

United States Conference of Mayors
Business Council 2016 Best Practices Report:

Mayors and Businesses Driving Economic Growth

2016





THE UNITED STATES CONFERENCE OF MAYORS

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The U.S. Conference of Mayors is the official nonpartisan organization of cities with populations of 30,000 or more. There are 1,393 such cities in the country today, each represented in the Conference by its chief elected official, the Mayor.



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Foreword

The United States Conference of Mayors is proud of the members of the Mayors Business Council and the work they have accomplished with cities to improve the quality of life in America's cities. Working together, our cities have become more livable and more competitive, and the economy is growing stronger every day.

The *United States Conference of Mayors Business Council Best Practices Report: Mayors and Businesses Driving Economic Growth* showcases outstanding and innovative public/private partnerships submitted by the Mayors Business Council to inspire other cities and companies to work together in addressing the economic challenges facing cities and our nation.

Mayors and business leaders agree that creative public/private partnerships are a major force in shaping cities of the 21st century and experience has shown when businesses and local governments work together, our cities benefit and our nation is stronger.

The Mayors Business Council has been an integral part of the structure and activities of The United States Conference of Mayors for over 15 years. Central to the mission of our Business Council is the goal of both improving the business environment in cities and sharing the successful public/private partnerships that take many forms with benefits ranging from economic development and environmental improvements to better schools, a more educated workforce, and connected cities through technology.

In an era of diminishing federal funds and increasing unfunded federal mandates, the Conference must continue to strengthen its relationship with the business community by nurturing and celebrating the new and creative partnerships between cities and businesses.

Tom Cochran

CEO and Executive Director

The United States Conference of Mayors

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AARP – Great Communities for All Ages – Network of Age-Friendly Communities

Challenge: The U.S. population of people age 65 and older today numbers almost 46 million, with 73 million projected by 2030. By then, fully one out of every five people will be 65 and older. AARP is working locally in ~150+ U.S. communities to help local leaders get ahead and prepare for their aging populations and create “livable communities.” This includes work in almost 100 communities through the AARP Network of Age Friendly Communities. Much of the work that is needed carries benefits for all generations; with that there are several areas targeted for improvement when building communities that are great places for all ages:

1. Housing: Safe, Affordable, Accessible
2. Transportation: Smart Solutions for People on the Move
3. Environment: Fresh Air, Clean Water and Open Spaces
4. Health: From Food to Fitness
5. Engagement: Connecting People to Their Neighbors and Leaders
6. Opportunity: Embracing Diversity, Pursuing Possibilities
7. Culture: Elevate the Arts to Elevate the Community
8. Neighborhood: A Place to Live, Work and Play

Description: Making a community more livable and age-friendly takes a village. Local leaders, residents, advocates, experts, business owners and businesses, government agencies and nonprofit organizations all play a part. Financial support is certainly needed for long-range plans and infrastructure projects, but even simple solutions incur some costs. Because of that, grants and sponsorships from charitable foundations and community development organizations play an essential role in many livability and age-friendly efforts. These organizations vary greatly in size and scope and have different standards and rationale for determining how much they will contribute to a given effort. Some funders prefer to provide seed money to get a program going; others won't get involved until they feel assured the investment will achieve the desired outcome. However funders choose to engage, the experience across the country is that many are stepping up in a variety of ways to fund programs to help create communities that are great places for all ages.

Impact: The impact can vary, but in one specific scenario, consider Honolulu, Hawaii. Through work with partners in government, private sector and foundations, Honolulu joined the AARP Network of Age Friendly Communities and declared its intent to be an Age Friendly Community. While the work is being implemented, the partnership brought together hundreds of thousands of dollars to implement an action plan. The action plan includes specific recommendations. Once fully implemented, it will hopefully stimulate adoption of policies from Housing to Transportation to Civic Participation. An example of one immediate impact includes the successful implementation of a “Complete Streets” policy to encourage transportation projects that provide safe mobility for all users. The positive economic impact of these policies has been demonstrated across the country. Another example includes garnering and sustaining cross-departmental support for the action plan. While this is one example, the action plan contains many others – from multigenerational fitness and play areas to employing incentives to push more developers to develop rental properties.

How-To:

The process to create an Age Friendly Honolulu started in Hawaii with a “Walk Audit” done by AARP Hawaii and other partners along with Honolulu Mayor Kirk Caldwell. Working together with Councilwoman Ann Kobayashi, they worked to pass a resolution through the city council declaring Honolulu to be an Age Friendly Community. From there, the group worked to bring together broad stakeholders, including public & private entities, thought leaders and funders. After bringing together a key group of stakeholders the city of Honolulu launched the planning infrastructure including a Citizens Advisory Committee (CAC), a Steering Committee and other sub and supporting committees. Simultaneously, the Steering Committee approached funders; the key to getting funders was to package “the ask” and articulating the impact. In this case, Kaiser Permanente was brought to the table as a key funder. They joined the effort (and provided \$130,000) to help implement the city's work plan because they saw that “a healthy community is vital to the health of the whole person, so age-friendly work is a natural extension of our integrated care model,” according to Mary Ann Barnes, R.N., President of Kaiser Permanente Hawaii. Kaiser was joined by several other funders including: Thrive, Hawaii Pacific University, the City of Honolulu, AARP Hawaii, Alexander and Baldwin, Inc., Gentry Homes, Hawaiian Electric Industries, Ward Village and others. Now, the work will transition to the implementation phase, which includes a series of micro grants to pilot “Age Friendly” projects.

General Tips:

Partnering with organizations that have reach into the public can be essential to the success of these efforts. In short, building public will and engaging residents can be “make or break.”

Funding: Private Financing, Foundations and Philanthropy

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created, Increased Tourism, Business Benefits

Accela Reduces Cost of Solar with American Cities

Challenge: Mayors are rising to the challenge of climate change and implementing local solutions for a clean energy future. Mayors have rightly looked towards increasing solar energy as one actionable way of responding to climate change. While the overall cost of solar has fallen, delays in permitting and inspections have created a significant drag on deployment. The National Renewable Energy Laboratory reports that local regulatory processes alone can add upwards of \$2,500 to the cost of each residential solar installation. In an ongoing effort, the U.S. Department of Energy's SunShot Initiative has focused on reducing delays from solar permitting and inspections. Accela, the leading provider of municipal permitting and inspection software has teamed up with PG&E, SolarCity, Qado Energy, Vuspex and a growing list of California cities including Atascadero, Antioch, Berkeley, Clovis, Fremont, Fresno, Livermore, Oakley, Richmond, San Francisco and Stockton to compete in the DOE's Sunshot Initiative "Race to Seven Day Solar" competition. The goal is to reduce "permit to plug in" times from a national average of 30 days to less than 7 days.

Description: Accela has streamlined solar permitting with numerous local governments; one Accela customer saw solar permit requests spike 300% over 5 years, yet simultaneously reduced processing times by 75%. Accela and its Sunshot teammates are building on this success by focusing on the following technology improvements.

- Online Solar Permit Applications. With online permitting, solar companies save time and resources that can be passed along to their customers. Permitting agencies reduce lines at permit counters and workflow is efficiently spread throughout the day.
- Electronic Plan Submission and Review technology allows solar installers to submit plans electronically and streamlines city staff reviews.
- Mobile Video Inspection technology through Accela's partner, Vuspex. This innovative mobile app, allows city inspectors to conduct remote video inspections through the solar contractor's smart phone, without ever leaving City Hall, reducing inspection timelines as well as transportation costs for city inspectors.
- Reduce interconnection times through an integration of Accela's technology and PG&E's utility software, streamlining the "permission to operate" certification process.

Impact: Together, these 4 steps are dramatically streamlining participating cities' solar regulatory processes and producing substantial efficiencies for solar installers and city permitting agencies that will ultimately drive down the cost of solar and drive deployment of renewable energy.

How-To:

1. Offer Online Solar Permit Applications.
2. Use Electronic Plan Submission and Review.
3. Utilize Mobile Video Inspection app.
4. Create an integration between Accela Civic Platform and your utility software.



Funding: General Purpose City Funds

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created

Alkermes and the Battle Against Heroin and Opioid Addiction

Challenge: Across the United States cities are struggling with growing heroin and opioid epidemics. In the past few years overdose deaths have nearly quadrupled; admissions of newborns to specialized intensive care hospital units for “neonatal abstinence withdrawal” due to maternal opioid dependence have increased six-fold; heroin use has doubled. The opioid epidemic is straining city public health services such as hospital and emergency medical services; infectious disease (hepatitis-C and HIV) clinics; child and family welfare services; and overdose rescue. Similarly, drug cartels have targeted cities as ripe markets for heroin and illicit opioids, draining law enforcement budgets and filling city jails. Worse still, we do not know how bad this epidemic will become or when it will end. We only know that no city is immune and that current efforts are not working well enough.

Description: Beginning in 2007, Alkermes Public Policy team began working with city leaders to enhance opioid addiction treatment systems that previously relied exclusively on methadone and other opioid replacement therapies, such as buprenorphine (e.g. Suboxone®). VIVITROL is a non-addictive, non-narcotic medication that is FDA approved for use in conjunction with counseling, following detoxification, to help prevent relapse to opioid addiction. Persons must be opioid free for a minimum of 7-10 days before treatment with VIVITROL. VIVITROL is administered as an intramuscular injection once per month. For complete information about this medicine including important product safety information, please visit vivitrol.com. Alkermes offers city leaders an array of free product education and resources. In addition, free first doses of VIVITROL have been made available to qualified treatment systems.

Impact: Health economic studies have shown that VIVITROL has helped to decrease hospitalization costs and overall medical costs, when compared to usual treatment approaches. In addition, VIVITROL has been shown to reduce relapse following detoxification. Recently, the White House highlighted the VIVITROL assisted jail reentry program, which is sponsored by the U.S. Department of Justice and can be found here: www.rsat-tta.com/Home

How-To:

Key city stakeholders, including public health and criminal justice, who are committed to addressing the heroin and opioid epidemic are identified and educated about VIVITROL as a treatment option. City leaders commit to including the full range of FDA-approved treatment options for opioid addiction. Local opioid addiction treatment “champions” are identified and educated about VIVITROL, including product safety information. Barriers to patient access are identified and removed. Alkermes public policy team members can provide information regarding elements to consider in rolling out a VIVITROL “demonstration” or “pilot” program. City-wide roll out expands patient access to VIVITROL and related recovery services.



Funding: Federal Grants, State Grants

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Tags: Service Delivery Improvement

American Federation of Teachers – Supporting Student Success: Community Schools Work!

Challenge: Opportunity is at the heart of the American dream. Sadly, for far too many American children, that dream has been denied over and over again thanks to barriers like food insecurity, a lack of access to healthcare and essential resources, inadequate public schools and unsafe neighborhoods. Community schools—a place and a set of partnerships between school and other community resources—are a comprehensive and effective equity strategy that organizes resources to provide students and their families with the opportunities and supports they need to thrive and succeed. Community schools pay attention to both the academic needs of students and the out-of-school factors affecting their families and surrounding communities, which has a direct effect on student learning and development. Community schools serve as a hub for the community, creating positive conditions for learning that prepare students for college, careers and citizenship. These hubs not only improve educational outcomes for cities where they are located but also positively affect the health, social and emotional needs of students and their families and improve economic development.

Description: Community learning centers. Full-service schools. Community hubs. Whatever you call them, community schools make a difference in the lives of children, families, educators and their communities each and every day. By moving beyond the normal confines of the school and partnering with local stakeholders, community schools provide real solutions to the unique problems of the students and families they serve, and are another major step forward in reclaiming the promise of public education. Community schools aren't just centers of education; they're the new heart of the community itself that help create better conditions for both teaching and learning. They're a place where teachers, families, community members and service providers can come together in coordinated, purposeful and results-focused partnerships. They become the center of their communities by providing the services to students, families and neighbors that best serve their needs, while at the same time promoting stable, healthy neighborhoods. This isn't just another program: It's a paradigm shift in the way we think about schools that goes well beyond just providing supports and services for students.

