take, but seeing the overall value of modernizing their data management and communications is something the city can do.

Old city outdated by-laws and not have the proper city-funded financial support system for the homeowner.

Short term planning usually wins, as politics act in short cycles.

Leaving it up to the discretion of the industries and businesses. Consider a by-law.

North Americans are blind to what is going on in the rest of the world regarding urban transportation.

Financial barriers are generally brought up as the main issue in achieving environmental goals in my experiences working with property managers, organizations, the public, etc. The budget for a majority of individuals in the city does not allow for changes that may be more costly (retrofitting homes, purchasing electric vehicles, etc.). Properties/ businesses generally err to the side of whatever will cost less, which often ends up being the more environmentally harmful option.

Financial accessibility

Government interference and over regulation

government stasis and territory attitudes

Current government policy.

This is an entire field of study, and has been well documented in various policy documents. The solutions are not novel, but do require public support and profile, with a commitment to change existing practices. We have the policy foundation in place, but the subject requires a higher political profile in some locations.

I think the greatest challenge is that the traditional infrastructure and system which are created in the past and so it is not designed to support the green sector. And people tend to be resistant to change.

Cultural attitudes, habits and opportunity. The linear economy is all we know and the most accessible for most people.

lack of unity

Lack of incentive to try new technologies that may provide green benefits. Without a measurement tool to analyze GHG emissions, there is no way to allocate a cost to it.

7. How might governments support the growth of the green sector in Canada?



[Most frequently used words: Green, Federal, Provincial, Support, Government, City]

support programs, create more hubs for charging electric cars, penalize products that are producing more CO2 vs. products that are greener/cleaner. Tax on fuel

Government should issue mandates/regulations for all MSW and MSHW waste and engage waste management companies to share audits of recycling. Sending waste overseas or sending to landfills is not acceptable nor sustainable solution practice.

subsidies from federal and provincial governments; usage by Canadian governments and cities

By changing the legislation and regulations to ensure private enterprise serves a broader set of stakeholders, that includes the public and social development interests, as well as preserving the natural environment. We need to stop living off our natural capital and stop externalizing business costs onto society and the environment.

Provincial government should stop dismantling any policy/program that yields environmental and economic benefits and instead, expand those.

Federal - Provide (joint) funding for Provincial programs. Federal rules for transportation energy conservation made tougher - ie: like California's rules. Provincial - modify building codes to enforce much stricter energy efficiency and conservation regulations - for new and existing buildings.

See above. Governments can consider regulating consumption, transportation, and so forth. For instance, charge the full-cost price for parking, make more areas pedestrian only (what if downtown were only pedestrians and everyone had convenient, frequent transit to get downtown), stop subsidizing farmers for producing foods that aren't in proportion to the way humans should eat (e.g., we produce too many (subsidized) grains and not enough veggies), or price the goods we purchase by taking account the price of the full life cycle for production (e.g., pollution generated in making the good, cost of disposing the good).

co-fund pilots and demo's that have clear line of sight to commercial scale up globally

Carbon taxes and environmental planning & regulations at all levels; link politician compensation to emissions reductions; lead by example by purchasing new Canadian green technologies (especially PHEV and hybrid vehicles)

The City must use what laws currently available to better manage/monitor unscrupulous developers. Work with the Provincial government to develop new laws to help the City meet it's mandate once goals are established

Federal incentives and just do the opposite of what Doug Ford suggests.

All levels of government should be on board to support the green sector. Incentives, tax breaks, investments all need to embraced. A strong legislation with penalties for non compliance of polluters must be implemented.

Incentives for going green, such as tax credits (federal and provincial government) or awards (any level of government).

Funding, such as incentive grants for energy-efficient renovations. Grants for electric or hybrid cars, electric bikes. Especially with Ontario cutting funding across the sectors now, there is more opportunity for the city to step in with solutions.

Every level of governments. Cities directly to solve some of their specific problems with residues, provincial and federal to support larger projects and R&D funds.

Who is this 'survey' written for, and how do you imagine you're going to receive worthwhile answers? 250 words to analyze the roles and potential undertakings of 3 levels of government? In 10 provinces and 3 territories?

Allow for access to virtual net metering of solar projects. Allowing people in condos to sign up for enough offsite solar to power their home and EV.

