



GENERAL ASSEMBLY 2017

The WeGO Smart Sustainable City Awards

Ulyanovsk Region, Russia

Winners of the 3rd WeGO Smart Sustainable City Awards

OPEN CITY

GOLD AWARD

Edmonton

Open City Initiative



In order to fulfill its goal of being a global city that is innovative, inclusive, and engaged, Edmonton City launched its Open City Initiative. Prior to the program, municipal data was not freely available for citizen access, and inquiries were done through several disjointed and inefficient methods: emails, public engagement, or letters.

The project aims to make citizen-to-government interaction easier, data more open, and data-driven decision-making ubiquitous. It separates itself from many similar programs in its dynamic nature; data is analyzed in real time, and policy-makers, after discussion, are able to change focus almost immediately, taking the holistic needs of the city into account.

In 2016 alone, over 150,000 users accessed datasets, exceeding 400,000 downloads. The city credits the greater availability of data with increased programs and fiscal responsibility in Edmonton. Citizen-to-government collaboration has increased, and new services and data aggregation have emerged as benefits of the project. Holistically, the project may not have been as successful or as inclusive were it not for the Open City Wi-Fi service which was introduced to 83 public locations, ensuring that all citizens have the necessary access to broadband to take advantage of these services. In the long term, greater citizen health is expected as citizen services continue to be improved through data-driven decision making, and further economic development is anticipated as local businesses continue to take advantage of access to open data.

SILVER AWARD

Jakarta

Jakarta Smart City Portal



Like many mega cities of its size, Jakarta faces challenges in streamlining information among its departments and in sharing the information with its citizens. With over 10 million people, the city understandably generates massive amounts of data, and yet, prior to the Smart City Portal project, there was very little public access to such data. Furthermore, as many cities of any size experience, there was often a reluctance for departments to share data among one another, and even when the data was shared, it was often incompatible among departments.

The Jakarta Smart City Portal was implemented to address these challenges through open data, and has done so through some exceedingly innovative approaches. Integration of data among departments is a key feature of the project. API service allows various departments to integrate between apps and systems automatically or semi-automatically. Furthermore, in the interest of co-creating solutions, third parties such as companies, startups, and even hobbyists are able to collaborate if they wish. IoT even allows integration on a hardware level.

User experience is of great value to the creators of the Portal, and so flags were installed in the software to track and learn from how citizens interact with it. So far, this emphasis on being user-friendly has led to over 1 million views in a year, with nearly 70% of its usage occurring on mobile devices, which are extremely prevalent in Jakarta. Often datasets overlay on a map for easy interpretation. One example of a service on the Portal which receives heavy usage is the set of online public CCTV feeds, which experiences high traffic in times of large scale events in Jakarta.

Finally, as with any successful open data program, the project includes resources for submitting citizen feedback based upon the data, and this feedback can be utilized for policy-making. The project has already led to some suggestions which are currently being considered for implementation, and more such suggestions are expected to become policy in the future.

SPECIAL MENTION

Pittsburgh

Burgh's Eye View



An innovative mobile web application allowing citizens of the City of Pittsburgh to easily access and view, for the first time, the City's open data, Burgh's Eye View is enabled by a unique, regional open data collaboration. Through a collaboration with surrounding Allegheny County and the University of Pittsburgh, the City has positioned Pittsburgh's open data as a regional asset and worked to make it accessible for all.

Like other projects of its kind, it addresses a lack of a centralized data access for residents. But what truly made Burgh's Eye View excel in this category was its user experience, which compels everyday citizens, not just data enthusiasts, to utilize the platform on a regular basis. The mobile-optimized platform allows users to view a map of the city overlaid with various datasets which can be turned on and off by filters. One example of a popular filter is the "Police Blotter" which allows citizens to view crime in their neighborhood during a specific date range. To further attract these more casual users, efforts were made to remove technical barriers for less tech-savvy citizens and to make the app more intuitive for inclusivity.

