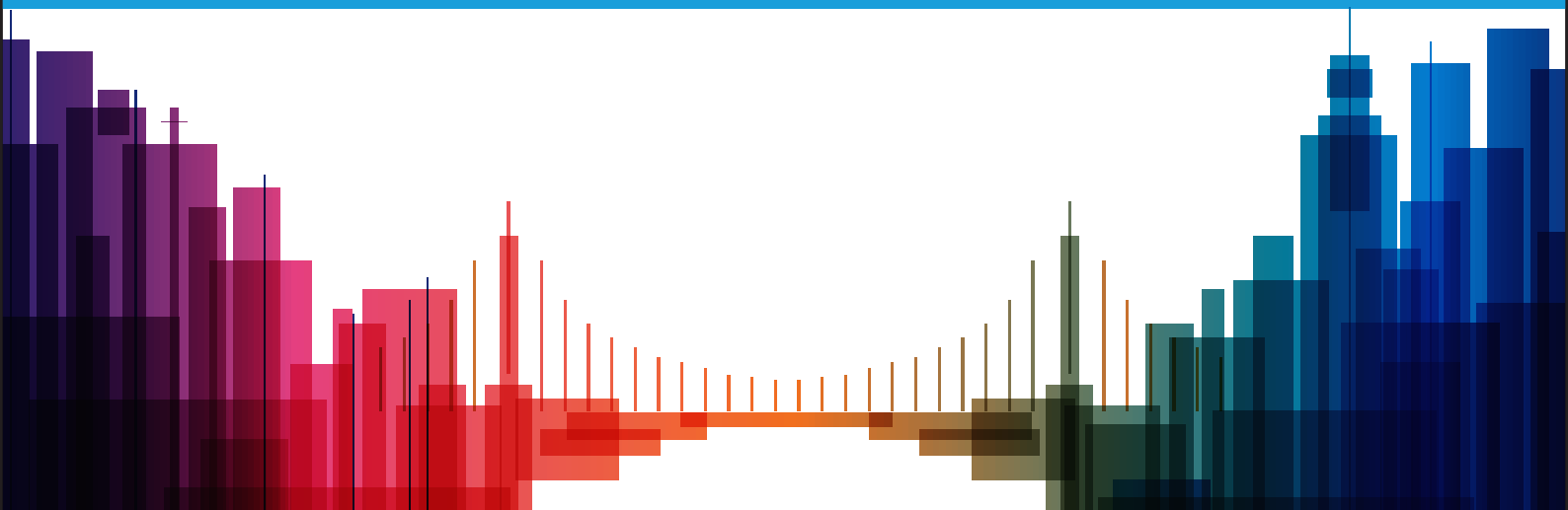


Circularity to promote local businesses and digitization

Case study of the U4SSC A guide to circular cities

June 2020



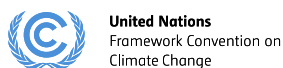
Convention on Biological Diversity



Food and Agriculture Organization of the United Nations



Empowered lives. Resilient nations.





Case study: Circularity to promote local businesses and digitization

June 2020

Foreword

This publication was developed within the framework of the United for Smart Sustainable Cities (U4SSC) initiative.

Acknowledgments

The case study *Amsterdam: the circular district of Buiksloterham* by Nikolaos Kontinakis. The case study *Dubai: circular ICT devices and infrastructure* was developed by Okan Geray. The case study *Toronto: circular procurement framework* was developed by Annette Synowiec, with additional contributors Kathy Raddon and Dr Kamara Jeffrey.

The Amsterdam and Toronto cases were reviewed by Okan Geray.

Okan Geray wishes to thank the U4SSC management team: Mr Nasser Al Marzouqi (U4SSC Chairman), Mr Abdurahman M. Al Hassan, and Mr Paolo Gemma (U4SSC Vice-Chairmen) for their assistance and contributions.

The author also extends his gratitude to the contributing organizations, along with their representatives: Mr Oliver Hillel from the Convention on Biological Diversity (CBD), Ms Lucy Winchester and Ms Vera Kiss from the Economic Commission for Latin America and the Caribbean (ECLAC), Ms Simone Borelli from the Food and Agriculture Organization (FAO), Ms Cristina Bueti and Mr Chris Ip from the International Telecommunication Union (ITU), Ms Iryna Usava from the United Nations Development Programme (UNDP), Mr James Murombedzi from the United Nations Economic Commission for Africa (UNECA), Mr Guilherme Canela from the Regional Bureau for Sciences in Latin America and the Caribbean of the United Nations Educational, Scientific and Cultural Organization (UNESCO), Ms Martina Otto and Mr Garrigan Curt from United Nations Environment (UN Environment), Mr Matthew Ulterino from the United Nations Environment Programme Finance Initiative (UNEP-FI), Mr Motsomi Maletjane from the United Nations Framework Convention for Climate Change (UNFCCC), Mr Andre Dzikus, Ms Tania Lim, Mr Jean Yves and Robert Lewis-Lettington from the United Nations Human Settlements Programme (UN-Habitat), Mr Mark Draeck, Ms Katarina Barunica Spoljaric and Mr Nicholas Dehod from the United Nations Industrial Development Organization (UNIDO), Mr William Kennedy from the United Nations Office for Partnerships (UNOP), Ms Soumaya Ben Dhaou and Ms Judy Backhouse from the United Nations University – Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV), and Mr Alexander Baklanov from the World Meteorological Organization (WMO).