Grant programs.

Promote the green products that Canada builds the most so we support our economy.

It is just money. All levels of government need to re-prioritize their commitment to the Environment and put their money where they want the action and results to be. It is that simple. Look at Norway and the Netherlands for how they are achieving 30-40% of all cars on the road are Electric.

Set aside 10% of all infrastructure funding for living green infrastructure. Would create more jobs and provide great public benefits than grey infrastructure alone.

City of Toronto - The 'lobbyist' mechanism you have greatly effects the ability to get parties working together. It adds a layer of reporting that can only be supported by larger organizations or parties that want to limit change Ontario - The inability to work with the Ontario Government on 'Green' is an issue. Focus needs to be on Digitization. Federal - There is a political imbalance between Federal and Provincial Governments in the Green Space that needs to find a common ground.

Federal: set tougher efficiency standards - for everything - quickly. CO2 labeling - nationwide. Provincial: also set tougher efficiency standards. Establish a 'Crown corporation' whose mandate is to promote, develop, implement and fund alternative energy and energy conservation initiatives. CO2 reduction would be its primary goal.

See above

All levels can support the growth by being users/testers to showcase the technologies.

Consensus and policy support and then let businesses run with oversight and accountability

Carbon tax is a good step but only part of the mix. Toronto government needs to take meaningful steps to develop a new tax regime that incentivizes residential energy and water sustainability retrofits and upgrades and hits people who don't make the changes harder with increased taxes.

listen to the technology innovators

The Atmospheric Fund has been a key catalyst due its relative immunity, governance and independence.. can such similar trusts be fostered to incentivize green enterprise?

Toronto can help bring together and support small businesses and social enterprises; grants from any level of government can help, but local grants for social enterprises and community start ups are best coming from a local government; Governments can also improve procurement policies to support green businesses by including requirements to buy recycled content, buy local things, require local community benefits etc that can support innovative practices by businesses

Federal- funding investments from carbon tax Provincial- creation of Ontario green cluster Municipalleverage purchasing power (procurement policies), subsidies, creating Toronto green cluster

At the city level, providing high visibility platforms for companies (especially startups), that are doing something truly innovative. A lot of funding is going towards stale solutions and large firms who don't need it.

Regulations and changes to both the federal and provincial governments to encourage green buildings as the way rather than the exception, and changing the tax codes to support that (fed and prov).

all three levels of govt. - funding for ENGOs to support green sector organizations to gain access to local businesses and markets provincial and federal - funding for green sector and technology buyers to implement projects municipal and provincial - reducing regulatory barriers to setting up production facilities and commercializing products

There are three ways the City of Toronto can incentivize green building: fast track approvals, reduce development charges and/or allow additional density.

A stable and predictable carbon pricing regime is critical, whether at federal or provincial level. All levels of government can help stimulate demand through retrofitting their own building portfolio and
the broader public sector. The City of Toronto could explore either a building performance standard (e.g. like NYC's new policy), or use of more limited tools (e.g. improve property standards code to address efficiency and resiliency). Province could create energy efficiency requirements at time of renovation under Ontario Building Code (as previously consulted on). Province or federal government could have better designed, more stable and predictable programs to fund deep retrofits, especially for community housing.

Carbon pricing from the provincial or federal government. Increased incentive programs for energy efficiency retrofits. At the City level, I think the community-building, hosting of events for property managers/owners and vendors, and general support of the industry is great.

Federal and provincial governments need to introduce carbon pricing. Municipal governments need to provide access to city infrastructure and financial incentives to building developers and operators who adopt green energy initiatives. Also, renewable energy must be explicitly included in the City's planning lexicon. LEED is not enough to meet our international commitments. LEED standards are the minimum we should strive to achieve. Not the goal. Finally, we need to set hard emission targets like New York.

Municipal, provincial and even federal grants and incentives for taking steps to go green

Stop giving funding to corporations like Loblaw's, 12 million dollars to replace refrigerator's when they have their own money to replace them - or \$500,000 to install mechanisms to reduce water to Molson Coors when they have their own money to do this.

- Through regulation, create a market where competition and flexibility are priority on the electricity system. - Bold transit infrastructure investments. - Use a consumption based tax to pay for it. E.g. sugar tax

The province won't do a thing so the city has to. Partner with the Feds on green energy programs

Invest in the scientific research and development (people and plans) of new strategies to cope with what is coming in the near future.