Impact: Community schools are on the rise all over the country. These schools have reduced health-related obstacles that cost students instructional time. Students miss fewer days of school for treatable illnesses and are less distracted by medical issues. Baltimore is a city that boasts 45 community schools, preK-5 community school students are 7.3 percent less chronically absent than their non-community school peers. Community schools serve as hubs for the community, helping families establish roots rather than moving around to receive necessary services. They provide continuity for students and families, and improve student achievement and graduation rates. John Hancock College Preparatory High School in Chicago, after embracing the community school model, saw a 20 percent increase in five-year graduation rates, and its freshman on-track rates rose from 80 percent to 97 percent. Community schools help parents support the work that teachers are doing in the classroom. When parents and families use services at the community school alongside their children, they are more likely to gain skills and to be able to help their kids with homework and reinforce the lessons taught at school.

How-To:

Community schools are meant to serve the unique needs of individual communities. This type of school requires true and real coordination of academic and nonacademic partners. Each community school site should be equipped with a coordinator. This team member will serve as the point of contact for partnerships, local stakeholder relations and the day-to-day implementation of the community school. In addition to the coordinator, community schools need supportive administrators, involved educators and school support staff, and engaging curriculum connected to the real world. Community schools need strong ties with the community, which can be used to directly support instruction, empower student learning and bring the entire community together. In addition to providing services to students and families, community partners also can contribute to the quality of instruction provided by teachers at the school. For example, a local manufacturing plant can team up with a high school math department to show students the practical applications of geometry in designing packaging. Meanwhile, a senior-living facility works with fifth-graders learning about the history of immigration to conduct an oral history project. The inclusion of community partners in schools can help students to see the real-life applications of classroom content and to develop a lifelong love of learning. Effective implementation requires strong governance at the local level and consultation with all stakeholders, including educators. Educators are often the best acquainted with students and their particular needs, so their input on the local site decision-making team is invaluable. For example, teachers can let others know what barriers students face and need support with to help prepare them for classroom learning. A community school strategy is exactly what schools need to meet and exceed standards, and to achieve the high-quality instruction we know teachers want to provide for their students.

General Tips:

The AFT works with national partners such as the Coalition for Community Schools (www.communityschools.org), the Children's Aid Society (www.childrensaidsociety.org), the National Center for Community Schools (www.nccs.org) and Communities in Schools (www.communitiesinschools.org) to support local communities in their planning and implementation of this strategy.

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Impact on City Economy, Business Benefits

Long Beach Civic Center Benefits From Arup's Guidance

Challenge: The current Long Beach Civic Center buildings (City Hall and City Library) were determined to be seismically unsafe, in a significantly deteriorated state, and highly energy inefficient requiring the City to bear high operating costs. With the urgency required to meet basic seismic safety, the City considered the following solutions: (a) Seismically retrofit the existing buildings, together with Code required upgrades — the costs were equal to or higher than the cost of new construction, and a seismic retrofit would not address inefficient operations. (b) Rent space in downtown office buildings — this was spatially inefficient as the City would need to occupy multiple buildings and challenging logistically for a seat of government. (c) Implement new construction — City staff had concerns about the potential for cost overruns, schedule delays, and long-term deferred maintenance issues, which are often associated with traditional design-bid-build delivery financed directly by the City, especially for a large and complex new project with limited staff experience. These concerns and circumstances led the City of Long Beach to consider alternative project delivery and financing options. The City closely observed the development of a State of California-sponsored P3 project, the Long Beach Deukmejian Court House. This privately financed project was completed on time and on budget by the State and included a comprehensive long-term operations and maintenance program.

Description: Arup has been acting as the Lead Advisor on the project for the City and Port of Long Beach since November 2013. The City of Long Beach chose to proceed with the P3 model for the new Civic Center facilities, which allowed it to shift risk and capital requirements, and accelerate the project planning and design phases. After a 9-month bidding process, in 2014 the Long Beach City Council selected Plenary-Edgemoor Civic Partners (PECP) to design, build, finance, operate, and maintain the new Civic Center. The new Civic Center will comprise two new 11-story buildings, one new library, and one revitalized city park. The project is being delivered under special P3 State legislation obtained by the City. The consortium will hand the facilities back to the City after 40 years. The City retains ownership of the land and the improvements at all times once they are completed. Under the P3 agreement, the City of Long Beach would pay no more than the \$12.6m it currently costs to operate the existing facilities. The Project reached financial close on 4/20/2016. Under Arup's guidance, the City streamlined the traditional three- to five-year project development process to just over two years.

Impact: A key benefit to the City of Long Beach is that adequate and predictable funding and execution of high-quality facility maintenance is guaranteed during the 40-year term. This ensures that preventative maintenance is carried out throughout the life of the project. Furthermore, the P3 contract's risk-transfer mechanisms incentivize timely and on-budget completion of construction, which limits monetary risks to the General Fund. In addition, the private financing, which has no recourse back to the City in unforeseen cases of contract nonperformance, does not impact the City's debt capacity or credit rating. Most importantly, the City gets brand-new, modern, energy efficient, and seismically resilient facilities for less money than it would spend if it continued to operate and maintain the current city hall. Because the payments from the City to the P3 developer will closely mirror what it would cost to continue operating and maintaining these facilities, the project doesn't require tax increase nor use of General Fund. A key benefit to the community is a revitalized downtown area and a new Civic Center that is projected to create 8,000 new jobs during construction, with a local hire and small business focus. The private development site will provide the community up to 850 residential units, over 1,000 new residents to downtown, an up to 200-room hotel and approximately 47,000 gross square feet of retail.

How-To:

- Arup built market confidence by recommending a procurement strategy to address the constrained political schedule and helped the City prepare and release an RFP on time.
- Arup helped the City of Long Beach articulate its goals and requirements in a clear and consistent manner, which resulted in two responses to the RFP with potential to meet the City's stated goals and provide value in the City's downtown assets while achieving wider economic and social development goals.
- Arup advised the City in the selection of a partner to develop, design, build, finance, operate, and maintain the New Long Beach Civic Center, Port Headquarters, and related downtown development.
- Arup led the partner selection process, successfully framing and maintaining the City's stated affordability limits as a key commercial threshold throughout the procurement process.
- Arup provided the City and Port of Long Beach comprehensive end-to-end services, integrating financial, commercial, real estate, design, engineering, and cost consulting.
- Arup demonstrated effective project management to ensure the project procurement was delivered on schedule and on budget



Funding: Private Financing

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Impact on City Economy, Jobs Created, Increased Tourism, Business Benefits

Best Buy Helps Build Tech Skills with Dallas Students

Challenge: Providing technology training and skill development aimed at bridging the digital divide is a commitment shared by Best Buy, the Dallas Mayor's Office and the Dallas City of Learning (DCOL) program. Through this partnership, students of all ages have had new opportunities to learn new tech skills and get excited about exploring careers in technology.

Description: Since 2014, Best Buy has partnered with Dallas to offer year-round tech education events focused on under-served youth. Students have had the opportunity to learn a variety of tech skills, from programming to circuits to 3D design and printing.

Impact: Thousands of students earned digital badges for completing tech activities and programs throughout the year.

How-To:

The strengths of each organization played a critical role in increasing the participation of a diverse student group. DCOL's connections inside the Dallas Independent School District helped provide new avenues to reach the city's youth. Best Buy provided employee volunteers to support the City of Learning Summer Kick-off Maker Faire as well as technology-oriented learning stations. The Best Buy Challenge, a contest to encourage students to earn digital badges for completing tech activities, was key to building student interest and engagement. Best Buy taught Hour of Code sessions to introduce programming to over 200 students, and Best Buy's Geek Squad Academy provided students with a two-day technology camp experience that developed skills in Digital Music creation, 3D Design, Film & Editing, Robotics, and safe online behaviors. Best Buy provided additional support for the Mayor's Back to School Festival by offering Maker Faire activities that taught students to problem-solve and engineer new solutions. Best Buy has also provided a \$100,000 grant to Collective Shift and LRNG, a City of Learning collective that organizes many locations, including Dallas. Best Buy is also making an additional investment in Dallas with the Best Buy Teen Tech Center, opening soon inside the Juanita C Craft Recreation Center (part of Dallas City Parks and Recreation). This free after-school program will guide students interested in learning about programming, photography, 3D printing, and more.



Funding: Philanthropy and Giving

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Tags: Education

Black & Veatch – Silicon Valley Water Resiliency and Sustainability

Challenge: The effects of climate change, population growth and drought in northern California are requiring communities to seek additional water resources. Recycled water has been used in Santa Clara County since the 1970s and comprises almost 5 percent of the county's water supply mix. The project was designed to raise the resilience of the region's water supply.

Description: The Santa Clara Valley Water District (District) owns and operates the Silicon Valley Advanced Water Purification Center (SVAWPC) in California. It created the center in partnership with the City of San Jose to improve the area's recycled water quality. It is the largest advanced water purification plant in Northern California and the first of its kind in the San Francisco Bay Area. The project was designed to raise the resilience of the region's water supply. It uses microfiltration, reverse osmosis and ultraviolet disinfection to produce highly purified water. The final treated product is then blended with an existing recycled water supply produced at the neighboring San Jose-Santa Clara Regional Wastewater Facility to achieve the quality targeted for reuse in the community.

Impact: As a result of the cooperative effort and regional approach between the District and San Jose, the improved recycled water fueled by the SVAWPC can be used in applications including irrigation, landscaping, recreation, cooling water, and industrial processes. The project is expected to save in the range of 800 million gallons of potable water each year, significantly mitigating pressure on drinking water supplies. The SVAWPC takes treated wastewater that otherwise would be discharged into California's San Francisco Bay and instead produces 8 million gallons a day of highly purified water for multiple reuse applications. Providing tertiary treatment through microfiltration, reverse osmosis and ultraviolet light, the \$68 million state-of-the-art facility is a sustainable water resource that saves, even potentially expands, the area's precious drinking water supplies.

Ultraviolet Light Disinfection



Laboratory Quality Testing



Microfiltration and Reverse Osmosis

How-To:

Using proven, widely implemented technologies, the center produces purified water that is expected to match California's primary drinking water standards. This means the project potentially adds a local, safe, reliable and sustainable resource to Silicon Valley's water supplies. In other communities, Orange County for example, purified water from advanced treatment is being added to water supply sources. The District intends to analyze results from areas where this approach is proving successful as it considers applying the technology to augment its drinking water supply.

General Tips:

The effects of climate change, population growth and drought in northern California are requiring communities to seek additional water resources. Black & Veatch was a key partner throughout the planning and implementation phases of the project. In the early stages, the company helped select the appropriate treatment technology to meet current needs and future regulations. Black & Veatch helped to size and locate the facilities to meet the short- and long-term needs of the District and the City of San Jose. The company procured the membranes through a pre-selection process, to accelerate design while minimizing costs. Black & Veatch also assisted in construction and startup phase activities. With the new SVAWPC, the company helped the District join other municipalities nationwide that are implementing forward-looking and sustainable solutions to meet their water supply demands.