The city also saved budget by utilizing open source tools such as RStudio to work with the data. The city uses its own, already-existing open data to populate the app, a process known as "dogfooding" (which is widely considered to be the most desirable method of data use in the civic data community).

As the city looks to improve upon the program in the future, it is carefully studying early cases and user levels, and working with its Digital Community Specialist to promote the program around the city and make citizens aware of its benefits. The team of analysts has visited dozens of community meetings to gather feedback. Further datasets will be made available as the program expands.

DIGITAL INCLUSION

GOLD AWARD

Miraflores

Miraflores 2.0 - Citizens' Participation Enabling Platform



With the spirit of civic mindedness and accountability central to its mission, the city of Miraflores previously allowed citizens to meet face-to-face with the mayor and every public officials weekly. However, as popular as the program was, it limited the amount of people who could attend to those who could physically be present. This especially excluded younger citizens whose schedules could not accommodate this.

As the next evolution of this program, Miraflores 2.0 was launched in order to provide the same two-way communication channel but via ICT to increase participation. This platform efficiently routes communication channels to the appropriate destinations for responses. These replies average between 40 seconds and 5 minutes from the initial inquiry. Since implementation, it has proven very popular, with 33,000 citizen requests (an overall 740% increase from the previous system) coming virtually, and 15% of these coming from citizens aged 20 or younger. As the youth demographic had been deemed underserved with the previous system, this is a great improvement.

The system is cost-effective, as almost all components were created in-house to reduce project costs. The app is available for Android and iPhone, and notifications that are sent from citizens are geo-referenced in order to better learn from where the requests are coming. Furthermore, requests made over Facebook and Twitter are also routed to the appropriate city officials. It even streamlines and handles more traditional communications such as emails and calls.

As the program develops further, the vast amounts of data collected from such citizen input will be processed with data analytics and eventually lead to even higher quality policy design.

SILVER AWARD

Seberang Perai

Smart Monitoring System 2.0



Seberang Perai has greatly prioritized inclusion for all of its citizens, an especially important task for a city which physically spans a very vast land area. For the Municipal Council, this means ensuring that all of its citizens have ready access to information on citizen services, such as flood monitoring and response, earthworks monitoring, development projects, and information on illegal dumping and environmental issues. The Municipal Council also wishes for citizens to simultaneously be able to communicate two-way with city authorities in real time. This ensures the most up-to-date quality services and also gives citizens a real sense of inclusion in their city's service delivery process.

Key features of the project that have led to its success include the mobile-friendly SMS2.0 app (nicknamed "SmartEye"), which is available for download on the Google Play Store for Android devices. It even includes an offline feature that stores feedback while there is no internet connection for the next occasion the device is connected. Furthermore, the "MPSP Watch" feature connects the service to Facebook, allowing citizens to file complaints and submit suggestions via Facebook. Amazingly, MPSP Watch was created and is managed by a citizen who did so without any funding, an example of the level to which citizens value and take ownership of the program.

In addition to betterment of citizens, the project provided many advantages to the city government including: time, money, and energy consumption which have all been improved as a result of the efficiencies the project offers the city. Building upon the initial success of SMS2.0 the city plans on even greater usership and results in the years to come.

SPECIAL MENTION

Cape Town

SmartCape Access Project



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

In order to address the digital divide between “haves” and “have nots” in Cape Town, this project aims to give equal opportunity to residents who may not have adequate internet and computer access. The city recognizes the immense benefit that broadband internet access gives to individuals that have it, and realizes that unequal access to this technology creates an even greater gap in economic and social inequality, issues that nearly every city must contend with.

Recognizing that access to technology is a right that it wishes each of its citizens to enjoy, Cape Town now deploys PCs at local libraries as well as free WiFi and productivity tools. Users wishing to use the internet need only to register at their local library. Doing so quickly and easily grants them 45 free minutes of data per day and 500mb of free data monthly.

The program utilizes very cost-effective ICT solutions such as open source technologies and refurbished desktops. Furthermore, the city cooperated closely with local corporations in order to make use of existing corporate infrastructure.