Get out of the way.....

Creating nodes or innovation parks at subsidized rents to green startups or small scale businesses would help. Also facilitating a dialogue and contracting work or pilot demonstrations with these companies on city projects could be an opportunity.

Encourage and promote green companies

Fund startups, showcase successes, fund small pilots and technology applicability assessments, vet technologies.

Make green-friendly city bi-laws, Make financial support available for homeowners.

They don't. Governments support the lobby that paid the most, that's why Tesla isn't part of the electric car incentives in Canada. It's never about people and their best interest, it's about the industry and lobby.

Establish City goal posts for greening with goals. Offer incentives and grants for Green innovators. Federal and Provincial governments should offer funding for Green infrastructure and repair of old failing infrastructure like storm sewers that degrade the environment. All initiatives have to be resilient to the climate change challenges that we know we are facing.

Offer subsidized loans to promote electric traction.

Regulation. Federal - rules around product content and minimums for recycled material, rules disallowing the sale products that produced emissions to allow a market to flourish for replacements (i.e. anything with an internal combustion engine from mowers to vehicles) Municipal - rules about land use promoting urban restorative agriculture, rules bout event spaces restricting the use of single-use products

Providing incentives and funding opportunities. Supporting green initiatives. Supporting start-ups in this field.

The federal government should be establishing programs that support segments of the population that are often financially unable to make green improvements. In removing the financial barrier, this will allow greater participation in the green sector by all Canadians.

Open up avenues for private industry to work wth government on creating neighbourhood scaled energy or environmental projects.

break down the silos and open the green space to people not business

First and foremost by ensuring their is a market for the products, whether it be high performance buildings, electric cars, non-plastic containers, PV panels, or any other initiative. Governments role is to pass effective regulations and to help shape behaviour through public education and leading by example.

incentives, support, awareness.

All levels of government play a role in supporting the growth of the green sector in Canada, through legislation, public policy, funding, etc.

Financial incentives. Clear direction about how all levels of government want to proceed in this area. It is not clear to companies and innovators that we are all in with green technologies.

All governments must become consumers of sustainable supplies and services even if it is more expensive. The city must ban all single use plastics and increase taxes to non-sustainable businesses. Charge fees to all for commercial and residential waste removal. Provide incentives to users of sustainable products and services (i.e.: free parking for electric cars). The province needs to enact and enforce waste reduction laws. They need to require all manufacturers and distributors to take cradle to grave responsibility for the products the make and sell. The province needs to bring back and increase tax and other incentives to sustainable businesses and users. The federal government needs to provide tax incentives to sustainable business and reduce taxes on sustainable goods and services.

all levels of government should be protecting green space, affordable housing, transit

Develop a GHG calculator and have it implemented to companies. Companies will have to report all GHG produced. This will drive the use of low emission vehicles and other construction techniques that use less GHG.

Waste is a provincially regulated sector and as such most of the impact that can be done in this area can be positively affected by provincial ministers of environment. City government can assist through

the sharing of its physical spaces that may be underused - these spaces could host micro transfer stations or micro organics processing facilities that turn the organics previously destined for landfill into a soil amendment that can also be used within the urban environment

Federal: Continue to implement the carbon tax Province: Get out of the way of a congestion charge City: Publicize benefits of King st. pilot, focus more on transit and walkable neighbourhoods in planning

Work with the best communicators to encourage a shift in what is important for all of our futures. On a federal level promote Canada to the world and even more so to Canada, on a Provincial level promote local business and make available advise and mentors to help small business reach the next levels. Similarly on a municipal level have even more involvement, aiding in understanding the closest market, specifically for Toronto communication that we are creating on par with any market in the world.

8. What can green industry organizations and stakeholders in Canada do to best support the growth of the green sector in Canada?

available benefits best **Canada** Canadian change cities companies construction costs **Create** doing Educate energy funding government

governments great **Green** groups growth Help implement incentives industries industry Keep need opportunities organizations others parties practices problem programs promote **public** resources sector site small solutions stakeholders **Support** Supporting sustainable technologies waste work

[Most frequently used words: Green, Support]

Attract more customers by providing more value to customers and proving that their business is viable and sustainable.