Funding: Municipal Bonds, Federal Grants

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created, Business Benefits

CGI Communications – The Community Showcase Video Program

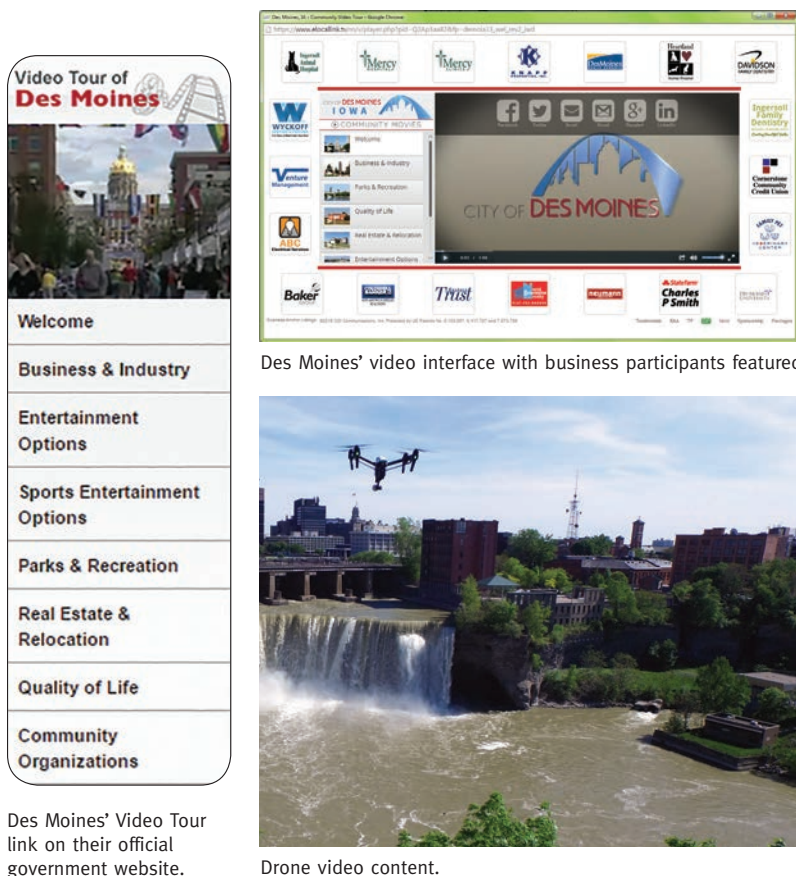
Challenge: The Community Showcase Video Program improved Des Moines' official website by creating a Video Tour that allowed new residents, visitors, and businesses to see what the city has to offer. Not only did the program enhance the official government website, it also provided local businesses the opportunity to reach a new online audience by being featured on the top-ranked website in the community.

Description: Working with over 3,000 municipalities nationwide, CGI understands marketing budgets are restricted in most cases. We helped the City of Des Moines enhance community and business awareness, expose their hidden gems, and welcome new families and tourists at no cost to their city or taxpayers.

Impact: CGI created an interactive experience for their online visitors to learn more about their community. The project provided valuable information in regards to entertainment options, parks and recreation, quality of life, business and industry, and more. Local businesses also gained exposure to potential new clients by becoming a sponsor of the program. High-definition video content, online reputation management services, and search engine optimization are just a few examples of the services our business partners can take advantage of. With an easily viewable interface on the official city website, this video program encouraged viewers to not only learn more about the area, but also the businesses supporting the program. With over 16,000 views in six short months, the Community Showcase Video Program has allowed future residents and visitors the ability to walk through Des Moines without ever stepping foot in the city.

How-To:

For almost 30 years, CGI has learned the importance of public and private partnerships, and this strategic business model has allowed our program to be available for communities of all sizes and demographics. Every municipality is unique, and it is CGI's mission to provide them creative solutions without ever sending an invoice.



Funding: Private Financing, Business Sponsorships

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Tags: Innovation, Cost Savings, Increased Tourism, Business Benefits

CH2M – San Francisco Contamination Warning System

Challenge: After the 9/11 attacks on New York, security was brought to the forefront. Securing critical infrastructure across the US was a top priority and the water distribution system security was at the top of the list. The San Francisco Contamination Warning System (CWS) Project provides the San Francisco Public Utilities Commission (SFPUC) with a system to not only maintain system security, but also monitor and improve water system operations and regulatory compliance. The project provides SFPUC with the processes and technology to optimize their system on a daily basis, monitor in real-time multiple key system characteristics in a unified spatially enabled application, and determine system threats and operational issues without having to dig through mountains of data. This provides SFPUC with a powerful tool for their day to day operations and to utilize for emergency events — previously stove-piped information is now available at SFPUC's fingertips.

Description: CH2M partnered with SFPUC to prepare the grant to US EPA to fund the effort, coordinated with vendors to test and evaluate technology solutions and merged with the people and processes of SFPUC.

Impact: SFPUC wants to have a reliable real-time water quality monitoring system in place. All elements of water quality including sampling procedures, laboratory analysis, physical security of the key assets, and real-time monitoring of customer feedback were reviewed and optimized. SFPUC wants to provide their staff with actionable information that can be easily understood and provide the basis for rapid detection and response. Advanced event detection systems are being utilized to allow SFPUC to create a set of clear and defined responses, linked to a consequence management plan. With the system in place, SFPUC has a direct method of determining the true operating conditions of their system in real-time, while increasing system security. The system has freed up their staff to focus on improving the water quality through automation. The system has already allowed the visualization of the impacts of main breaks on water quality and a real-time analysis of impacted customers within their distribution network, and has provided SFPUC with the information to react and respond quickly to minimize customer impact.

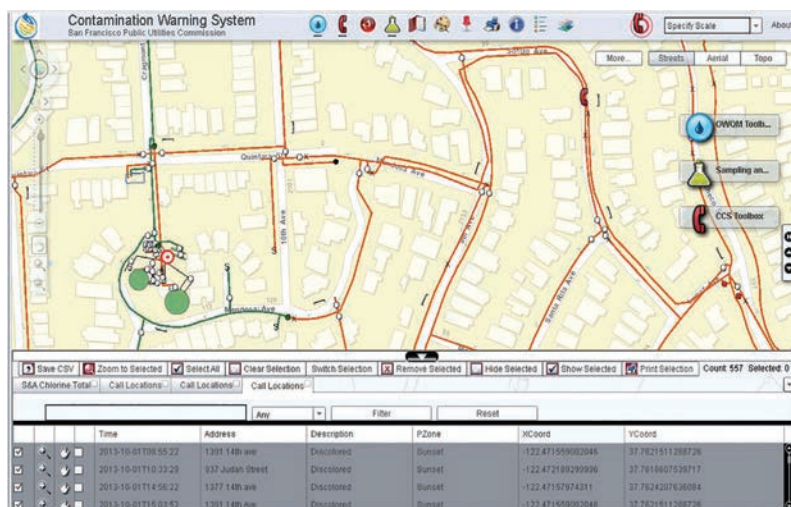
How-To:

The systems CH2M developed as part of this effort are the first of their kind. The data integration and visualization solutions created in the project can be replicated and plugged into new projects, irrespective of the applications in use at a utility. From a water industry perspective, the systems created provide a previously unseen depiction of the true distribution characteristics and has opened the doors to new opportunities to utilize the wealth of information intrinsic in the data. The platform developed is driving our Smart Grid efforts to new clients.

General Tips:

Technology innovations for this project include:

- Provide at-a-glance system status both in the office and in the field
- Integrated view of all water quality (WQ) related data
- Spatial querying and visualization of current and historical WQ data
- Real-time insight into distribution system performance, such as water age, flow and pressure gradients, water quality parameter gradients across the City
- Movie playback of water quality related issues (show the location of customer complaints over time to visualize the movement of a contamination event)
- Operator response tracking during emergencies
- Real-time multiple data sources
- Elimination of data silos
- Field data capture and emergency response coordination



San Francisco Contamination Warning System

Funding: Federal Grants

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Business Benefits

Citi Community Development – Cities for Citizenship

Challenge: There are currently 8.8 million legal permanent residents in America who are eligible for citizenship – 52% of whom are low-income. Research shows benefits of naturalization include an average earnings increase of 8.9%, or \$3,200, in one year, along with increased employment and home ownership rates. According to the FDIC, foreign-born citizens are also much more likely to have a bank account that provides them with financial security – less than 5% of foreign-born citizens are unbanked compared to about 23% of non-citizens. However, due to a variety of real and perceived barriers, less than 10% of those eligible naturalize each year. Cities for Citizenship addresses this challenge by promoting the expansion of naturalization and financial empowerment programs nationwide and in turn boosting economic opportunity for immigrants and the cities and counties in which they live.

Description: Launched in 2014, Cities for Citizenship (C4C) is a national initiative aimed at increasing citizenship among eligible U.S. permanent residents and encouraging cities and counties across the country to invest in citizenship programs. It is chaired by New York City Mayor de Blasio, Chicago Mayor Emanuel, and Los Angeles Mayor Garcetti, with support from the Center for Popular Democracy and the National Partnership for New Americans. Citi Community Development is the Founding Corporate Partner. This national cross-sector partnership harnesses the strengths and contributions of municipal leaders, nonprofit organizations, and a global financial institution – Citi – to promote naturalization for eligible permanent residents, which sends a strong message of inclusion and produces substantial economic benefits to immigrants and urban economies. Cities and counties join this coalition to encourage eligible residents to apply for U.S. citizenship and join the collective voice of municipalities advancing citizenship as a means of economic empowerment for immigrants and cities. Members receive support in launching, improving, and expanding naturalization and financial empowerment programming.

Impact: Cities for Citizenship has grown to 22 member cities and counties. Cities for Citizenship programs have assisted over 21,000 individuals; including 7,500 individuals who have received financial empowerment information such as fee waiver information, financial counseling, and microloan assistance. With technical assistance from the C4C National Nonprofit Partners, each member city and county is developing and implementing plans to encourage citizenship among eligible residents. These activities include partnerships with libraries, legal and financial empowerment assistance workshops, media events, hosted oath ceremonies, and more. On Citizenship Day (September 17, 2015), and in collaboration with the White House, C4C members organized over 80 events to promote citizenship. C4C has been highlighted by the White House Task Force on New Americans as a model public-private partnership, and the initiative has received positive media coverage in national outlets including the Wall Street Journal and CNBC.com.

How-To:

Research on Economic Benefits: In 2014, C4C launched “Citizenship: A Wise Investment for Cities,” a report to analyze and assess the social and economic benefits of increased naturalization to immigrant families and local economies for Chicago, Los Angeles, and New York. In 2015, the Mayor’s Office of New York and Citi Community Development released “The Economic Impact of Naturalization on Immigrants and Cities”, examining economic benefits of naturalization for 21 cities across the United States. These research projects provide essential data and encourage more cities to get involved. **Multi-sector Collaboration:** Recognizing Citi’s commitment to immigrant integration, The City of New York approached Citi Community Development to become the Founding Corporate Partner of Cities for Citizenship. The C4C Executive Committee, which drives the vision and oversees programming and activities, includes Citi Community Development, representatives from the mayor’s offices of New York, Los Angeles and Chicago, and the two national nonprofit partners, the Center for Popular Democracy and the National Partnership for New Americans. The Executive Committee meets regularly to engage in strategy and planning conversations which fuel the continued growth of this national coalition. The national nonprofit partners, with support from the Executive Committee, lead efforts to recruit new cities to join Cities for Citizenship.



Funding: Private Financing

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Tags: Service Delivery Improvement, Innovation,
Impact on City Economy



Cubic Transportation Systems and Chicago Transit Authority Fare Payment Partnership

Challenge: The Chicago Transit Authority (CTA) is the second largest transit agency in the United States and an indispensable service to the region with a ridership of more than 1.7 million daily. In addition to CTA, regional transit services are also provided by partner agencies, Metra commuter rail and Pace suburban bus – which both connect with CTA bus and rail in numerous locations throughout the region. In 2009, the CTA faced a dilemma with its 20-year-old fare payment system. Not only did obsolescence issues make it difficult and costly to maintain, the aging system didn't have the technology to meet legislative requirements for unifying the region's three major transit agencies onto a single system by 2015. The agency also wanted to focus on its core mission of moving people, not money, and introduce a future-proof system that would enhance the customer experience with new payment options including contactless bankcards and, eventually, compatible mobile phones, as well as the ability to store all kinds of fare products on one card.

Description: In 2009 the CTA went out to bid to upgrade its fare collection system to an Open Standards Fare System. In 2011 Cubic Transportation Systems was selected for a self-financed public-private partnership under a design-build-operate-maintain contract, which also required an account-based open payment solution. The contractual model is a comprehensive performance measurement system supporting a more cost-effective, scalable and accountable system. In the fall of 2013, the CTA, Pace and Cubic rolled out Ventra. The contract's second phase aimed at bringing the region's Metra commuter rail onto the system, complying with Illinois law for a universal fare system by 2015. Metra faced a Challenge: It is proof-of-payment and doesn't have a Ventra sales infrastructure. Cubic and the agencies proceeded with the logical next step—an app that essentially puts Ventra and Metra vending machines in their customers' pockets. On November 19, 2015, the Ventra App launched, allowing customers to pay for rides from their mobile devices. It is a one-stop app for planning journeys, paying, and receiving real-time alerts for public transit in the Chicago region.