The opinions expressed in this publication are those of the authors and do not necessarily represent the views of their respective organizations or members.

ISBN: 978-92-61-31251-0

© CBD, ECLAC, FAO, ITU, UNDP, UNECA, UNECE, UNESCO, UN Environment, UNEP-FI, UNFCCC, UN-Habitat, UNIDO, UNOP, UNU-EGOV, UN-Women and WMO.

CONTENTS

Foreword	ii
Acknowledgments	ii
List of Figures	iii
Case Study 1 – Amsterdam: The circular district of Buiksloterham.....	1
Introduction	1
Promoting circularity	1
Conclusions	2
References.....	3
List of discussion partners/interviews	3
Case Study 2 – Smart Dubai: Circular ICT services and infrastructure	4
Introduction	4
Results.....	6
References	8
List of discussion partners/interviews	8
Case Study 3 – Development of a circular procurement framework city of Toronto	9
Introduction	9
Promoting circularity	10
Results.....	13
References.....	15

List of Figures

Figures

Figure 1: Digital Transformation Journey of Dubai.....	4
Figure 2: Operational Efficiencies Overview.....	6
Figure 3: Framework Implementation Timeline.....	12

AMSTERDAM



Case Study 1 – Amsterdam: The circular district of Buiksloterham

Author:

Nikolaos Kontinakis

Introduction

Nowadays, cities around the world are facing several challenges. Amsterdam, the capital of the Netherlands, is no exception: rapid urbanisation is adding pressure to create more liveable cities, to manage natural resources more efficiently whilst protecting the environment, and to meet the challenges of climate change. Increasingly, cities are recognising the importance of circular economy as a means of addressing these issues and making cities healthy and enjoyable places to live.

Since 2015, Amsterdam has been discovering the opportunities for a circular economy in the city and metropolitan area alike. The municipality of Amsterdam has implemented two programmes geared towards the circular economy and thus far, over 70 circular projects have been completed. These efforts have been recognized and evaluated in 2018, with the findings presented in *Amsterdam Circular: Evaluation and Action Perspectives*. Two important advantages of the circular economy are its affordability and its profitability. Still, the key stakeholders (governments and businesses) are in the process of taking the initial steps towards the transition to a circular economy. As a forerunner of this transition, Amsterdam now has the task of taking this transition to the next stage by scaling circularity and standardising it. To do so, there is a need to structurally share the knowledge and experience from the first years of experimenting and install a culture of cooperation. This way, we could learn from the lessons and recommendations founded in the evaluation of the first three years of Amsterdam Circular, summarized in action points that could serve as a guide to other cities contemplating a transition to a circular economy.

There are five existing key municipal policy instruments: knowledge instruments, public procurement, legislation, spatial planning and business support – these constitute the most prominent forms of public intervention to support the circular economy.

It is important to emphasize that the transition to a circular economy is by no means an easy task and, above all, will require municipalities to harness available governance instruments, the power and technologies of urban innovation and an engaged business community.

Promoting circularity

Bringing circular economy into the ICT industry effectively targets two major fields: products and equipment (waste and consumption), and internal operations and networks (energy and data). The successful implementation of European Commission initiatives starts by engaging with suppliers, a reality that has once more been confirmed by the project Buiksloterham.

The district of Buiksloterham, on the northern bank of the IJ waterway, once the site of Amsterdam's most polluting industries, is being transformed into a sustainable area in which to live and work.

Over the coming years, Buiksloterham will develop into a sustainable district, based on the principles of a circular economy. It will be up to the project partners in Buiksloterham to determine the particular issues that need to be solved.

The City of Amsterdam is one of the signatories of a manifesto that has been drafted to emphasize the circular ambitions of the project. Over the next 10 years, Buiksloterham will be transformed into a circular neighbourhood where products and raw materials are re-used as much as possible.

Conclusions

The past three years of circular economy action in Amsterdam have showcased the importance of local policy in supporting circular economy activities. Indeed, policy can be the support that circular projects need to transform ideas into practice, or scale up from anecdote to standard.

Key lessons learned along five municipal policy instruments: knowledge instruments, public procurement, legislation, spatial planning and business support are as follows:

1. **Knowledge instruments** are developed to disseminate insights about the circular economy through research to the business community and residents of the city. By means of knowledge instruments, the municipality can increase insights into, and awareness of, the circular economy among its population.
2. **Circular public procurement** is the process of acquiring products or services with a view to optimally (re-)using products, parts and materials during and at the end of their lifetime. By means of circular procurement, the municipality can use its purchasing power to influence the market and so stimulate the production of circular products and the delivery of circular services.
3. **Legislative instruments** are obligations that the municipality can formally impose on itself, the market and consumers in the form of, for example, standards or bans. By means of legislation, the municipality can use its legal authority to require or prohibit more or less circular practices.
4. **Spatial planning instruments** influence the physical environment by determining the amount and function of space, what materials are used, as well as its physical character. By means of spatial planning, the municipality can divide and classify the physical environment in a way that promotes circular resource management.
5. **Business support** instruments assist companies with financial and non-financial resources such as grants, guarantees and technical advice. Through business support, the municipality can assist (small- and medium-sized) businesses that have limited internal capacity and resources to launch circular products or services, or those that need high-risk investment.