Clarify our commitment.

Lobby all levels of government. Prove that the citizens do want to change to a circular economy through studies and petitions. Support political candidates who are green.

Providing incentives, resources, and funding opportunities. Supporting green initiatives. Supporting start-ups in this field.

Communication and outreach, partnering with local organizations and municipalities

What is the purpose of 'support the growth of the green sector in Canada?' Our current growth paradigm is part of the problem and so the framing of this question is also a problem. We need to prepare for a low or possibly zero growth future.

Information sharing, awareness raising, connecting stakeholders, identifying and communicating opportunities as they arise.

Be truthful about the benefits & costs of their work/equipment. The industry is rife with gross exaggerations about the dollar savings associated with the work/equipment provided. This has been necessary because the savings tend to be modest and there are no programs to offset the initial costs...

Help you implement small scale, or demonstrations for the above descriptions images of what it could look like.

Must realize that 'green' is an umbrella term that captures what is in reality a variety of industries and sectors. It is unrealistic to expect a 'green sector association' to come to be a singular voice for such disparate industries (think waste management and recycling alongside artificial intelligence companies that make buildings smarter so they use less energy). It is akin to asking the auto sector and fast food chains to come together with a unified voice to support growth in their industries. Rather it may be appropriate for governments to say 'X is the problem we want to solve' and drive themarket to create solutions to solve that problem with funding of pilots, tax incentives (investment) and regulations.

Innovate through industry/university cooperation

look to other jurisdictions within Canada for best practices. Enforce laws/penalties/fines when infractions occur becoming heavy handed if necessary!

Be bold, be loud, be brave!!!

Educate the public to identify the merits of the industry and to get governments on board.

Inter-industry awards; publicity to attract attention of the general public to the organization.

Education and public engagement. Create great websites that really inform people about what's going on, what's available, what communities are doing well in a way that inspires others.

They are very innovative. Canadians have developed lots of high tech to respond to the needs. We do now have the technologies, but we need to use them! To do so, we need the decision makers to believe and understand about the potential for Canadian technologies to return economic vitality to the Canadian economy. Who are the organizations? Who are the stakeholders? Where in Canada? Don't you see what a ridiculous question this is?

continue to work with private public partnerships

Provide incentive within government contracts to support low GHG emissions.

continue to ensure that the public, government and business groups are aware of the opportunities and costs inherent in organic waste management

Consult, publicize benefits of green programs, lobby, implement programs

Promote the creativity and originality that comes from Canada by making available mentorship and advise to running small businesses looking to grow. Canada has so many resources, when combined with as much of the design and fabrication in Canada keeps the most value here. Promote Canadian businesses and give them the tools to scale at their pace to create something sustainable to last generations.

I don't know.

Engage corporate governance for creating green citizenship.

awareness

Make the financial commitment and resources available. It is that simple!

Green Roofs for Healthy Cities, Green Infrastructure Ontario Coalition and its member companies.

Supporting Stakeholders - FedDev, IRAP, OCE, are great supporters from evolving Green Tech Parties like MaRs historically seem to be biased towards some companies while adding walls for others. Utilities and others need to simplify the information collection and distribution

Support the political parties that promise strong support for GHG-reduction programs (not just alternative energy).

Not self promote, stop empty repepptitivr blather. Support veritable truly engaged activities.

Educate the average voters as best as possible so they elect better officials

Combine efforts. Reduce duplication of effort. Mitigate competition by many organizations for the same pools of funding and revenue. Increase partnerships and innovation will increase. Place more emphasis in their work on simple solutions that are easy for people to understand and implement.

push governments to make a decision on technology that is tested and verified.

Keep the conversation open, learn from each other, explore creative solutions and take ownership for implementing those solutions.

Cooperate and be open. Collaboration beats competition if we're to achieve our goals.

Keep talking; keep pushing.

 develop collaborative groups that foster peer to peer collaboration, sharing of knowledge and best practices, and networking - provide one-on-one programming supporting to green sector organizations to help them address the challenges they face

EnerQuality is the market leader in residential green building certification and education.

Build consensus in green industry around desired government policies and program, and clearly iterate recommendations. Communicate the multiple benefits of green industry to the public and politicians. Speak up against short-sighted policy decisions that threaten the future growth of the green industry. Engage with politicians across all parties to make climate change a non-partisan issue.

educate the public on the real costs of pollution.