Impact: Ventra has transformed the way people across Chicago take transit every day. It is a demonstration of a "smart city" initiative that can be achieved between the private sector and government to develop creative solutions to city challenges. The Ventra system has 100% share of the CTA and Pace ridership and as of May 2016 has processed more than a billion transactions since launch in late 2013. The Ventra mobile app has generated explosive growth and usage among riders since available for download on the app stores on November 19, 2015. It also has reduced costs associated with customer help calls and other costs including distribution of paper or plastic fare media. With Cubic's supporting services to manage and operate Ventra, the CTA has met its goals to modernize the agency's nearly 20-year-old outdated fare payment system while maximizing convenience and account security for its customers.

How-To:

The CTA-Cubic PPP is a model for other transit agencies wanting to improve their fare collection operations. Backed by Cubic's financing, the CTA did not have to advance any funding up front, enabling the agency to upgrade an antiquated system while delivering North America's first account-based fare collection and mobile solutions. The cutting-edge technologies, regional agency cooperation and private sector investment underpinning this successful PPP have created a model that the rest of the transit world aspires to, and can learn from and adapt to their specific requirements.

General Tips:

This was a first-of-its-kind system based on unproven technology and an unknown customer reaction, and implementation challenges existed. It also is a complex system that required multiple internal and external groups to be integrated into the planning process as well as address special fare programs. Adding to the challenges was the need to go live all at once, rather than implementing a staged rollout. Communications were also a challenge to educate riders on what an account-based fare payment system would mean to them since essentially nothing changed about how people would board a bus or train.

Lessons Learned:

- Focus on customer experience first and foremost; it's impossible to over-communicate with customers and an account-based system is different
- Treat special fare programs as their own major project
- Take advantage of data to guide the deployment process and begin the internal conversations early about data use
- Test, test and test and launch when ready
- An account-based transition is worth it

Funding: Private Financing, Federal Grants, General Purpose City Funds

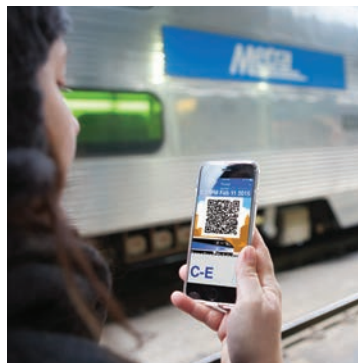
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Tags: Service Delivery Improvement, Innovation, Cost Savings



Emergent BioSolutions Invests in Tomorrow's Scientific Leaders

Challenge: Bridging the gap between jobs and graduates in the Science, Technology, Engineering and Math (STEM) fields is not a challenge that can be overcome with short-term solutions. The premise of companies in this space, such as Emergent BioSolutions, is to invest in young scientific talent and nurture their interest in STEM to enable the new scientific discoveries of the future. Emergent is a global specialty biopharmaceutical company that develops and manufactures vaccines and therapeutics. One-third of its 1,300-employee workforce is located in Lansing, Michigan, where the company has a manufacturing facility that produces the only FDA-licensed anthrax vaccine for pre-exposure and post-exposure prophylaxis of anthrax disease. Another one of its products, the Reactive Skin Decontamination Lotion Kit, is supplied to the FEMA US&R Teams, the National Guard, Federal Police and Protection Agencies and to several Fire/Emergency Management Services agencies around the country. RSDL is a patented skin decontamination product intended to remove and neutralize chemical warfare agents, T-2 toxin and organophosphate-based pesticides within 2 minutes.

Description: Emergent BioSolutions is one of the larger employers in Lansing. Emergent produces and supplies to the government medical countermeasures that address biological and chemical threats such as anthrax, botulism, smallpox, and chemical nerve agents, as well as emerging infectious diseases such as Ebola and pandemic influenza. In 2009, through efforts by Lansing Mayor Virg Bernero and the Lansing School District, the City of Lansing, Michigan qualified as one of ten Michigan Promise Zone Authorities due to the percentage of children under the age of 18 living at or below the federal poverty level in comparison to the state's average. That year, Legislation was passed to create these promise zones with the main goal of transforming communities by providing higher education at reduced or no cost to the students within them. The Department of State Treasury oversees all promise zones. Emergent is a proud supporter of the Lansing School District and education programs for Lansing's youth. Emergent believes that education is crucial to building a successful community and its employees are proud to be a part of ensuring that all Lansing children receive an exceptional education.

Impact: Since 2013, the company has donated more than \$160,000 to the Lansing School District and the Lansing Promise. Employees have volunteered with Sheridan Elementary School to paint school halls and install new audio-visual equipment in the gymnasium, as well as work to beautify the school's community garden. The company has been involved with the Lansing Promise since 2010 and has given financial support since 2014. Aside from monetary donations, Emergent helps promote the program by funding Public Service Announcements and coordinating advertising campaigns. With support from Emergent and other organizations and people in the Lansing area like Dean Transportation, the Lansing Regional Chamber and Earvin "Magic" Johnson nearly 500 Lansing students have gone on to become Promise scholars. Lansing Mayor Virg Bernero is a big supporter of the Lansing Promise and the Lansing School District. He worked with the Lansing School District to apply for the Promise Zone designation, and has assisted with fundraising efforts for student scholarships.

How-To:

Education is a strong foundational element to supporting and improving the Lansing community. We believe every child should have the opportunity to pursue their education. A significant component of Emergent's GIVE (Give, Invest, Volunteer in Emergent communities) corporate social responsibility (CSR) program is the unification of sites across the globe around its mission of building healthier and safer communities. One of the focus areas – Educating Tomorrow's Scientific Leaders – allows employees to encourage the youth to explore career paths in Science, Technology, Engineering and Math (STEM). To execute on this mission, our Emergent locations remain flexible in engaging with community partners, school districts, trade associations, and governments at varying levels. For example, the company hosts Manufacturing Day annually at its Lansing facility, and Camden and Bayview sites in Baltimore, Maryland open their doors to the community to showcase manufacturing jobs and provide manufacturing facility tours, poster sessions, and networking opportunities for students and residents alike. Every year, the company also hosts the Young Science Explorers at its product development facility in Gaithersburg, Maryland to conduct science career talks, hands-on experiments, and laboratory tours to local and sometimes visiting out-of-state middle and high school students. A common theme that contributes to the success of these STEM-related CSR activities is our employee engagement and enthusiasm. Our employees are committed to improving the communities in which they live and work and are passionate about the company's vision – protecting and enhancing 50 million lives by 2025.

Funding: Foundations and Philanthropy

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Tags: Education

Energy Systems Group – City of Baltimore Energy Efficiency and Infrastructure Improvements

Challenge: The Department of Transportation (DOT) provides the City of Baltimore with a comprehensive and modern transportation system. Among the DOT's key goals are to improve City lighting and to support the City's economic growth. The DOT's responsibilities include maintaining and preserving a safe and well-lit transportation network, overseeing about 80,000 street lights throughout the City of Baltimore. The Parking Authority of Baltimore City (PABC), which oversees the management of 17 parking garages and numerous lots throughout the city, partnered with Energy Systems Group (ESG) to implement innovative energy-efficient lighting installations that reduce energy consumption costs and enhance parking facilities.

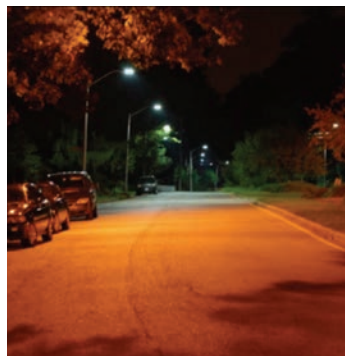
Description: Energy Systems Group (ESG), a leading energy services provider, developed comprehensive energy efficiency and infrastructure modernization measures throughout the City of Baltimore including building upgrades in city school facilities, installation of new traffic and crossing signals, and street lighting upgrades.

Impact: The innovative and energy-efficient LED street light installations reduced energy consumption by approximately 52 percent, resulting in annual energy savings of \$689,000 and annual operations/maintenance savings of \$1 million. This sustainable project also resulted in annual environmental benefits equivalent to the removal of emissions from more than 950 cars or generating enough electricity to power more than 600 homes. The ESG team converted existing garage lighting to more efficient fluorescent and long-life induction lighting, reducing energy consumption by 48 percent and resulting in annual energy savings of \$376,000 and annual operations/maintenance savings of \$69,000 over the term of the contract. As a result, the PABC significantly enhanced its garages and lots with high-quality, reliable, long-lasting, and virtually maintenance-free lighting.

Hillen Parkway: Old fixtures in background (yellowed streets) and new LEDs in foreground



Old fixtures in foreground and LEDs in background on Cross Country St.



700 block of N Fulton Ave: Old fixtures on left, LEDs on right.

How-To:

The DOT partnered with Energy Systems Group to develop a comprehensive lighting upgrade project and preventive maintenance plan for 11,000 cobra head fixtures and 115 shoe box fixtures. Mock ups from over 15 manufacturers were installed throughout the City and additional fixtures were provided to DOT maintenance staff to allow for evaluation of quality and potential maintenance issues. ESG and the City DOT spent many nights taking light level measurements and interacting with residents in order to gather details on how the upgrades would be perceived. ESG also worked closely with the City's media department to develop surveys in order to provide the City with direct feedback from residents. ESG created banners to be mounted on newly installed light fixtures which highlighted benefits of cost savings, energy savings, and enhanced lighting. As part of a comprehensive energy savings performance contract, Energy Systems Group also partnered with the City of Baltimore and the Department of Transportation to implement upgrades and energy-efficiency improvements for more than 1,300 intersections. ESG upgraded intersection lighting and countdown pedestrian timer systems resulting in improved signal visibility for drivers and enhanced crossing safety for pedestrians. These upgrades significantly reduced energy costs and maintenance requirements for traffic intersections, thereby allowing valuable resources to be directed to other maintenance projects. PABC and ESG worked together to select multiple fixture types, including several light-emitting diode (LED) models, to be installed in various garages for visual evaluation. This approach provided PABC staff the opportunity to see the options in operation so they could select the best solution for the City garages.

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact

Graffiti Resource Council – Tucson Mural Arts Program

Challenge: The challenge for every city is to develop a coordinated response to graffiti vandalism that includes eliminating the graffiti and deterring any future vandalism. Our research reveals that cities and municipalities can spend anywhere from \$1.00 to \$5.00 per person per year, cleaning up graffiti vandalism. In Tucson, as in so many cities and municipalities across the country, graffiti vandalism is prevalent on electrical boxes, trash containers and many other substrates.

Description: The Tucson Mural Arts Project focused on large trash containers that were repeatedly targeted by graffiti vandals and tagged over and over again. Consequently, the city of Tucson has historically spent considerable resources cleaning these trash receptacles multiple times. The Mural Arts Project developed a program to hire local artists to paint murals on the trash containers in order to deter future vandalism and eliminate the need to spend resources cleaning them up multiple times. The Tucson Mural Arts Project is a true public-private partnership. The coordinating organization is the Tucson Arts Brigade, a local non-profit with a strong history of developing multimedia art projects to beautify the city. Funding was provided by the City of Tucson Environmental Services and the Graffiti Resource Council. Once funding was secured, the Tucson Arts Brigade developed a protocol for soliciting “request for design proposals”, selecting artists, distributing art supplies, and managing the projects to completion and distribution of the trash containers in select locations around the city.

Impact: The impact of the Tucson Mural Arts Project is multi-dimensional.