References

- Amsterdam Institute for Advanced Metropolitan Solutions, Urban Living labs: a living lab way of working, 2017, at https://www.ams-amsterdam.com/wordpress/wp-content/uploads/AMS-Living-Lab-Way-of-Working_small.pdf
- Metabolic, Studioinedots & DELVA Landscape Architects, Transitioning Amsterdam to a Circular City: Circular Buisloterham, Vision & Ambition, 2017, at https://www.metabolic.nl/wp-content/uploads/2015/07/CircularBuksloterham_ENG_FullReport.pdf
- Gemeente Amsterdam & Metabolic, Amsterdam Roadmap Circulaire Gronduitgifte, 2017 at https://assets.amsterdam.nl/publish/pages/851937/roadmap_circulaire_gronduitgifte_def_compressed.pdf
- Gemeente Amsterdam, Gemeentelijk juridisch instrumentarium circulair bouwen en slopen, 2017, https://assets.amsterdam.nl/publish/pages/853809/amsterdam_circulair_leren_door_te_doen.pdf
- European Commission, Public procurement for a circular economy: Good practice and guidance, 2017, at http://ec.europa.eu/environment/gpp/pdf/cp_european_commission_brochure_en.pdf

List of discussion partners/interviews

- Interview: circularamsterdam.com at <https://journey.circularamsterdam.com/circularamsterdam#161072>
- Partners: Circle Economy, Copper8, Amsterdam Economic Board, Amsterdam Smart City and others

Case Study 2 – Smart Dubai: Circular ICT services and infrastructure

Author:

Dr Okan Geray

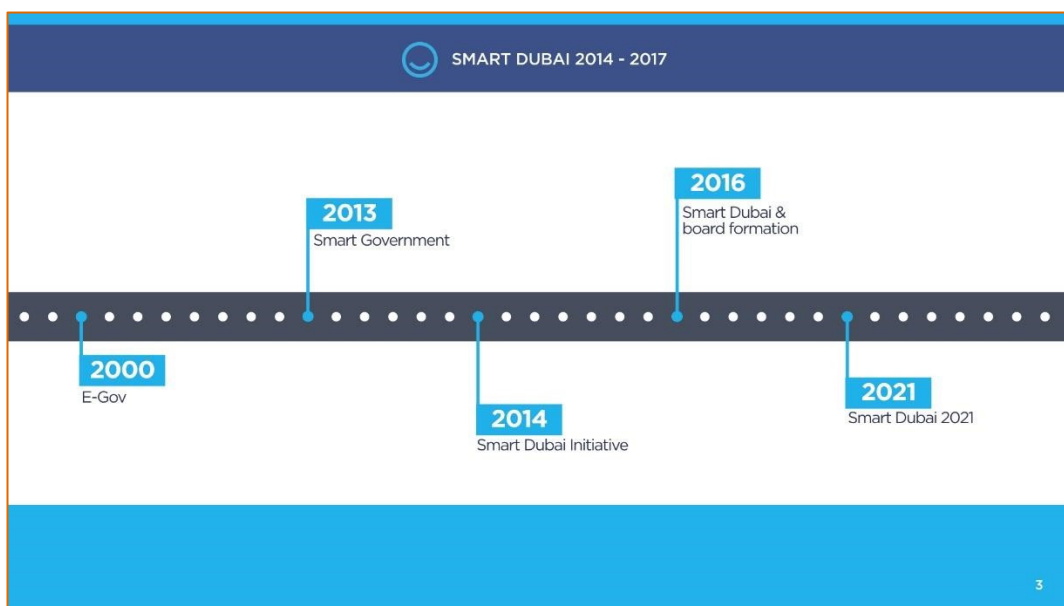
Introduction

Background

Dubai is one of the seven Emirates of the United Arab Emirates (UAE) and is a highly vibrant city with a population of approximately 3 million people. Dubai has set itself on an ambitious course through a rapid and successful transformation in the economic and social sectors. Over the last 40 years, Dubai has witnessed a transformation from a sleepy pearl diving village into one of the most visited global cities and home to the world’s busiest airport, the 9th largest port in the world and the world’s tallest building.

Dubai has experienced significant economic growth over the years and the city acts as the leading economic hub in the region, having undergone successful economic diversification. Sectors such as trade and logistics, tourism, financial services, retail and real estate have played critical roles in Dubai’s economic achievements and are complemented by a highly modernized urban infrastructure. Dubai is currently undergoing its third generation of digital transformation and can be credited for inspiring public acceptance and confidence in the use of ICTs in all spheres of life.

Figure 1: Digital Transformation Journey of Dubai



In this context, the Smart Dubai initiative was born in 2014 from an idea of His Highness Sheikh Mohammad Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai. The vision of Smart Dubai is to leverage on the city’s inhabitants and make Dubai the happiest city on earth. In line with its vision, the Smart Dubai initiative has structured its strategic approach to embrace the latest technology innovation that will make urban experience seamless, safe, personalized and efficient, and delivering enhanced quality of life to contribute in making Dubai the happiest city on earth. The Smart Dubai initiative plays a key role in guiding and enabling the city’s ongoing digital transformation across all sectors.