Promote the inclusion of green alternatives from the top down. Make green choices the norm and not something foreign

By taking examples of what is happening with wood waste being utilized and duplicate this model in all urban cities. This will amount to millions of cubic meters of wood waste being utilized and millions of tonnes of carbon capture.

Create jobs and wealth off of the sustainable energy transition.

Get the word out about which companies are going green and have green incentives. Including small programs, such as stores banning straws ect

Keep all development in Canada to start, see what Europe is doing and not to go near the USA.

Invest

Focus more on specific areas. This might be net zero buildings, mproved facade and building envelope technologies, green construction practices, mass timber construction, prefab construction, etc.

Don't know

Do not promote snake oil and vapourware.

Tell the city to change all 1950 outdated bi-laws, advice city on how to create a financial support system for the homeowners. This will help them to buy more products form the sector.

Find landbases to site and showcase Green Innovations. IE: in 2030 the Tripartite Agreement at the Billy Bishop Airport expires. That site could become a green energy hub. Solar power would be a great use as the site is not overshadowed. The electric bus program just announced should be implemented asap to prevent more diesel pollution.

Do what other countries and cities are doing? : https://www.facebook.com/groups/321889295290210/ Push for regulations restricting wasteful and high emitting products and behaviours

get the word out.

Create networks to allow disparate sectors to work together on larger projects involving multiple facets.

Green party, neighbourhood community orgs.

Embrace change and recognize innovation as an opportunity that is vital for our continued success rather than a regulatory burden.

9. Do you have suggestions on what would help Toronto's green sector become more competitive?

Above available better businesses carbon change City companies Competitive countries current drive encourage example good government greater **Green** human **incentives** initiatives Invest local low **market** markets **need** new operations Order people place products public quality rid right sector social solutions support Tax technology think Toronto Work

[Most frequently used words: Green, Incentives, Tax, City]

Support clearer government action, creating markets for better products. The impact is clear in those jurisdictions that do so. For example, there are 6 window companies in Metro Vancouver manufacturing certified Passive House windows and doors, but none in Toronto. Many other countries are producing high performance building components and other items. If Canada wishes to maintain its manufacturing base, our manufacturers need to develop such products before imports capture the market.

Focus on offering healthier and greener options to customers without adding costs.

Tax reductions and incentives

Regulate industries that 'compete' by externalizing the cost of pollution. And not just with a carbon price - by disallowance.

Develop strong business cases for green sector businesses versus the current operations, especially in areas like energy where the upfront cost is often higher but the savings over time are much greater.

Competitive with who? And for what purpose? We actually need to encourage collaborative practice and not competitive practice. This question is framed from the standpoint of status quo market efficiency thinking. We need to move beyond this frame towards market effectiveness where specific economic, social, and environmental impacts are rewarded with incentives (e.g. reduced taxation rates, greater social license to operate, reputational enhancement, etc.) Regulations to control and assure quality work/equipment are absolutely necessary before any program is launched. Program must also be fully funded to attract participants and quality contractors.

This question assumes 'technology' is the answer (e.g., a better way to filter out air pollutants). I'd argue that instead we should be looking at 'need' -- does society really 'need' the particular 'thing' and if the answer is still 'yes' then how do we make the 'thing' with lesser impact? Green sector initiatives could fund work on both of these questions.

I think its important to put in the right market signals to induce the right decisions. I think the carbon tax put in place by the feds is an example of the type of signal the market needs to drive the right behaviour. I would encourage the city to consider the right combination of inducements and penalties to drive demand for 'green' solutions. That combination could be inducements to use green building methods (ie accelerated permitting of net zero in-fill buildings, modification to codes to accelerate adoption of efficiency technology but also penalties that reduce waste to landfill and further drive decision making to low carbon alternatives.

Tax car and truck traffic; encourage walking, public transit and 2- and 3-wheel vehicle use; replace old electricity and water infrastructure

Check out what's done in other countries - especially Singapore!

Get rid of the current bureaucracy.....follow the lead of Storm Cunningham.

Help build the sector by only using green alternatives for all government initiatives and operations. Lead by example.