1. Since these trash containers have been painted with murals by local artists, they have not been tagged at all. Consequently, Tucson is not spending any additional resources in cleaning graffiti vandalism on these trash containers;
2. The trash containers add beauty to the local community;
3. Local artists gain professional exposure and are provided a “canvas” that is viewed by residents every day; and
4. These murals promote stewardship and pride in the community.

Tucson Mural Arts Program
“The Thought of It”



Tucson Mural Arts Project “Skytime”



Tucson Mural Arts Project “Uprising”

How-To:

1. Identify a local arts organization that can develop and manage a mural beautification program;
2. Identify the focus of the project (whether it will be trash containers, large electrical boxes or other frequent targets of graffiti vandalism);
3. Secure public and private funding for artists and artists' supplies;
4. Develop the “Request for Mural Design Proposals”;
5. Develop a process to review proposals and select appropriate designs;
6. Establish a schedule for completion, including time to “seal” the murals prior to unveiling;
7. Unveil completed trash container murals;
8. Deliver trash container murals to their permanent locations;
9. Monitor these containers and periodically check to determine if they have been tagged or vandalized in any way; and
10. Record your findings.

General Tips:

Lessons Learned: Our experience has been that well-designed and painted murals do not get tagged or vandalized. Such mural projects eliminate graffiti vandalism, reduce maintenance costs, and foster an environment of stewardship and pride in the community. Photos of these trash containers were taken approximately 6 weeks after these containers were placed in areas with high pedestrian traffic and historically high levels of graffiti vandalism, such as a public parking lot downtown, an intersection near a grocery and another intersection near a child care agency. All of the containers are clean with no marks or any other graffiti.

Funding: Private Financing, Foundations and Philanthropy, General Purpose City Funds

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Increased Tourism

HDR, Inc. – Historic Fourth Ward Park

Challenge: Located in a lowland area, the urban watershed of the Clear Creek Basin that sits at the heart of Atlanta's historic Old Fourth Ward was subject to intermittent flooding and combined sewer overflows (CSO) during storm events. Direction for the project originated from conversations among citizens discussing local stormwater issues, and the subsequent design and planning efforts included hundreds of stakeholders. The project addresses the stormwater problem, helps relieve the need for greenspace and serves as a hub that links the community with other parts of the city and the Atlanta BeltLine. The BeltLine is a sustainable redevelopment project that provides a network of public parks, multi-use trails and transit along a historic 22-mile railroad corridor circling downtown and connecting 45 neighborhoods. Siting the stormwater pond and park in an underused and blighted area presented an opportunity to remediate a brownfield site, while providing a public park with an amphitheater and walking pathways to encourage health and wellness. Overall, the design restores natural systems and resources and the adjacent community is improved, consistent with the City's comprehensive plan.

Description: A partnership between Atlanta BeltLine, Inc. (ABI) and the Atlanta Department of Watershed Management (DWM), Historic Fourth Ward Park was one of the first components in the progressing BeltLine Project. The project has generated adjacent development and revitalization, providing the cornerstone for a sustainable, high-density and high-quality urban transformation along with an outstanding design solution for a serious CSO problem. Atlanta officials point to Historic Fourth Ward Park as a model for sustainable infrastructure and community enhancement. Atlanta's Department of Watershed Management points to the Historic Fourth Ward Park as an example of how CSO capacity relief can turn into a welcomed solution. "This transformative and innovative project has completely revitalized this community and it could not have happened without the support and partnership of Mayor Kasim Reed, the City of Atlanta Watershed Management and HDR, making the vision into reality." Paul F. Morris, Atlanta BeltLine, Inc. President and CEO.

Impact: "The Pond at Historic Fourth Ward Park represents the new approach the Department of Watershed Management is taking to maximize our infrastructure investments for environmental, economic and social sustainability," said Jo Ann Macrina, Commissioner, City of Atlanta, Department of Watershed Management. "The success of this project sets the stage for green infrastructure projects in progress across our city." The park saved the client an estimated \$50M. It restored an unusable parcel into a functional community park and providing neighboring development. An influx of housing and retail has dramatically changed the economic and social condition of the community. The iconic City Hall East building was vacant and dilapidated due to frequent flooding. It has since been reborn as Ponce City Market, restoring its prominence as a vital landmark. What began as a functional need to manage stormwater evolved into the restoration of greenspace that created a multi-functional community asset and spurred more than \$400 million in private development within a block of the park.

How-To:

1. Understand your options, opportunities and boundaries – and push them. A planned tunnel project could have taken care of the flooding, but collaboration with the community, consultants and the Atlanta BeltLine lead to a solution with far greater benefits and value for future development.
2. Work together – Listen to the community and include all stakeholders. The public outreach process for Historic Fourth Ward Park was a continuation of master planning efforts that involved significant input from participants in prior study group meetings, as well as coordination with the numerous local organizations. This process provided opportunities for Old Fourth Ward residents, businesses, and private stakeholders to contribute input to design concepts. Public meetings were held and resulted in a large response of individual comments submitted by mail, e-mail, and on comment forms. Ultimately, the community helped to translate the vision into park elements.
3. Consider the triple bottom line – quality of life, environmental sustainability and economic efficiency work together. Development of a park with a stormwater pond, rather than traditional sewer tunnels, saved the client an estimated \$50 million, while:
 - increasing the quality and quantity of recreational opportunities
 - improving community attractiveness for compatible businesses and industries
 - expanding connectivity
 - reducing the environmental impacts from constructing additional underground infrastructure
 - rehabilitating a brownfield site
 - establishing newly planted landscape and introducing biodiversity to the area

Funding: Private Financing, Public Financing (approx. \$24,600,000)

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Increased Tourism, Business Benefits



Health Care Services Corporation – Enhancing Care for Children with Asthma in Chicago

Challenge: Asthma is a chronic condition that affects more than 6.1 million children annually in the United States. The State of Illinois recognizes the growing burden of asthma on our schools, hospitals and businesses. A comprehensive “Burden of Asthma in Illinois” report, published every five years by the Illinois Asthma Partnership through the Illinois Department of Public Health, uses data from a variety of sources to measure air quality, COPD prevalence, emergency department burden, medication use, work-related burden and quality of life. The City of Chicago has focused on the increasing prevalence of asthma among Chicagoans. The city created the Chicago Asthma Consortium, a coalition of medical and public health professionals, business leaders, government agencies, community-based organizations, and individuals dedicated to improving the quality of life for people with asthma through advocacy, education and collaboration. Asthma management for African-American children, in particular, is a focus in Mayor Rahm Emanuel’s public health plan unveiled earlier this year, Healthy Chicago 2.0, aimed at improving health for Chicagoans living in the city’s at-risk communities.

Description: Beginning in 2012, Health Care Service Corporation (HCSC) joined with the American Lung Association of the Upper Midwest (ALA) to implement nationally recognized asthma-care guidelines at primary care health centers with high-risk patients, including physician offices, federally qualified community health centers, school-based clinics and other primary care clinics. Through the claims data of its eight million members across the state, HCSC’s Blue Cross and Blue Shield of Illinois plan identified 16 health clinics in Chicago treating a large number of pediatric patients with asthma that have high rates of hospitalization and emergency-related visits, representing a costly problem that is traumatic for children and their families. Those clinics took part in a two-year training program that used an evidence-based model for helping providers integrate recommendations for pediatric asthma care into primary care practice. The ALA hired clinical and public health educators to work directly with clinic staff and provided educational materials for young patients and their caregivers to improve their understanding of asthma, explain how to avoid triggers and how to properly take medication.

Impact: Through claims data analysis of the first 18 months of the program, the results of the effort have been impressive. In Chicago, claims data showed a 60 percent decrease in hospitalizations and 53 percent decrease in emergency department visits for pediatric patients of 16 clinic locations participating in the program. In addition, the clinics showed marked increases in quality baseline asthma management protocols, including documentation of asthma severity, use of patient self-assessment tools, controller medication usage review, development of an asthma management action plan, use of spirometry to measure lung output, and increased patient education. The response from health centers has been overwhelmingly positive. Many providers saw the need for better asthma management among their patients but did not have the time or resources to evaluate institutional problems and develop processes for introducing guidelines-based care. The program provided the operational guidance that health centers needed to implement best practices in pediatric asthma management.

How-To:

By partnering with an insurer or major health system, your city can identify high volume clinics and establish a good baseline for measuring success. The clinic training model is seamlessly reproducible and easily modified based on local needs and resources. The American Lung Association’s nationwide presence means similar partnerships for improving pediatric asthma management in other cities are also well within reach.

General Tips:

A concurrent program in New Mexico that included 12 clinics over two years in various cities showed surprising results as well, with an 80 percent reduction in both hospitalizations and emergency department visits. Houston, Texas and Tulsa, Oklahoma clinics also participated, with results expected later this summer. While HCSC used its member claims data to identify where large populations of children with asthma receive their care, it’s important to note that the program was not exclusive to Blue Cross and Blue Shield members – the project benefited all patients with asthma at the participating clinics. HCSC and the American Lung Association of the Upper Midwest plan to continue the effort for another two years, which includes recruiting 10 more clinics in Illinois and adding a new component to the partnership – home-based environmental visits for children whose asthma has not improved despite receiving improved quality of care. Experts will make home visits to determine whether there are allergens or irritants in the home preventing patients from better managing their asthma.



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Tags: Service Delivery Improvement, Cost Savings

IPS Group, Inc. – Tiered-based Pricing for the City of Sacramento

Challenge: By creating sound parking policies, the City of Sacramento developed a well-versed, balanced parking program to better serve business owners, residents, and visitors. The City's parking program has a long history-using the same hardware and techniques to manage their program for the past 70 years. Just 10 years ago, the City was using antiquated, coin-only mechanical meters limiting citizens to fixed parking rules. In the past, if a visitor stayed for longer than the posted limit, they'd receive a citation. The City wanted to provide a parking program that would encourage business, not dissuade it. The longer visitors stayed, the more opportunity to spend money, which could add to Sacramento's economic growth. Data collected during the 90-day pilot program confirmed that the majority of motorists parked within the posted time limit. However, any motorist who needed more time only stayed for up to an extra hour- comprising only 5% of motorists in the pilot. This pilot proved that by using the IPS technology, motorists who occasionally need to extend their parking time are able to do so, while promoting turnover. The tiered-based pricing offers motorists a convenient way to self-manage their parking needs. Time may be paid for or extended either at the meter or with a mobile payment application. It can be paid by phone, coin, or credit card, as well as receive online receipts to track their parking history.

Description: By using the IPS Smart Meter, Smart Sensors, and the Data Management System (DMS), the City could deliver tiered-based pricing program to its citizens. There were 2 components to the program, within 2 specified districts:

1. A tiered-based pricing structure for short-term parking meters
2. The removal of existing time limit regulations for short-term meters

The objective was to reduce traffic congestion, direct motorists to convenient parking, encourage short-term turnover and the use of on-street parking, and direct long-term parking to off-street facilities. Their pricing model consists of the following tiers:

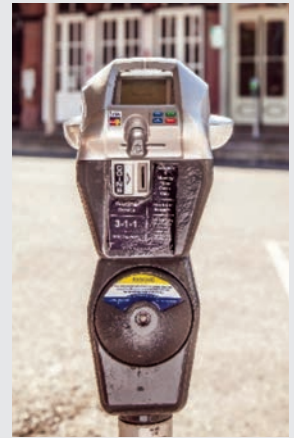
- Tier 1 - on-street, short-term parking to encourage high turnover. This pricing is the base meter hourly rate, up until the hour(s) posted on the signage. If motorists wish to extend their parking, they can move up to Tier 2.
- Tier 2 - where the garage pricing is in line with on street pricing so it evens the playing field (currently \$3 per hour). The Tier 2 rate is effective for up to one additional hour beyond the Tier 1 time limit.
- Tier 3 - 25% above the Tier 2 rate and becomes effective after the expiration of the Tier 2 hour and for each hour parked thereafter. So for a patron visiting the City who parks in a 2+ zone, he can choose to pay \$18 to park on street for the evening or choose to spend \$5-7 in a city garage. And the City can conveniently configure the tiered pricing remotely using the IPS Group DMS.