So far the program has proven very popular, and the city is in the process of expanding to accommodate even more citizens. As the libraries are already mostly at maximum capacity for PCs, it will likely focus on increasing the availability of the free public WiFi.

INNOVATIVE SMART CITY

GOLD AWARD

Qingdao

Qingdao Smart Social Insurance: People's Livelihood Service Platform



This comprehensive and multi-faceted Smart City program uses digital innovation to ensure the wellbeing of citizens in one of the most essential areas of life, their financial livelihood. Furthermore, it is improving public services and bettering the situations of especially vulnerable city residents.

The Smart Employment platform compiles information for the city's entire working age population, to tackle problems related to employment status. Skill training programs for workers were enacted in order to improve human resources, and data from the project helps to better match these workers to enterprises in need of such skills. Big Data is used to track employment trends and identify future areas of demand.

The project also has social welfare aspects. One aspect of it streamlined medical insurance processes, utilizing Big Data analytics to deliver better and more equitable service, and the other aspect provides e-service stations to ensure that groups like the elderly, migrant workers, and the unemployed have equal access to the same quality of public services as other residents.

Finally, an aggressive expansion of platforms for delivering public services helps to provide equal access to such services. These modes include window services, self-services, online services, and mobile services.

The various aspects of the program employ a wide variety of cutting-edge digital technologies such as facial recognition software and cloud computing to name a few. Contributing to the success of the program is the cooperation of corporations, particularly banks which assist in the payment processes of some facets of the program.

So far the program has been well-received and greatly improved services in the city. Qingdao plans to further expand usage of Big Data to improve the program even further as well as make improvements to information safety and update technologies according to the latest trends.

As the program develops further, the vast amounts of data collected from such citizen input will be processed with data analytics and eventually lead to even higher quality policy design.

SILVER AWARD**New Taipei**

NTPC Library 2.0+



As modern cities look to re-tool their libraries to fit the needs of a digital age, New Taipei has set a great example of how modern cities can utilize technological innovation to keep libraries relevant and central to the lives of their citizens. Not only has the program streamlined the libraries for the greatest possible resource efficiency, but it has made the experience more interactive for users and better-adapted to work with their modern lifestyles.

Given the busy working lifestyles of modern citizens, typical 9-5 checkout hours and long lines simply are not conducive for the typical citizen of New Taipei. 24 hour self-checkout and automatic book sorters eliminate this problem. User experience has also been made more comfortable with many new features: designated children's checkouts for a fun and interactive experience for young patrons, an E-book wall, the first electronic bookshelf of its kind in Taiwan, and specially designed interiors representing different geographic themes in which readers can enjoy their books in an imaginative environment. Special services have been designed with the needs of the elderly and disabled in mind.

Furthermore, administrative software streamlines processes, alleviating the burden on human resources for the libraries, allowing them to better serve patrons. Radio Frequency Identification and other IoT devices are used for the better tracking of inventory and greater efficiency of library processes.

The project has already been well-received, and even more improvements are already planned, including use of green energy, Virtual Reality experience, and a QR Code guided tour.

SPECIAL MENTION**Bydgoszcz**Smart Solutions in City
Transportation

A chief challenge for safety, productivity, and livability in modern cities is transportation. The Intelligent Transportation System (ITS) project collects and makes use of data from various IoT devices in order to improve public transportation, facilitate traffic at traffic crossings, and optimize public parking spaces downtown. Self-service bike rentals provide an affordable and environmentally sustainable 24/7 transportation option at 37 locations. Additionally it helps to alleviate traffic congestion. Smart public transportation cards allow riders to pay for transportation quickly and conveniently. Finally, smart street lighting saves energy and ensures that streets are adequately lit and safe for both traffic and pedestrians.

The program is particularly innovative in its usage of ICT across all aspects of the project as well as its sustainability. Traffic cameras not only provide vital data to help city planners create better policies to alleviate traffic and increase safety, but they can also be utilized to locate stolen vehicles. Bike rental stations are solar powered and utilize electronic locks for securing the bikes from thieves. Smart lighting systems also provide real time feedback to the city via IoT in order to monitor usage and alert when repairs and maintenance are necessary.