Challenge and response

Dubai strategically relies on digital transformation and the 4th Industrial Revolution (4IR) leading-edge emerging technologies in achieving its smart city transformation. Such large-scale transformations require ICT implementations at the city level encompassing public and private sectors and tend to require substantial expenditure, unless planned and managed carefully. In this context, Smart Dubai has strategically centralized and shared targeted ICT services and infrastructure provisioning while decentralising the innovation related to core business aspects.

Smart Dubai Capturing Cross-entity Synergies: Common digital transformation needs in Dubai public sector entities provided a significant opportunity for achieving operational efficiencies. Ample cross-entity synergies in data management and IoT, blockchain platforms, AI based systems, digital identity and payment, various back-office functions compelled Smart Dubai to embark on a broad, government-wide, and in some cases even city-wide, approach for implementing circular ICT services and infrastructure. This has avoided the need for various entities to fund and operate their own similar ICT services and infrastructures separately.

As a result, Smart Dubai has implemented and delivered more than 60 circular (in the shared sense) ICT services utilized by more than 50 entities in Dubai. This has allowed Smart Dubai to achieve significant cost savings at the public sector, as well as at city level, due to the efficient use of digital assets.

This smart transformation approach incorporates city digital infrastructure under the city assets and products and encompasses sharing as the action item as defined within the U4SSC ‘*Guidelines on strategies for circular cities*’.

Promoting circularity

Vision and content

The main strategic goals of Smart Dubai circular ICT services and infrastructure are to:

- provide customer-focused agile services by capitalising on ICT-related synergies;
- achieve operational efficiencies and higher returns on ICT investments; and
- significantly reduce the negative environmental impact.

This is very much in line with the overall vision and strategy of Smart Dubai. In fact, Smart Dubai strategy explicitly intends to achieve happiness at the city level as a social impact (hence the customer-focused aspects and customer satisfaction), operational efficiencies as an economic impact (hence the sharing and expenditures reduction for ICT) and positive environmental impact (hence the consolidation and reduction in ICT infrastructures). This strategic alignment has been crucial throughout the implementation of Smart Dubai circular ICT services and infrastructure.

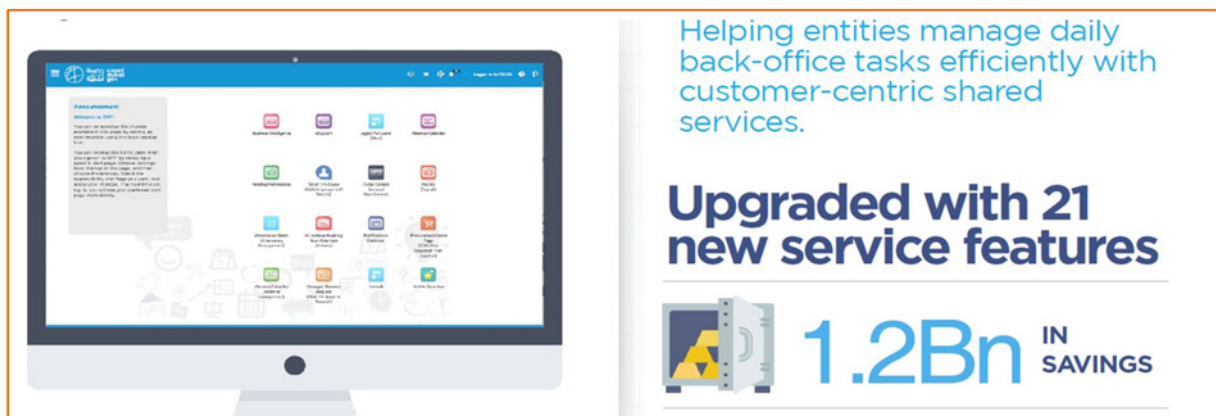
Emerging technologies were highly critical and formed the founding blocks of Smart Dubai circular ICT services and infrastructure.

Results

The benefits and impact of Smart Dubai circular ICT services and infrastructure can be summarized as follows:

- **Focus on core business:** Since Smart Dubai has taken the responsibility of designing, implementing and operating circular ICT services and infrastructure, Dubai government entities were relieved to focus on their core businesses and easily adopt 4IR emerging technologies.
- **Cost savings through operational efficiencies:** A year-long study commissioned by Smart Dubai has quantified the economic impact of its circular ICT services and infrastructure for the Dubai Government. A total of USD1.2 billion in savings were achieved in just over a decade. The report found that the Government of Dubai has saved 5.4 dollars for every 1 dollar spent for its circular ICT services and infrastructure. This has allowed Smart Dubai to continue its circular approach in the medium to long term.