Invest in a diversity of ideas and a diversity of people as both volunteers and paid employees. If one idea doesn't work well, others will be there to take its place. More diverse people have more diverse ideas.

More funding for new green economy companies. Celebrate these new companies and ask them what they need to succeed.

The residues generators, management and recycling companies to get together around pyrolysis for giving plus values to these residues that have no place to go right besides being burn or going to landfills. This is worth millions of dollars every month.

Do waaay better research than this. Unless, of course, this is window-dressing that you can point to later on and say, 'See? We consulted the public.'

Order more electric buses, GoTrains, subways, garbage trucks...

be forward thinking

By providing incentives to companies to reduce GHG they will have to adapt their practices and make them a global leader.

As I said above, the sharing of city owned spaces that are currently under utilized together with any privately owned spaces that may be available in order to allow green enterprises to prototype their solutions and equipment, but also to locate micro scale operations.

Increase the budget and staff of the Chief Resilience Officer

Promote original, world class businesses on a global, national, provincial and local level. Make available mentors and advisors to aid small, nimble, original businesses to reach as many markets as possible.

invest. More investment into alternative solutions, look across the border for solutions that work in other countries. There are better solutions out there but a reluctance to change and inefficiency in governance is preventing our progress.

Explore and learn from best practices. Adopt new approach to addressing landfill stress and environment impacts. Engage children for developing human capital for sustainable human resources.

its not a competition, green initiatives are a necessity, and all levels of government must do as much as they can.

Levy taxes on unsustainable products and perhaps penalize larger homes that are built with poor quality and encourage smaller homes with better quality products.

Make the financial commitment and resources available. It is that simple!

Allow there to be a forum for education and information that is not restricted by individual or group policy

Get rid of the current provincial government. Support the concept of a CO2 mitigation Crown Corporation.

Demonstrated successes, regulations that guide social milieu (Eg ban single use plastics, watch culture adapt!)

A local economy that will support the growth and scaling of products and services to be able to compete globally

Term limits on city Councillors (Maximum 2 terms). End career city Councillors who do nothing but serve themselves and their next term of office. This will likely increase mandate-driven election platforms and less cult of personalities. It also increases the likelihood that the improved system would attract candidates with the political courage to make the tough decisions that need to be made in Toronto to truly act on climate change.

listen to us.

Policy developments that require the use of green technology or mandate low-carbon construction of new buildings or retrofits, in order to align with TransformTO's 80% GHG reduction by 2050.

Support the entrepreneur and take more risks.

Tax incentives for green; tax dis-incentives for anything else.

Green sector sales are typically more from exports more so than local procurement. green sector can be more competitive if sales can be increased in local and home markets.

Create the conditions for innovation by accepting and then managing perceived or real risk.

Invest in research and development as well as training to enhance productivity and innovation.

Support for Toronto's clean tech companies! Expedite the approvals process; encourage access to city infrastructure; act as a reference for other municipalities

Funding for small company's .

A carbon price.

Money

Tax incentives, grants and free development test drives - benefits to find glitches with the technology and also benefit to the cities that adopt the free trial. Have test zones up and running and showcase them to the world, other than America.

Get rid of Doug Ford

Having city-backed support is a good start. Tax subsidies is another good incentive. Facilitating dialogue between businesses in speciality areas would also be good.

See above comments

Above

Provided welcoming bi-laws for the sector. Make necessary changes in the city own properties to start. Make TCH and TTC make a green-friendly change.

There is no competition. If it's not done, not a single human being will survive. Because people think of it as a competitive market, we are all doomed.

Make greening a priority across all City Departments. Make health an foundational part of the efforts. Competitiveness is a misguided goal. Sustainable and enduring businesses creating greater public good is preferable and innovative.

Do what other countries and cities are doing? : https://www.facebook.com/groups/321889295290210/

Tax incentives/grants for green businesses, many of which face low profit margins as 'eco' is often into as interpreted by the public as not having expenses or bills to pay.

get rid of the levels of government that over control because of safety, and other concerns that we don't need. Get rid of the helicopter governements-same as the helicopter parents.

10. Please provide any additional comments or suggestions on what you feel is needed to support the growth of Toronto's green sector.