Impact: With the implementation of the program, the data suggests that they have reduced the number of overtime citation tickets issued. By using the data provided by the DMS, the City was able to derive the following statistics in a 90-day study.

- 9104 vehicles parked more than 90 days. Of the 9104 vehicles: 510 vehicles were in the Tier 2 pricing, buying more than the recommended stay.
- Of the 510, only 400 purchased one hour of additional time.

How-To:

Tiered-based pricing was implemented with the use of the IPS Smart Parking meters and sensors. These two smart devices work in conjunction with the IPS Group Data Management System (DMS) where the pricing can be configured from any web-enabled device.



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Tags: Service delivery improvement, Innovation, Environmental impact, Increased tourism, Business benefits

It's Time Network – Accelerating Gender Equality

Challenge: Despite many gains for women over the past century, gender inequality persists throughout every city in America. Women are still underrepresented in decision-making roles across all sectors, and face a variety of economic, social and political challenges. In May of 2016, It's Time Network produced the first-of-its-kind Mayors Guide: Accelerating Gender Equality and launched our Network City Program to create infrastructure for engagement and collective impact in cities across the country. The program is building a national network and tools to support mayors and municipalities in implementing actions that improve the status of women and girls in their cities.

Description: It's Time Network is building the first national cross-sector network where individuals and organizations can join together in the spirit of collaborative leadership and collective impact to accelerate gender equality for women and girls. The structure for building this national network is our Network City Program. Each Network City chapter is led by a Local Advisory Council (LAC), with It's Time Network (ITN) providing backbone support and dedicated resources and tools, including our first-of-its-kind Mayors Guide: Accelerating Gender Equality. This comprehensive guide provides mayors and other stakeholders with a “toolkit” of readily accessible information, recommendations, model programs, and checklists for supporting the advancement of women and girls in their communities. The guide will complement a city scorecard tool in development that can be used to evaluate progress on gender equality in each city. The combination of the Mayors Guide and the national network infrastructure fosters connections between individuals, local and national organizations and aligns the work of multiple cities to create a national network for change.

Impact: It is a unique time in our history, and the call for women's leadership and gender equality is rising. Mayors across the country have increasingly been answering that call, with some cities leading the way for decades. In June of 2015, It's Time Network sponsored a Mayors Roundtable in partnership with the San Francisco Department on the Status of Women. The event took place a day before the semi-annual U.S. Conference of Mayors in the host city of San Francisco to engage mayors and 150 local civil society leaders in discussions about actions and policies to improve the lives of women and girls. The outcome from this convening is the first ever Mayors Guide: Accelerating Gender Equality and the launch of the first network city chapter in San Francisco in 2016, with Denver to follow in 2017.



Women Mayors' Caucus at US Conference of Mayors, June 2015

How-To:

It's Time Network developed a localized model for impact in each city, while also serving as a backbone to develop resources such as our Mayors Guide: Accelerating Gender Equality, to unify each chapter in a national, networked structure whose power and potential for impact is exponential. To achieve this, the Network City Program model was designed for replicability and scale. Our pilot city launched in San Francisco in 2016 and is expanding to Denver in 2017. The blueprint for each Network City Local Advisory Council (LAC) serves as a uniform governance structure and set of requirements for eligibility, while providing enough latitude for each city to address its unique constituencies and particular set of opportunities to advance women and girls at the local level. The simple framework for governance currently includes:

Adherence to ITN Mission, Vision and Values

- ITN Network City Program ByLaws
- ITN Network City Program Handbook
- ITN Network City Program Governance Framework
- ITN Network City Program LAC agreements and application documents

General Tips:

ITN has developed the following criteria for participation in the Network City Program:

- Form a Local Advisory Council (LAC) comprising a diverse group of up to 39 individual and organizational leaders who represent the interests of women and girls across sectors.
- Operate in accordance with governance principles established by It's Time Network.
- Convene as an LAC monthly in-person or via phone.
- Commission a Baseline Report on the Status of Women and Girls at the local level.
- Grow the network's capacity for collective action and impact at the local level.
- Pursue and execute collective action opportunities in your city as an LAC.
- Convene Mayors Roundtable events in your city, as needed.
- Design and conduct additional initiatives, campaigns, and projects at will under the discretion of the LAC and that are aligned with It's Time Network's mission, vision and values.
- Attend the national It's Time Network summit as part of your city delegation and / or attend local satellite events in your city.
- Participate in national activities that are aligned with the overall mission, vision, values and goals of It's Time Network.

Funding: Foundations and Philanthropy

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Tags: Service Delivery Improvement, Innovation, Impact on City Economy, Business Benefits

The JPMorgan Chase & Co. PRO Neighborhoods Initiative

Challenge: JPMorgan Chase & Co. launched PRO Neighborhoods, a \$125 million, five-year initiative to identify and support solutions for creating economic opportunity in disadvantaged neighborhoods around the country. The initiative will invest in collaborative partnerships and innovative financial solutions to revitalize neighborhoods by growing small businesses, creating health and social service facilities, improving access to affordable housing and collecting better data to study changing neighborhood demographics.

Description: PRO Neighborhoods will help create more widely shared prosperity by providing the necessary capital to local community development organizations to address the drivers of economic opportunity in neighborhoods. Specifically, the initiative will include three areas of focus: Collaborative CDFI Partnerships: Too often, projects that can provide essential resources to distressed neighborhoods are unable to qualify for traditional financing. PRO Neighborhoods provides regional CDFIs with necessary capital that encourages them to work together so they can pool resources and expand lending activities. Affordable Housing Seed Capital: PRO Neighborhoods will support the development and preservation of housing for low- and middle-income families. This resource will provide critical seed capital to enable local partners to acquire, refurbish, and provide affordable housing. Data-Driven Neighborhood Solutions: Armed with high-quality data about land use, housing trends, and shifting demographics, PRO Neighborhoods will dedicate funding to research that helps cities better understand the most urgent problems facing disadvantaged neighborhoods.

Impact: While the initiative is ongoing, according to an impact assessment by The Harvard Joint Center on Housing Studies, JPMorgan Chase's 2014, \$33 million PRO Neighborhood pilot program focused on disadvantaged neighborhoods allowed 26 CDFIs to raise more than \$226 million, seven times the original amount, in additional capital for local economic and social service projects. This has resulted in \$100 million in loans, financing first-time home purchases, the preservation and development of over 2,000 units of affordable housing, lending to over 130 small businesses and creating and retaining 2,650 jobs.

How PRO Neighborhoods works to revitalize urban communities

PRO Neighborhoods

JPMorgan Chase & Co. works with local CDFIs to revitalize urban communities through the Partnerships for Raising Opportunities (PRO) Neighborhoods

What Are CDFIs?
Community Development Financial Institutions (CDFIs) work to bolster economic growth in low-income communities. They include banks, credit unions, loan funds or other institutions.*

JPMorgan Chase & Co.'s new \$125 million, 5-year program encourages CDFIs to take on specific community development challenges.

PRO Neighborhoods and Partners Work

- Affordable Housing**
Acquire and refurbish affordable housing so that more families can put down roots.
- Thriving Local Businesses**
Develop retail centers, invest in small businesses and support minority and women-owned entrepreneurs.
- Community Services**
Fund childcare centers and health clinics so families can access critical services close to home.
- Healthy Food**
Finance the development of affordable grocery stores so families won't have to travel far for good nutrition.
- Access to Education**
Invest in training and apprenticeship programs as well as charter schools.
- Banishing Blight**
Restoring beauty to distressed communities by removing run-down buildings and rehabilitating others.

A Proven Track Record

In 2014, JPMorgan Chase piloted a \$33 million CDFI program. According to a study by The Harvard Joint Center on Housing Studies, that initial investment later attracted \$226 million more in investment capital from other sources, dramatically increasing the scale of important projects.

How-To:

Our goal in establishing PRO Neighborhoods is to ensure that opportunities for prosperity are extended to struggling neighborhoods and the families that live there. But to leave a lasting impact, we must invest in partnerships around the country that will connect neighborhoods and families to economic opportunity and make on-the-ground connections with important community organizations that can best accelerate any neighborhood's rebirth. PRO Neighborhoods brings Community Development Finance Institutions (CDFIs) together to jump start community and economic revitalization in neighborhoods challenged by blight or gentrification. The initiative will encourage CDFIs to foster collaboration and investment in resources that help neighborhoods thrive and grow, such as small businesses, health and education facilities, retail centers, and essential services. PRO Neighborhoods will also support new, innovative financing models for the development and preservation of housing for low- and middle-income families, as well as commission high-quality research to understand the implications of shifts in neighborhood demographics. Armed with high-quality data about land use, housing trends, and shifting demographics, communities can better understand the most urgent problems and create targeted solutions.

Funding: Foundations and Philanthropy

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Tags: Innovation, Impact on City Economy, Business Benefits

KIVVIT – Recruiting a Diverse Police Department Through Digital Outreach

Challenge: This past winter, candidates were invited to apply to the Chicago Police Department for the first time in three years. However, despite proactive efforts from the Chicago Police Department (CPD), their pool of minority candidates shrank rapidly over the last five years and was set to run out before the scheduled February 2016 exam. Additionally, the previous marketing push proved ineffective in reaching minority audiences and confusion with the application process itself made prospective candidates lose interest early. One of the key components of public safety is public trust. Maintaining a police force that represents the community it serves is a top priority in Chicago and across the country. A police department that reflects the ethnic, gender and racial makeup of the communities it serves helps to build trust and improve relationships. Commitment to encouraging diversity in the police force has immense value both internally and externally.

Description: Kivvit was hired by the City of Chicago to construct a creative and impactful campaign that made direct personal appeals to minority applicants and communicated the benefits of working for the CPD. To support this goal, Kivvit created a marketing campaign to attract applications through easy-to-understand messages and visuals and helped organize an outreach campaign that got stakeholders personally involved.

Impact: The campaign saw 14,200 individuals apply with 71 percent being minority applicants. That represents a 13 percent increase in the share of minority applicants. This was an important first step on the path toward better connecting communities and law enforcement, and building a safer Chicago.

How-To:

To build a foundation for our messaging, Kivvit conducted in-depth interviews with recently recruited minority officers to learn about their experiences and what motivated them to become an officer. Additionally, we tested sample messages and campaign taglines with small focus groups (CPD officers, community stakeholders, youth groups) to determine which messages were the most persuasive. Using the research as our guide, Kivvit created a communication plan that outlined key messaging and designed all the creative collateral materials for the campaign, including:

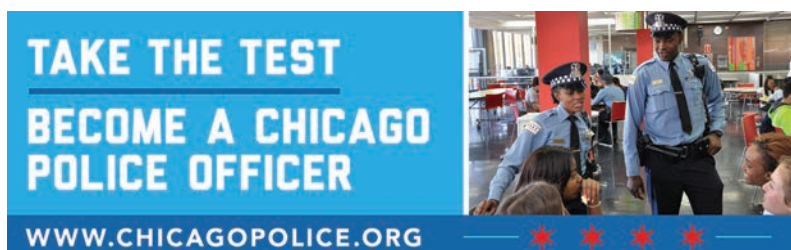
- Digital banner ads
- Billboards
- Flyers
- Posters
- Palm cards
- Spanish language materials

Specifically, Kivvit developed a paid digital advertising plan – something the City of Chicago had never undertaken before – aimed at reaching possible minority applicants through targeted neighborhoods and zip codes. Kivvit also worked with the City to create a mobile-friendly application process and built a mobile-specific landing page for the digital banner ads to collect emails and phone numbers for future follow-up.