Figure 2: Operational Efficiencies Overview



- **High levels of service delivery:** Smart Dubai constantly enhances its circular ICT services and infrastructure with new features to meet public sector entities' needs and expectations. Smart Dubai provides its circular ICT services through strict Service Level Agreements (SLAs) to public sector entities. An availability of 99.95 per cent was achieved for its circular ICT services in 2017 and support calls were closed within SLA compliance target times, resulting in more than 80 per cent customer happiness scores.
- **Enhanced Decision Support & 4IR Capabilities:** Government-wide data stored in centralized systems and repositories has enabled advanced analytics and business intelligence for various central government entities responsible for government-level policy making and decision support. It also allowed the utilisation of advanced 4IR capabilities such as data science, AI and blockchain, due to their flexible design.
- **Public Sector Policies Implementation:** Circular ICT services also enabled the easier implementation of widely applicable public sector policies over the years. In the absence of these services, each entity would have to expend significant efforts and resources to their individual systems for policies compliance, resulting in a significant replication of efforts.
- **Knowledge sharing as a circular activity across the public sector:** Smart Dubai circular ICT services provided a concrete platform for sharing and exchanging ideas across the public sector. Entities shared their business requirements and needs among each other openly. An innovation idea belonging to one entity when implemented became available to all the other entities. Collective knowledge capital was enriched at the public sector level.
- **Scalable and flexible expansion:** Smart Dubai circular ICT services are unified and centralized solutions used by several government entities by their very nature. They are designed to accommodate future expansion in terms of economies of scale (adding new entities) and also in terms of economies of scope (implementing additional new services).
- **Enhanced Resilience:** The centralized nature of public sector circular ICT services and infrastructure enabled disaster-recovery and resilience aspects to be implemented in a carefully planned manner. Smart Dubai circular ICT services and infrastructure are resilient by design, incorporating features like redundancies and automatic fail-over mechanisms.
- **Reduced environmental impact due to consolidation:** The circular approach undertaken by Smart Dubai has circumvented the need for public sector entities to replicate ICT infrastructures in their own premises. Consequently, ICT services and infrastructure have been consolidated significantly due to economies of scale and also scope. Furthermore, the total amount of ICT equipment (IT assets such as network equipment, server equipment) has decreased considerably (resulting in cost savings). The impact has also been in CO₂ reductions due to considerably reduced and consolidated ICT equipment. Hence, these services have achieved positive environmental impacts and significant benefits in green computing.

References

- Smart Dubai Achievement Report 2014-2016
- Smart Dubai Government Lean Administration Support Services Project Reports 2016
- Smart Dubai Blockchain Strategy 2017
- Smart Dubai AI Roadmap 2017
- Smart Dubai Paperless Strategy 2018

List of discussion partners/interviews

- Dr Aisha Bin Bishr, Director General, Smart Dubai Office
- Younus Al Nasser, Assistant Director General, Smart Dubai Office, Chief Executive Officer, Dubai Data Establishment
- Wesam Lootah, Chief Executive Officer, Smart Dubai Government Establishment

The author would like to thank several members of Smart Dubai Office and Smart Dubai Government Establishment for commenting, and also for providing data.

Case Study 3 – Development of a circular procurement framework city of Toronto

Lead author: Annette Synowiec

Additional authors/contributors: Kathy Raddon; Dr Kamara Jeffrey

Introduction

Background

Toronto is Canada's largest city, the fourth largest in North America, and home to a diverse population of about 2.8 million people. Toronto has an aspirational goal of being a Circular City with a zero-waste future as outlined in the City's Solid Waste master plan, approved by Toronto City Council in July 2016 titled the *Long-Term Waste Management Strategy* (Waste Strategy).

The Waste Strategy recommended the creation of a new unit within Solid Waste Management Services Division, called the Unit for Research Innovation and a Circular Economy (UFRICE). In 2017/2018, an initial task of the new unit was to establish a Cross Division Circular Economy Working Group (CDCE) and to develop a city procurement strategy to drive waste diversion through the circular economy, in cooperation with the City's Purchasing and Materials Management Division.



Challenge and response

The need for a comprehensive 'Waste Strategy' was identified in 2013, when the Solid Waste Management Services (SWMS) Division provided the Council's Public Works and Infrastructure Committee with a status update of the 2004 'Target 70' plan initiatives. The update explained why the goal of 70 per cent diversion from landfill was not achieved, pointing in part to changes to waste composition and measures used in the targets. For example, the light weighting of packaging and a decline in newsprint resulted in fewer tonnes of waste entering the recycling stream, even though the volume of recycling (and costs of recycling) remained high. To establish new optimistic, effective and achievable waste targets, SWMS considered the current state, including the limitations to recycling, such as high processing costs, high contamination rates and challenges around implementing programmes that include the multiresidential and commercial sectors.

The two guiding principles of the Waste Strategy are: to consider options that support waste reduction, re-use, recycling and recovery before final disposal; and to develop policies and opportunities for a close working relationship. The development of the Waste Strategy sets a course to grow beyond service delivery for waste collection, processing and disposal and to take a leadership and advocacy role in working with other municipal, provincial, federal and international stakeholders to support a shift towards a circular economy.

Introducing circular procurement to the City's purchasing processes follows the waste strategy's emphasis on the waste hierarchy (re-use/reduction before recycling) and complements the Purchasing and Material Management Division's (PMMD) Supply Chain Management Transformation Program. Toronto's circular procurement initiatives have been directed by the city's Government Management Committee (GMC) and in May 2018, staff reported back to the GMC to provide the informational report *Implementation Plan and Framework for Integrating Circular Economy Approaches into City Procurement Processes to Support Waste Reduction and Diversion (Framework)*. The Framework establishes goals, objectives, measures and a timeline for piloting circular procurements. In November 2019, a mid-project report will be brought to the City Council and a final report that makes recommendations for a Citywide Circular Procurement Policy is expected for June 2021.

Promoting circularity

Vision and content

The above Framework will be used to leverage the City of Toronto's significant purchasing power (approximately 2.055 billion Canadian dollars annually in 2017) to drive waste reduction, economic growth, and social prosperity through a circular economy approach. It aims to develop an evidence-based and measurable circular procurement policy.