In addition to immediate energy savings from the street lighting systems, the program has been particularly successful in the usage of the bike rental system, which had over 35,000 users registered in 2016. Expansion of the ITS is planned as well as an increase in bike rental and park and ride locations.

SUSTAINABLE CITY

GOLD AWARD

Goyang

Smart Waste Collection
and Management
Service



Waste collection and management is rarely an area that receives prioritization in the field of smart technology. However, the city of Goyang recognized that cities often fail to introduce simple technology to evaluate their waste collection methods and thereby neglect a great method to improve its sustainability. With this in mind, Goyang implemented the Smart Waste Collection and Management Service.

High traffic areas were outfitted with special smart waste bins that contain built-in sensors to detect when they are full, and solar powered compressors crush the trash to prevent overflow. The use of solar power was chosen to further enhance sustainability. While this enhances citizen well-being by containing waste levels, the IoT aspect of the project is what makes it truly sustainable. The sensors feed data to the "Clean City Network" and the data is processed to track waste generation, overflow, and efficiency by the parameters of each bin, region, and time period.

Not only does this enhance sustainability in terms of being able to track waste generation, but it also helps the city to devise the most efficient collection routes possible, thereby reducing waste in terms of fuel consumed by collection vehicles and improperly utilized human resources. Controlling fossil fuel consumption by large city vehicles can have a serious positive impact on the health of the local environment.

Partnerships with domestic companies helps the project. Furthermore, the resources saved by the project help to offset the costs, showing that sustainability and citizen well-being can also be budget-friendly.

SILVER AWARD

Sejong

Smart City - The Future
for Global Cities



Sejong is a unique case study as it is almost entirely a new city, constructed within the past decade to become the new administrative center for Korean national government offices. As such, the city has been uniquely positioned to begin as a Smart City, almost from its outset. This has allowed the city to include sustainability at the core of its overall city program goals.

Under the scope of this overall project, many sustainability aspects are included. The overall city design is engineered with maximized public transportation in mind, and it aims for 70% of its transportation to be public, with bicycles also accounting for another 20%. To encourage this, bus arrival times are provided, and buses are given priority at traffic signals. IoT devices are used to ensure that these processes run smoothly and reliably. Roadside signs display where there are available parking spaces, to keep traffic flowing and prevent traffic jams which are a major culprit for vehicle fossil fuel emissions. Over 3,000 public ride-sharing bicycles are available for rental at ICT enabled, unmanned stations, giving citizens ample opportunity to ride along the city's 411 total km of bike paths.

Solar cell arrays are installed on rooftops, public parking lots, and on top of sound barrier tunnels. The entire town centers around a central green space in the shape of a ring. Waste is collected via chutes that take waste underground where it is sorted for recycling. Food waste is recycled into biofuel, and sewage is processed into extremely clean water before being released into the central river.

Many of these programs will be continued and expanded in years to come as the city continues to grow.

SPECIAL MENTION**Abu Dhabi****Electronic Awareness
Games**

The United Nations released its 17 Sustainable Development Goals, a blueprint containing 169 targets covering a broad range of sustainable development issues, many of which are directly relevant to urban challenges. As part of its Khalifa Empowerment Program for Students (Aqdar), the city of Abu Dhabi seeks to employ the power of video games to bring education and awareness of important messages to its students. As many of these areas of education and awareness overlap with key Sustainable Development Goals, it is an exemplary case study of a city government valuing sustainability in its programs.

Particularly, with the rapid population growth of the city and the extremely diverse set of nationalities, educating youth in social issues can play a critical role in having a safe and cohesive community in years to come. The program is supported by over 40 community partners and was implemented with training courses, lectures, and workshops. The program was rolled out on a smaller scale in certain grades and eventually expanded to include all grades on a large, citywide scale.

The project is notable not only for how unique the concept is, but for how successful the creators of the games have been in executing the goals. The games themselves are extremely playable and in terms of quality are able to hold the attention of students of various age levels, introducing difficult concepts to them in intuitive and natural ways. For this reason, the program is able to succeed where previous initiatives had failed.