Kivvit - Chicago Police Spanish Billboard



Kivvit- Chicago Police ad



Kivvit - Chicago Police billboard

Funding: General Purpose City Funds

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Tags: Innovation, Public Safety

MuniServices Implements a Business Tax Compliance and Discovery Program in the City of Vancouver

Challenge: MuniServices is one of the few firms in the US to provide revenue enhancement and information services exclusively to local governments. The offerings encompass all general fund revenue and fee types. This includes Business License and B & O Tax Compliance, Utility Tax Oversight, Hotel Tax & Vacation Rental Review and Sales Tax Analysis Reporting Services. The firm has a record of providing consistent and quantifiable results in the State of Washington. The new found tax revenue from MuniServices programs directly funds community programs and services. The City of Vancouver collects various business taxes and business license fees within an urban area that is home to nearly 170,000 people. The City sought the expertise of an experienced firm that works with the public sector to provide discovery and compliance auditing of the City's business programs and funds collected.

Description: The City of Vancouver partnered with MuniServices to implement a business tax recovery program that includes a two-fold purpose: First, for MuniServices to "discover" and identify non-compliant entities and to focus efforts to bring these entities into tax compliance; and second to verify "compliance" and proper amount of payments from a taxpayer. The compliance audit includes a thorough examination of the taxpayer's financial records and documents.

Impact: MuniServices project complemented the City's staff by pursuing a discovery program that takes an educational and business friendly approach and has yielded very significant results without taking valuable staff time away from City staff and allowing them to focus their time on other high priorities. MuniServices has partnered with the City of Vancouver since 2011 and to-date has "discovered" and helped over 305 businesses come into compliance with their business license requirements.

How-To:

- Establish Joint Project Goals and Work Plan: MuniServices tailored the program for the City to minimize the utilization of City personnel staff time required for interfacing for both discovery and compliance services. MuniServices maintains close communication with the City to ensure that ordinance interpretation and potentially "sensitive" taxpayer issues are handled in a suitable manner.
- Ordinance Reviews & Audit Guide Development. MuniServices team reviews City ordinances and State laws impacting the collection and/or audit of any applicable taxes or fees to be included in the project.
- Business Inventory Development and Validating Leads. An inventory of businesses subject to the City's ordinance and taxation is built and maintained by MuniServices to ensure accuracy of taxes owed and collected.
- Lead Generation & Approval. A prioritized report listing those taxpayers that appear to be at the highest risk of non-compliance is developed. The City was involved in the parameters and approval for the list of businesses subject to the audit. MuniServices also worked with the City to draft and obtain approved letter notification templates to send to taxpayers
- Payments, Collections Process & Tax Calculation. Once MuniServices receives all required documentation for a specific account, a tax calculation is made and an invoice is created for the taxpayer. All payments are received and processed by MuniServices' Receipts and Control department (R&C). MuniServices undergoes an annual SAS 70 Level II audit for compliance of cash handling and data security procedures. MuniServices provides status reports to the City that includes detailed information on project activity and up to date results.

General Tips:

With over 35 years working with nearly 1000 local jurisdictions in the Country, the high quality data management system, and proprietary tax investigation techniques are contributors to MuniServices excelling in the area of revenue enhancement. MuniServices is professional, educational and taxpayer friendly. Beginning each program with an established work plan and open communication contribute to the success of projects. The project approach is holistic and although limited City staff time and resources are needed the Vancouver's Treasurer, Finance Director, City Manager, City Attorney and Business License team have been part of early and ongoing discussions with MuniServices to ensure success as well as care for the City's business community and residents.

Funding: Self-Funding

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Tags: Innovation, Cost Savings, Impact on City Economy, Business Benefits, Local Business Compliance



ShotSpotter Pilot in New York City

Challenge: Since the advent of Compstat in 1994, New York City has seen record decreases in violent crime, successfully transitioning to become the safest big city in America. But even one victim is too many. As a law enforcement agency, it's the NYPD's job to continually find innovative solutions to further reduce gun violence. No police department can address gun violence without having detailed information about when and where it happens. For the NYPD, information about each incident is valuable to day-to-day enforcement operations – in immediate response, subsequent investigations, and long-term data analysis. Having adequate information on gunfire violence is critical to the NYPD's long-term violence reduction strategy. Despite the critical importance of knowing about gunfire events, many incidents aren't reported to 911. This lack of information prevents the NYPD from taking immediate response, potentially saving lives; and precludes the collecting of critical evidence and from understanding broader trends in gun violence. Given the majority of gun violence occurs in limited geographic areas, this lack of information disproportionately affects the city's most vulnerable citizens.

Description: In order to improve NYPD's access to information on gun violence, the NYPD looked to see if new methods existed to detect and report incidences of gunfire. In March of 2015, the NYPD initiated a pilot program with ShotSpotter, an acoustic surveillance gunshot detection technology. ShotSpotter acoustic sensors were deployed on top of buildings and city-managed telephone poles to detect incidences of outdoor gunfire across 15 of the most historically violent square miles of New York City, in Brooklyn and the Bronx. When a gunshot incident occurs, ShotSpotter sensors detect the sound, triangulate the location, and notify a ShotSpotter technician working in the SST Inc., Incident Review Center in California. The technician analyzes the recording and soundwave signature to verify if there was probable gunfire. Each sensor captures the precise time, location, and audio snippet with boom and bang sounds. Once the technician validates the incident, ShotSpotter interfaces with NYPD's Domain Awareness System (DAS) to push an alert, and internal NYPD staff inform Communications and alert responding officers. These notifications are sent to the NYPD within 45 seconds of the actual shooting.

Impact: The first year of the pilot, over 2,100 shots-fired events were detected by ShotSpotter, (approximately 2/3 had no accompanying 911 call), meaning these incidents would not have been known to the NYPD without ShotSpotter. Even for incidents where citizens called 911, ShotSpotter alerts came in 57 seconds faster- a critical time advantage for medical and enforcement intervention. ShotSpotter's triangulation technology can provide a more precise location (within a 25-meter radius) than callers who may have only heard the sound of gunfire. Shell casings recovered from ShotSpotter alerts often match casings found at other crime scenes, providing NYPD detectives with valuable leads to link cases that would otherwise remain unconnected. Since the NYPD implemented ShotSpotter just over a year ago, NYPD officers assigned to plainclothes enforcement ("anti-crime team") in Brooklyn's 75th Precinct removed three loaded semi-automatic handguns from the streets that were directly related to ShotSpotter alerts. Importantly, ShotSpotter data is integrated into Compstat meetings, providing commanders with necessary information to devise strategies that respond to and prevent gun violence.

How-To:

The NYPD and ShotSpotter took a few key steps to ensure successful integration of the technology. First, ShotSpotter provided NYPD with access to an Application Programming Interface that allowed the NYPD to integrate ShotSpotter alerts into its own internal software platforms, including, the Domain Awareness System. Second, NYPD rolled out the first phase of ShotSpotter in a limited geographic area to make sure potential issues were worked out on a smaller scale before larger deployments. This pilot phase allowed time to address a few minor issues in how alerts were being shared and recorded and gain a better understanding of how the technology could complement the Department's existing operations. Third, a team of technical experts from the NYPD's project team visited and contacted dozens of cities utilizing ShotSpotter. Through these sessions, the NYPD obtained a comprehensive list of best practices, as well as positive/negative feedback that helped shape the pilot program. After the pilot went live, the NYPD continued participating in informal online working groups with other cities to continually expand ways it can track and address gun violence.

General Tips:

Integration of the ShotSpotter technology with NYPD's Domain Awareness System (DAS) allows all involved personnel to listen to the audio collected from the gunfire detection, providing further clarification on location, numbers of firearms involved, and numbers of rounds fired. This information can have important investigative value and can also help to ensure that officers responding to an event approach both prepared and with caution.



Graphic diagram depicting how ShotSpotter sensors triangulate gunshots

Funding: General Purpose City Funds

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Tags: Service Delivery Improvement, Innovation

PG&E Expands Long-Standing Relationship with the City of Oakland by Including Non-Profit Partner Kiva

Challenge: For more than a century, Pacific Gas and Electric Company (PG&E) has worked closely with the City of Oakland. Today, PG&E and the City of Oakland are partnering on numerous initiatives that support a continuum of educational, vocational training and local economic development programs to invest in students on the college track and help people move into jobs that improve quality of life and reduce violence. By partnering with the City of Oakland and the non-profit microfinance organization, Kiva Oakland, PG&E is expanding its reach to include support of small businesses and low-income entrepreneurs, which will help improve the local economy and create jobs.

Description: The public-private partnership between PG&E, the City of Oakland and Kiva Oakland, demonstrates a best practice of how by working together and maximizing individual strengths organizations with shared interests can bring tremendous change to local communities. Kiva is a non-profit organization that connects small businesses with a global community to provide loans, with a mission to alleviate poverty. Kiva's microfinance program leverages the funding power of an online network to invest in local small businesses. Small businesses are often denied loans through traditional banks to start and sustain their business. PG&E is partnering with Kiva to grow a strong foundation of support for small businesses in Oakland, the majority of which are minority-owned and women-run businesses.

Impact: Kiva Zip Loan Program makes micro loans to small Oakland businesses through an internet platform that enables individual lenders around the world to crowd fund interest-free loans directly to small business owners – micro-enterprise borrowers with strong business plans who are not eligible for conventional lending. Kiva is a major initiative of Oakland Mayor Libby Schaaf to promote and support local economic development. PG&E is providing funding over the next 3 years for local entrepreneurs who help stimulate and contribute to Oakland's economy by creating new opportunities for employment and reinvestment in communities. Not only will this funding cultivate small businesses that are working on developing technologies such as EV chargers, battery storage, and energy smart devices, but it will help grow those companies providing services such as printing, catering, and janitorial, all of which present future job opportunities for the local economy. By working with Kiva, PG&E will also be able to expand its opportunities to share energy efficiency programs and rebates by working closely with small businesses that need help saving on their bottom line.

How-To:

The long-standing relationship between the City of Oakland and PG&E makes it possible to expand the public-private partnership by including a local non-profit organization, like Kiva Oakland, with a proven track record of successfully investing in small businesses. Support of initiatives that result in tangible benefits to local communities and economies takes building trust and maintaining relationships over time. Supporting Kiva Oakland is simple and can begin with a modest investment. People can choose a small business borrower online, make a loan, get repaid and reinvest to repeat their lending support. One hundred percent of each investment goes directly towards funding loans, with a repayment rate of 98 percent. As these businesses are funded from people on the website, the businesses can eventually graduate to larger streams of capital funding to grow their business and employee base.

General Tips:

PG&E is committed to being an integral part of the local communities where its employees live, work and serve. By investing in small businesses and supporting local initiatives, PG&E can help create more jobs, support the local economy and sustain a fruitful environment for the future of our local cities.

Funding: Foundations and Philanthropy

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Tags: Innovation, Impact on City Economy, Jobs Created, Business Benefits

Philips – A Brighter Birmingham: A Lighting Partnership Plan

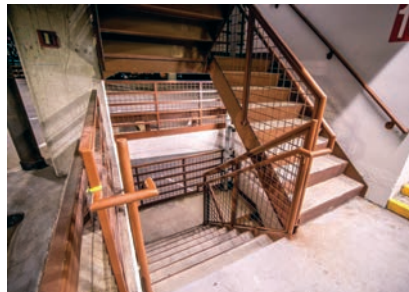
Challenge: Mayor William Bell is well underway realizing his vision for how to revitalize infrastructure in his city despite limited budgets. And his inspiration has come from some surprising places. He returned from a trip to Europe and announced to staff that he wanted Birmingham to look like Prague. But his vision went beyond aesthetics. Mayor Bell had additional goals regarding public safety, building community and modernization of the City's infrastructure. The plan also needed to provide a quick Return on Investment and sustainable savings, while initial investments needed to be kept at a minimum. With a focus on the local economy, he sought to utilize local construction and engineering talent.

Description: As a result, a four point lighting plan was written:

1. Retrofitting/upgrading 7 city parking garages with LED fixtures
2. Upgrading the city's streetlights to LED's
3. Improving park and architectural lighting throughout the city
4. Upgrading highway lighting to LED's

The plan carefully uses public funds through an innovative financing model comprised of energy savings and services eliminating the need for capital money. From the beginning, the Mayor's team worked closely with the Philips government affairs team. Throughout the process, the Mayor had one person on point to field questions, keep the project on track and aligned with City priorities. Both the City and Philips worked together to keep the City Council and the Parking Authority informed. Another key element was using a local construction and engineering team who was very familiar with the parking decks and the City. This was not only positive for the local contractor who is gaining advanced technology experience but it created peace of mind for elected officials keeping a local, professional presence for the projects.