The Framework, which will be tested through pilots, works to enable the City to achieve the following circular economy goals:

- To increase the amount of goods and services that are regenerative by design, have lower life cycle greenhouse gas emissions, are less toxic, and rely less on raw material extraction/consumption.
- To increase the number of city contracts that are procured through a process that considers full value, life cycle impact including greenhouse gases, resource potential, and maximum utility of goods and services.
- To introduce the requirement for the re-examination of city contracts from a circular economy lens prior to issuing solicitations.

The city has a history of social, economic and environmental procurement policies, including the city's Environmentally Responsible Procurement Policy (1999), Purchase of Garments and Other Apparel from Responsible Manufacturers (no-sweatshop) Policy (2008), and most recently, Social Procurement Program (2016). The implementation of the Framework supports several city-wide strategies that aim to enhance city social, economic and environmental outcomes, including:

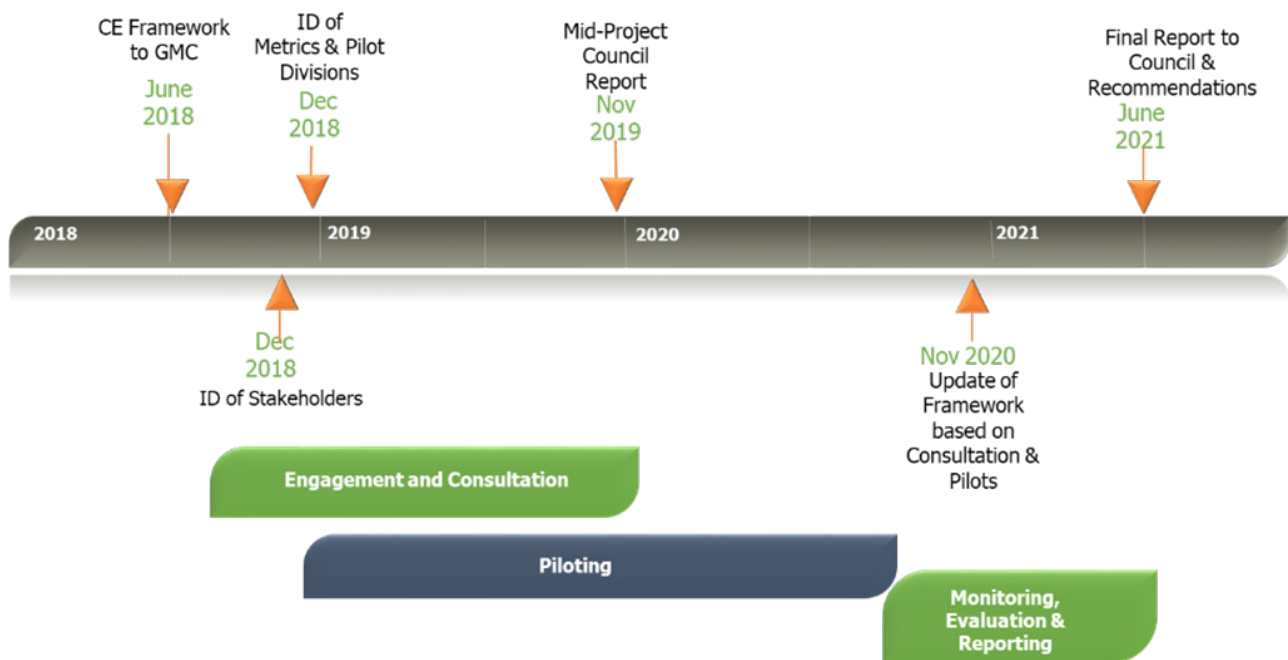
- *TransformTO*: which identifies the City's greenhouse gas emissions reduction targets (i.e. 80 per cent of 1990s levels by 2050) to improve health, economic growth, and improve social equity.
- *City of Toronto Consolidated Green Fleet Plan 2014-2018*, which identifies a number of circular targets and actions, such as 4.1A, 'Purchase, lease or otherwise obtain the most fuel-efficient vehicles where appropriate for the City operations, while considering lifecycle cost of the vehicle'.
- *Toronto Strong Neighbourhood Strategy 2020*, which identifies Action #70, 'Invest in green jobs and a green neighbourhood' under the broader strategic theme 'Create a cleaner, healthier environment'; and,
- *City of Toronto Strategic Actions 2012-2018*, which identify 'Environmental Sustainability' and 'Fiscal Sustainability' as the strategic themes.

Circular procurement will also increase the city's resilience and control its responses to global events such as the international decline in traditional markets and profitability across the paper products and packaging recycling industry. Circular economy procurement integration can help the city mitigate risks associated with the end-of-life management of goods (due to changes in manufacturing and consumer behaviour, technical challenges and decreasing demand for recycled material).

Implementation

The Framework is being implemented through pilot procurements, as described in the May 2018 report to GMC. Both Divisional (SWMS or other City Division-related) and Corporate (Citywide) pilot procurements will determine how changes to solicitations can meet the objectives outlined in the Framework.