E-GOVERNMENT SERVICE**GOLD AWARD****Veracruz****Veracruz City Digital
Electronic Government
and Open to the Citizen**

This program greatly overhauled the ICT infrastructure of Veracruz and opened online communication channels between citizens and the government. Previously, formal reports by citizens needed to be submitted in paper and were often lost in the administrative process, requiring multiple follow-up inquiries to be made. Furthermore, transparency was low and therefore accountability was an issue.

Within the scope of this project are multiple measures to reverse these problems. The Citizen Relation System processes citizen requests and has processed over 160,000 to date. The Digital Procedures System has re-structured and consolidated government processes leading to greater efficiency and fewer errors. Public WiFi spaces have increased citizen access to these services, and a consolidated citizen call center and online chat system have served nearly 30,000 residents. Furthermore, citizen convenience has been increased through services such as online consultations and tax payments.

It makes government processes more convenient for citizens and as the amount of paperless e-Government processes has greatly increased, it results in increased efficiency and reduced waste for the local government. As a further benefit, it reduces documentation errors and helps to discourage corrupt behavior. So far the project has already been a great success, and in the long-term the project has ambitious expansion plans, including 100% citizen usage rates, e-commerce platforms on the site, and a virtual education portal just to name a few.

SILVER AWARD

Biscay

BiscayTIK Project -
Municipal Administrative
Manager



The BiscayTIK project is a cloud-based ICT solution to offer centralized and streamlined e-Government services in Biscay for maximum efficiency. The Government of Biscay took the project of modernizing their local administration so seriously that they went as far as creating the BiscayTIK Foundation. The Foundation's directive is a total modernization of local administrations to bring citizens and administrators closer via technologically modern communication channels. Furthermore, it seeks to modernize the region and create synergies during the process, and finally to enhance the society of information in Biscay.

It also greatly increases electronic document filing services to reduce paper waste. It unifies isolated sets of information and gives citizens a way to interact with their local government comfortably and conveniently. As Biscay is a diverse region, the system was designed so that each municipality has the ability to implement the programs in ways that suit the different local needs of their area. Six pilot administrations worked together with the Foundation to design the system and tested the program before it was expanded to other areas. So far, over 90% of the local administrations in the area are using solutions provided by the BiscayTIK Foundation, and over 100 procedures are offered online.

Just a few of the more than 100 services introduced are in the areas of document registration, population registration, accounting, budget, tax collection/ management, human resources, payroll, and social services. The cloud-based, modular system can be implemented in whole or parts by the municipalities, according to their needs or preferences.

To date, 1.7 million procedures have been handled, 1,300 municipal employees have received training in the system, and 2,500 employees are using the system in total. Overall, the system has been successful in modernizing administrative processes in this diverse region, and it makes an excellent case study for other regions to do the same.

SPECIAL MENTION

Moscow

e-Government Services
of Moscow City



Due to the scale of a mega city like Moscow, making government processes more efficient can provide exponential benefits in terms of revenue savings, citizen satisfaction, and the overall livability of the city. Thanks to ambitious initiatives, all government services are now hosted in one, unified location on the Moscow web portal.

Some examples of the themes of services that can be conducted through this one-stop portal include but are not limited to housing, health care, children and education, and transportation to name a few. 160 services of 350 varieties can be conducted entirely electronically, accounting for 97% of all services. In 2016 alone, Moscow received 170 million applications for various services through this portal. This includes advanced tracking of the status of applications and requests as well as the ability to pay duties and fines online. 5.8 million Muscovites use the service, including 1.8 million mobile users.

The program has greatly increased the ease of citizen access and reduced costs for the government. Paper waste and inefficiently-utilized human resources were among the chief problems addressed by this program. Furthermore, indirect benefits to the city are enormous as transparency and accountability make for an easier business environment and reduced corruption. Another output has been increased dialogue between the city and citizens, particularly stakeholder groups. The program has fundamentally changed the perception of citizens concerning government services and improved the overall livability of the city.