	Buildings	carbon	city	CO2	different	doing	done	econon	nic econ	omy
	government	t gre	en	impor	tant level	ls need	d one	Please	products	sector
support time Toronto vision work										

[Most frequently used words: Green, Toronto]

More money obviously.

Tar and Feather Doug Ford and deposit him in the parking lot of GM and invite the parents of Autistic children to visit him in the parking lot.....

Again see above comments

We can grow it if we provided creative financial support for the end user. Then they will buy the products. Please Please change old city outdated di laws

Better education, and more alternatives to the existing paradigm that is killing everyone, regardless of how much good intention an individual may have.

I am concerned that health has not been included in the Green scope vision.

Do what other countries and cities are doing? : https://www.facebook.com/groups/321889295290210/

Please consider urban restorative agriculture as an important aspect of a green economy, food security, and carbon sequestration

Involvement and participation from the general public is important for companies/products/services in the green economy to thrive.

I've recently noticed more campaigns from Live Green Toronto on the TTC and in other public spaces. I think campaigns like this encouraging or promoting the green sector would be helpful in reaching and educating a large audience.

Again, the working assumption behind this survey is that Toronto needs to 'support the growth of the green sector'. This framing is problematic. We need to support the transition of ALL business towards a strongly sustainable vision of the future. We need to establish the conditions for flourishing at all levels - economic, social, and environmental.

A provincial Crown Corporation is the ONLY way to make something happen quickly and not be interrupted by provincial changes in government!

Political will for a different, less environmentally impactful way of operating our society. Funds to make that new vision possible. Good luck! Count me in to support this important work!

Producers of carbon emissions must pay for the development and promotion of replacement green technologies

Vote for Jennifer K.

I'd love it if people were aware of what other cities are doing. We live in a bubble here and think what we're doing or dealing with, no one else has experienced/done. Look to global inspiration, which also helps bring in our diverse population.

We need to put together the decision makers (politicians, representatives, policy makers) in the government sectors (different levels) in direct contact with the industrials in the green economy so that they fully understand their options, the return on investment for the Toronto area, the jobs and economic potential return. Pyrolysis/torrefaction is one option for those residues that 'are non economic to recycle right now' or 'don't have technology to transform them'. It is reliable, economic, generates renewable energy, renewable products that can reach a variety of markets.

If this is the quality of the work being done to support Toronto's green sector, we're doomed.

Supplier fairs or catalogues -- opportunities to promote our services to green minded clients without the overwhelming expenses of larger trade shows

As an NGO we work with industry and government to transform our buildings, enabling Canadians to deliver high performance buildings. We have seen substantial market transformation in some locations and understand how such transformation can be supported. We would be happy to follow up with the agency evaluating implementation strategies to drive economic development.

Keep pursuing the 40% tree canopy goal.

This is a great start, asking for our suggestions. Keep the lines of communication open.

Food waste can be recyled and so aerosol cans. City of Toronto should not responsibility of lumping and dumping for incineration plant that cost billions of dollars to make and expensive to operate. Initiate engagement of communities to recycle on-site and reward the stakeholders.

End disposable plastics

Make the financial commitment and resources available. It is that simple!

Reduction of red tape. Our Company has built a Green solution for the City of Toronto (all City owned Buildings) but we have not been able to promote what we did because of time commitments to deal with red tape and change. I believe other organizations have also been met with this issue as well. It becomes cost prohibitive and a time allocation issue. We have found that the time it takes to bring a product from successful pilot to production is great and have now found it better to work with other parties outside the City of Toronto as we come across too many move forward issues that are not related to the success of our solution.

Mandate CO2 labeling on containers of fuel that create CO2 when used. ie: When used, this tank of propane will produce X kgs of climate-changing carbon dioxide (CO2). On gas pumps: Each litre of regular gasoline produces X kgs of climate-changing carbon dioxide (CO2). etc. Perhaps mandate that natural gas & heating oil bills identify how much CO2 was produced by the fuel burned/replaced for the current bill...

we have had a few meetings, I have made a few presentations, and still NOTHING is being done.

Define the roles and responsibilities of different actors (e.g. government, builders, certifiers, manufacturers) and create the partnerships that leverage each one's strengths.

More awareness of the significance of the Green sector in Toronto's economy, and the potential for further growth, would be very helpful.

Support and encouragement from all levels of government

Courageous politicians