Figure 3: Framework Implementation Timeline



Framework implementation and procurement pilots will be supported through the following:

PMMD and the Supply Chain Management Transformation Program:

The Framework will be implemented in conjunction with PMMD's Supply Chain Management Transformation Program, which includes a process of implementing the Strategy for Category Management and Strategic Sourcing. Circular economy integration into procurement processes can help send harmonized messages up and down the supply chain concerning the value of resources, including incentives for using waste previously requiring disposal as material for new production cycles.

Cross Divisional Circular Economy Working Group (CDCE):

The CDCE is led by SWMS and includes seven other city divisions: Purchasing and Materials Management; Transportation Services; Toronto Water; Parks, Forestry & Recreation; City Planning; Environment & Energy; Facilities Management; and Economic Development & Culture. An initial step in the formation of the group was to build an understanding of the circular economy and explore what could be integrated into the procurement processes at the city. The group discussed solicitations that had previously been

issued and contracts already in place to discover examples of existing circularity. For example, the terms and conditions in a contract for the provision, delivery and servicing of garbage and recycling bins include elements of circularity with 10-year extensive warranty requirements, service requirements for the repair of bin lids, wheels and lift bars, bin redeployment, as well as re-grinding and recycling non-redeployable bins for use in the manufacturing of new bins (thereby off-setting the quantity of virgin resin required).

Future Potential working relationships:

A Vendor Engagement Package is being prepared as the next step in the process of implementing the Framework in order to build capacity among the city's current and potential vendors to respond to circular contract solicitation documents. The creation of such a package will be a cooperative undertaking with leaders in the private sector, who could also provide information to the City about the feasibility of circular solicitations. The City is exploring the potential to share this work through pitching the creation and testing of the Package through the Ellen McArthur Foundations CE100 membership. Toronto is the first Canadian city to join the Ellen McArthur Foundation CE100 network.

Results

The City of Toronto's cooperative work has resulted in a Framework that outlines clear principles, goals, and objectives for circular economy procurements and sets up the opportunity to further realize the city's circular economy procurement potential through pilot projects.

These six core principles will guide the procurement pilots:

1. Mitigate climate change and achieve a resilient, low-carbon future, considering both operational and life cycle emissions, and advancing community resilience in alignment with the city's climate strategy: TransformTO.
2. Minimize the full life cycle impacts and maximize the full utility of goods and services.
3. Achieve aspirational goals of zero waste, and treat any remaining waste produced that cannot be re-used or recycled as resource that has value.
4. Align with the city's Supply Chain Transformation and be strategic, transparent, and encourage innovation while adhering to all city purchasing legislation and by-laws.
5. Align with City Council-approved strategies aimed at improving environmental (i.e. reduction in greenhouse gas emissions), social (i.e., community health, wellbeing, employment) and economic (i.e. fiscal sustainability) outcomes.
6. Work closely with relevant partners and sectors, including relevant local industry associations, to help drive innovation towards more circular services, products, and mutually beneficial solutions.

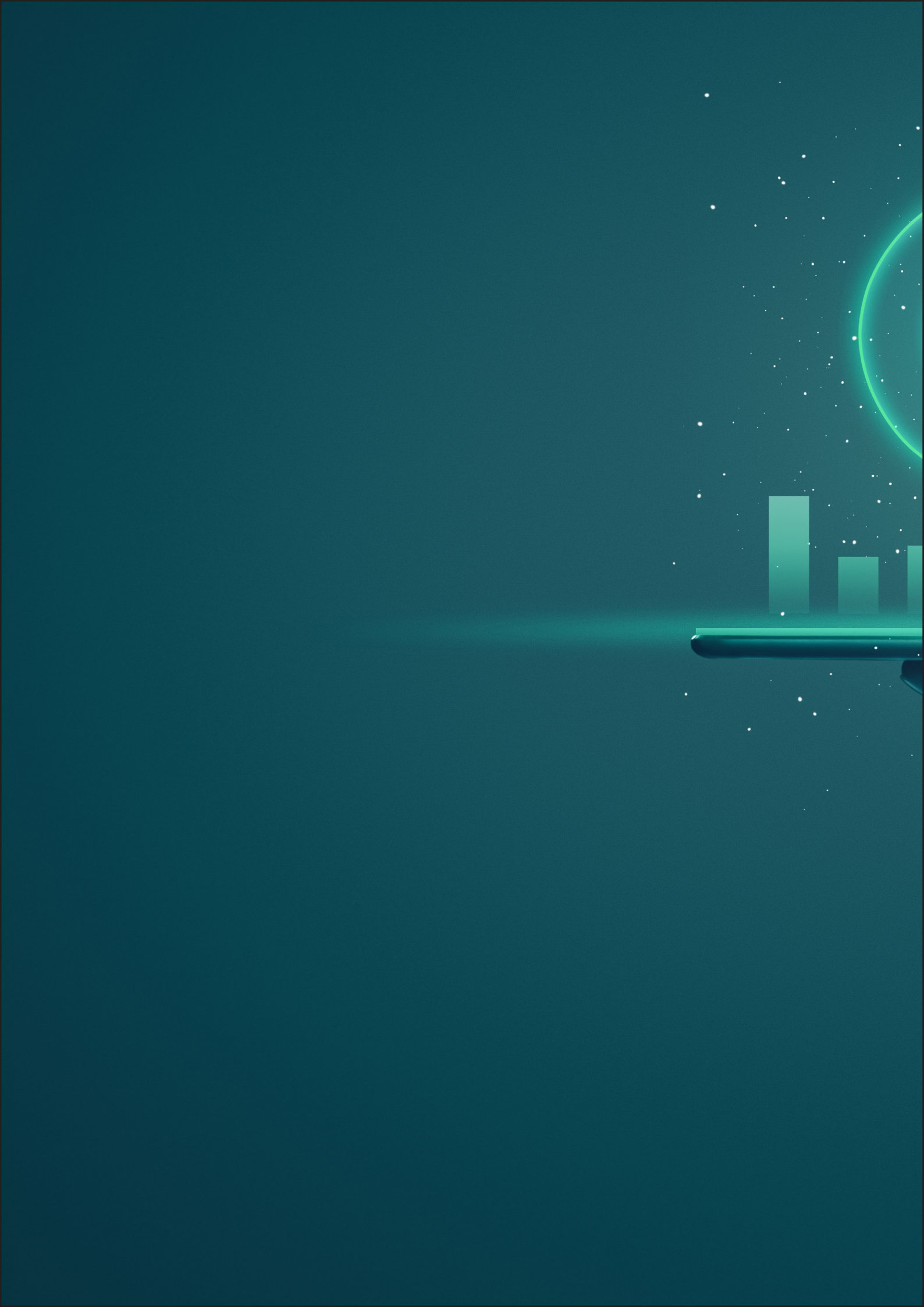
A further result of the Framework's development has been capacity building throughout the Great Toronto Area. After holding a city-focused workshop with the CDCE to develop the Framework, the City of Toronto together with a partner organization (the Recycling Council of Ontario) held a second circular economy procurement workshop with neighbouring municipalities and local city agencies. This workshop brought together 45 representatives in order to share knowledge and build capacity for the development of circular procurement practices in their organizations. Following the event, the city of Toronto and Recycling Council of Ontario produced a guidance document called *Moving Toward a Circular Economy: Considerations for Developing a Circular Procurement Framework for Municipalities*, which consolidates the workshop learnings and recommends actions summarized as follows:

Key Learnings, which identify the importance of:	Recommended Action Summary:
Education, Awareness, and Collaboration	Ensure that municipal staff have a clear understanding of divisional needs, opportunities, and barriers. Circular procurement begins with those who are responsible for planning, budget development, procurement policies and practices, specifically those that draft specifications that guide procurement.
Pre-Procurement Planning	Get to know your purchasing department. Fostering a circular economy involves a high level of pre-procurement planning.
Understanding Buying Power	Understand how areas in which funds are spent. This is fundamental to planning and streamlining product and service focus areas, and identifying high-potential product groups.
Setting Objectives and Key Priority Indicators	State your objectives and know how to measure your progress towards them.
Identifying Internal and External Stakeholders	Understanding key influencers will support the development and implementation of procurement strategy, including internal (i.e., champions who have sway within organization) and external (e.g., vendors, manufacturers, neighbouring municipalities).

The City of Toronto has continued to share key learnings on a national platform: on 21 August 2018, the National Zero Waste Council hosted a webinar called 'Advancing the Circular Economy through Procurement – Municipal Perspective.' Over 85 participants listened and engaged in a question-and-answer session following presentations by the City and by the Recycling Council of Ontario.

References

- Advancing the Circular Economy Through Procurement- Municipal Perspective, National Zero Waste Council (August 21, 2018) <http://www.nzwc.ca/videos/webinar/30>
- Approved Final Long Term Waste Management Strategy, City of Toronto (PW14.2 – Attachment 1, July 15, 2016) <https://www.toronto.ca/wp-content/uploads/2017/10/9803-Final-Long-Term-Waste-Management-Strategy.pdf>
- Circular Economy Procurement Implementation Plan and Framework: Procurement Implementation Plan (GM28.29 – Attachment 1, June 5, 2018) <https://www.toronto.ca/legdocs/mmis/2018/gm/bgrd/backgroundfile-115664.pdf>
- Long Term Waste Management Strategy, City of Toronto (Technical Memorandum No. 1 Current System Summary, August 25, 2015) https://www.toronto.ca/wp-content/uploads/2017/10/967e-SW_Technical-Memo-No-1-FINAL-AODA.pdf
- Implementation Plan and Framework for Integrating Circular Economy Approaches into City Procurement Processes to Support Waste Reduction and Diversion, (GM25.29 – Report from the General Manager, Solid Waste Management Services and the Treasurer on Implementation Plan and Framework for Integrating Circular Economy Approaches into City Procurement Processes to Support Waste Reduction and Diversion, June 5, 2018) <https://www.toronto.ca/legdocs/mmis/2018/gm/bgrd/backgroundfile-115513.pdf>
- Moving Toward a Circular Economy: Considerations for Developing a Circular Procurement Framework for Municipalities, Recycling Council of Ontario (June 2018) <https://rco.on.ca/wp-content/uploads/2018/07/Considerations-for-Developing-a-Circular-Procurement-Framework-for-Munic....pdf>
- City of Toronto Departments at <https://www.toronto.ca/city-government/accountability-operations-customer-service/city-administration/staff-directory-divisions-and-customer-service>







For more information,
please contact: u4ssc@itu.int
Website: itu.int/go/u4SSC

ISBN: 978-92-61-31251-0



Published in Switzerland
Geneva, 2020

Photo credits: ©Shutterstock