COOPERATIVE CITY

GOLD AWARD

Taipei

Taipei Smart City Living
Lab - Government as a
Platform



While Public-Private Partnerships (PPP) offer immense potential for cities to undertake successful Smart City projects, such arrangements are often hampered by excessive regulation and strict rules limiting the interactions between the public sector and partners in corporations or academia. To address this challenge, the city of Taipei established the Taipei Smart City Project Management Office (TPMO). This office is tasked especially with matchmaking the private sector and its tailor-made solutions with city government projects in need of such solutions. This facilitation initiated by the Department of Information Technology (DOIT) and TPMO has expedited the process greatly, essentially transforming Taipei into one big living lab. It unites stakeholders from government, the private sector, and academia to deliver the best and most innovative services possible to residents.

Since March of 2016 the program has interviewed 200 companies and hosted 600 matchmaking meetings, with 60 successful matchmaking cases being produced as a result. Some examples of solutions that resulted from these partnerships are technologies for monitoring reservoir management, an app-based vehicle rental and return service, and IoT equipped sensors which monitor air quality near schools and shares this information with parents and faculty. In only a short span of time, the program has been able to create almost immediate tangible outputs for the city, and as the DOIT evolves and expands, more and more projects will be enacted to provide benefits to citizens' quality of life and stimulate the local economy by utilizing local companies to create these solutions.

SILVER AWARD

Kampala

Revenue Modernization
Project (RMP)



The eCitie Revenue Management System has streamlined, standardized, and automated some of the core processes in Kampala's revenue administration. This project improves collaboration among the various directorates and between the government and residents, creating cooperation across many stakeholder groups. Furthermore, by increasing efficiency in communications, it supports both vertical collaboration from the city government to national level departments and horizontal collaboration among city agencies from various disciplines.

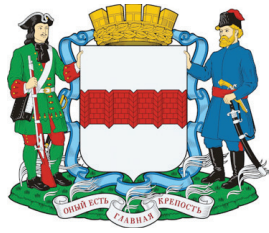
The project operates in a number of ways. Business registration was standardized and consolidated with information being shared across departments, facilitating the tracking of new taxpayers. Furthermore, service requests are shared across departments so the same resident no longer needs to submit multiple times to different departments. The same is true for the provision of data to the government. Payment processes have been automated, decreasing turnaround time for services and providing real time payment acknowledgement. Not only does this reduce the cost of doing business for residents, but it also allows for the government to better track transactions and capture more revenue in tax collection. This is revenue that may previously have been lost. This also makes fraud more difficult and consequently creates greater accountability at each step of the process. Improved enforcement and a reduction in labor have also led to higher morale among employees and greater citizen satisfaction with services.

Many facets of the program have already enjoyed success, and further expansions include applying the system to property valuation and incorporation of a Geographic Information System.

SPECIAL MENTION

Omsk

After Classes Project: Extra School Study Groups and Activities for Children



Education of its youth is among the most vital priorities for any city, and more and more families are realizing the benefits of supplementary education, not only for education alone but for student enrichment. These classes can encompass any range of activities from additional study in core school subjects, to arts and sciences or sports. Omsk has taken a forward-thinking and cooperative role in facilitating supplementary education for its citizens by creating an online portal that helps connect students to teachers and trainers.

Described as “Skyscanner” for supplementary education, the portal was designed to host study groups, sports classes, and other extracurricular activities. It helps students and parents to find neighborhood activities satisfying given age and focus. Furthermore, the one-stop portal allows communication between instructors and parents. The project has found success specifically because of the cooperation between stakeholders involved, as hosts of an estimated 85–90% of such supplementary education activities, representing around 2,000 entries on the site.

Cooperation came as a result of the top-down nature of the initiative, where impetus came from the Department of ICT with support from the Department of Education, the Department of Culture, and the Department of Youth Policy and Sports. The eventual goal of the project is 100% registration of supplementary education activities — both municipal and private, and expansion to the other cities.