Impact: The parking garage retrofits are estimated to save nearly \$375,000 annually in energy AND maintenance costs. The garages are safer too. They feature new, motion detection sensor technology creating a greater sense of safety by turning up the lights when there is motion in the garage and keeping the lights down when there is no motion helping to generate additional energy savings. The sensors reduce loitering time in and around the garages. Beyond the financial savings and positive environmental impact, the parking garages are creating a new buzz about downtown. Within just five days of the first parking deck being completed, the garage attendants reported a noticeable increase in utilization of the garage. Downtown business is complimentary of the project too saying that the LED upgrades make the formerly old and rundown, dark garages look brand new, modern and inviting. Due to all the positive feedback, the City changed its construction plan sequence to address the garages near the convention center and in the theatre district predicting positive impact for downtown businesses. The city is sending a clear message to everyone; downtown is beautiful, safe and open for business!



How-To:

1. Lighting Plan developed
2. Garages audited for energy savings and construction needs/ formal proposal presented to the city
3. Lighting Plan presented and approved by City Council and Mayor's team
4. Financing Secured
5. Final Council review
6. Parking authority final review and approval
7. Pre-construction meeting(s)
8. Begin installation

General Tips:

The retrofits were financed through the energy savings, allowing for the city to execute the LED upgrades with NO capital dollars. However, the contract vehicle is designed to accommodate future advancements in technology and can be adjusted to a "lighting as a service" agreement yielding additional savings and local jobs for the city.

Funding: Private Financing

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created, Increased Tourism, Business Benefits, Public Safety and Infrastructure Improvements

SEIU Local 775: Community-Based Labor Standards Enforcement

Challenge: Over the past two years, the city of Seattle has adopted four substantial new labor protections: a \$15 minimum wage, a wage theft ordinance, a fair chance employment (“ban the box”) ordinance, and paid sick and safe time. These are significant victories for low-wage workers in Seattle, but for these workers’ rights laws to be effective in raising workplace standards, a robust and extensive enforcement system is critical. In September 2014, the city created the Office of Labor Standards (OLS) to enforce the laws. However, the city has recognized that a government office and investigators are not sufficient on their own for effective outreach, education and enforcement. OLS must also work in collaboration with community-based organizations that have access to, expertise working with, and the trust of low-wage workers and their communities.

Description: In July 2015, OLS launched a new Community Outreach and Education Fund, with an initial allocation of \$1 million in city general funds to expand outreach, education and technical assistance to Seattle’s workers about their rights under the new labor standards laws. Through an RFP process, the city awarded grants in September 2015 to 10 different nonprofit organizations and community partnerships serving low-wage working communities that disproportionately experience workplace violations. In announcing the grants, Mayor Murray noted “[t]hese new community partnerships will help educate workers to ensure they understand their rights and receive the wages and benefits they deserve.” The director of OLS stated the grants “will dramatically strengthen our reach and impact.”

Impact: The initial round of funding has enabled the community organizations and partnerships to get their work underway and have significant impact in a short period of time. As only one example, one grant recipient—the Fair Work Center—has convened and coordinated the Fair Work Collaborative, a coalition of 10 community-based organizations that work together to conduct outreach and education to low-wage workers (primarily women, people of color, and immigrant and refugees). In its first five months, the Fair Work Collaborative has held more than 80 “Train the Trainer” and “Know Your Rights” workshops and community presentations and events, as well as conducting dozens of worker intakes—directly engaging nearly 3,000 workers, community organization staff, and community members. Although the initial impact of this work has been significant, the mayor, City Council, and the Seattle labor enforcement standards coalition (a broad coalition of labor and community leaders) all recognize that substantially more funding for OLS and for community organizations is critical to protecting Seattle’s most vulnerable populations.

Ahmed training with Muses



Fair Work Center Banner



2016 Allyship Train the Trainer



How-To:

As of April 2016, the mayor and City Council are considering various proposals for expanded funding for OLS and its Community Outreach and Education Fund. To date, funding has come from the city’s General Fund. However, in November 2015, several Council members introduced a Statement of Legislative Intent to establish a dedicated funding source for labor law enforcement. SEIU and its partners in the Seattle labor standards enforcement coalition are advocating for a proposal that would create this dedicated funding stream by adding a very small fee—a penny for each employee-hour worked—to Seattle’s business license fee. The penny-per-hour fee would cost employers only about \$20 per year for full-time employees, but would generate between \$5 million and \$6 million in revenue to fund enforcement of Seattle’s workers’ rights laws. This dedicated and expanded funding source would contribute significantly to ensuring protections for low-wage workers and leveling the playing field for law-abiding employers.

Funding: General Purpose City Funds

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Tags: Impact on City Economy, Jobs Created, Business Benefits, Labor Standards

Severn Trent – Danville, VA: Northside Wastewater Treatment Plant

Challenge: Severn Trent has operated Danville's 20 MGD Northside WWTP since 2009, plus 11 pumping stations, as well as administered the City's industrial pre-treatment program. The partnership between Danville and Severn Trent has led to operational improvements coupled with significant savings in both operational and capital expenses. It serves as a great example of cooperation and innovation to address utility issues faced by a city.

Description: Severn Trent has continually worked in close cooperation with Danville's utility staff and the City's engineers to address a series of operational and design/construction issues at the Northside plant over the last seven years. Leveraging our team's intimate knowledge of the plant's processes and performance, the City was able to achieve operational improvements and implement facility upgrades at a fraction of their originally projected costs.

Impact:

- A conversion of the treatment process increased capacity at the Northside plant by 13%, at a cost of less than \$30,000. This capacity increase is worth \$7.8 million at today's construction prices.
- Implementation of a new biosolids handling approach resulted in annual savings of \$141,000 from the first year of the contract, with all savings accruing to the City.
- An equipment replacement project was completed directly by Severn Trent staff at a cost of \$40,000, or one-third of the contractor's estimate of \$120,000.
- A process redesign resulted in annual power consumption savings of \$40,000.
- A process upgrade to increase nitrogen removal was delivered at a savings of 89% compared with contractors' estimates, and resulted in savings of \$75,000 in annual operating costs – as well as an 80% reduction in the levels of total nitrogen discharged into the Dan River.

Danville VA Northside WWTP



How-To:

- Severn Trent's Technical Solutions Group worked with the City's engineers to develop recommendations as part of the conversion of the plant's aeration basin upgrade from liquid oxygen to dissolved aeration.
- On Day 1 of the contract, Severn Trent encountered a significant biosolids backlog. Within the first contract year, Severn Trent identified and implemented a new process to decrease biosolids disposal costs by \$141,000, with all savings going directly to the City. This process and the ongoing re-bidding of land application sub-contractor services has continued to decrease these costs over the life of the contract.
- Severn Trent employees replaced two 54"x54" stainless steel chlorine contact gate valves in November 2012, eliminating the need to engage a general contractor.
- In April 2013, a non-potable water distribution loop was completed by utilizing existing piping and valves. This allowed for the deletion of two 70 HP motors from the non-potable water system.
- Severn Trent personnel began an anoxic system pilot in 2013 with the goal of increasing nitrogen removal while reducing chemical and energy consumption. The data resulting from this trial convinced our client to invest in floating mixers and the necessary related equipment to change the biological process to an anoxic system.

Funding: Private Financing, General Purpose City Funds

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Tags: Service Delivery Improvement, Innovation,
Cost Savings, Environmental Impact

SIEMENS – Landfill Gas Powers Homes while Reducing Costs to the City of Lamar, Missouri

Challenge: The City of Lamar is located 110 miles south of Kansas City in southwestern Missouri. Lamar is best known as the birthplace of President Harry Truman and the town where Wyatt Earp first worked as a constable. With a population of 4,500, Lamar is a quintessential picture of the American heartland. What makes Lamar unique for a community of its size is that it embraces cutting edge energy technology and environmental responsibility. The town owns and operates a waste-to-energy plant at its municipal landfill and exports power to more than 2,000 homes in the city. The Lamar landfill accepts approximately 1,650 tons per day of predominately municipal solid waste (MSW) from a six-county area. The primary sources of the MSW are residential, institutional and light commercial waste. In 2010, the City landfill team installed two 1.6 MW gas engines to run on the methane produced by the waste stored in the landfill. Due to ongoing landfill expansion, there was additional landfill gas (LFG) produced to fuel two additional reciprocating gas engines.

Description: After careful evaluation and analysis of potential reciprocating gas engine generator options — including gas engine generator sets operating at the site — the City of Lamar selected Martin Machinery to install two Dresser-Rand (a Siemens business) LFG-fired Guascor® HGM 560 engine gen-sets, each rated at 1,350 kW, to produce the additional high-efficiency power needed. Robustness, fuel flexibility and efficiency of the Guascor engine, coupled with improved service and support capabilities of Martin Machinery, were key factors in the City's decision to install Guascor engines. The maximum hourly heat input rate is 11.2473 million British Thermal Units per hour (MMBtu/ hr.) each (3,295 kW per hour). With a fuel heating value of 479 Btu/ scf (505 kJ/nmc) for the LFG, the amount of LFG combusted by the engine at 100% loading is calculated to be 0.02348 mmcf/hr (664.48 nmc/hr). These engines have averaged 97% availability since being commissioned. Engine performance, as well as support and service provided by Martin Machinery, a partner of Dresser-Rand, have exceeded expectations.

Impact:

- Reliable and resilient power for the community
- Heightened quality of life through a better managed landfill
- Increased green energy footprint for City of Lamar; Enough to power 2,200 homes or industrial facilities at competitive and stable costs
- Reduced landfill flaring (minimal or zero)
- This 2x1.35 MW Clean Energy project represents following Equivalent Emissions Reduced:*
- Methane emissions by 5,379 ton annually
- CO₂ emissions by 0.1220 MMTCO₂ E/yr
- Coal consumption by 654 rail cars equivalent annually
- Gasoline consumption by 13.7 million gallons per year
- Highly reliable, high efficiency, proven landfill gas engines reduce the cost of power produced with better engine support and service

*EPA LFG Energy Benefits Calculator (www.epa.gov)

How-To:

The City of Lamar had two reciprocating engines running in the first phase of the project for several years allowing for accumulated lessons learned.

For the second phase, the City evaluated multiple reciprocating gas engine brands and decided, based on demanding evaluation criteria, to select Dresser Rand's Guascor reciprocating gas engines.

Without gas cleaning, landfill applications are especially difficult on gas reciprocating engines. Even with gas cleaning to remove the majority of undesirable landfill gas constituent, biogas entering the reciprocating engine still contains certain levels of undesirable landfill gas constituents. While reciprocating gas engines are designed to withstand damaging properties of these constituents (with certain limits), special maintenance schedules and programs still need to be developed to prolong the life of the reciprocating engine.

Biogas constituents also need to be continuously monitored so that immediate measures are implemented in the event of a major fluctuation in the level of undesirable constituents above the limits established by the engine manufacturer.

Therefore it is critical for a successful landfill application (for desired performance and long life) to select the right prime mover technology/brand (with proven experience). Additionally, it is important to:

- Select the right size (kw) for the biogas available
- Clean and bring the undesirable landfill gas constituents to acceptable levels
- Closely monitor the biogas constituents to take immediate measures when limits exceeded, and follow closely follow the manufacturer's maintenance program



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Tags: Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Business Benefits

SUEZ Middletown, PA Operations Concession Plan: A True and Innovative Public-Private Partnership

Challenge: Municipal officials all over the United States are facing increasingly complex and costly drinking water and sewer regulations. Stringent government standards pose major financial and compliance challenges, especially for boroughs with aging infrastructure like Middletown, Pennsylvania

Description: SUEZ entered into a solution model with Middletown Borough and made an initial payment of \$43 million, providing financing of another \$83 million in system infrastructure improvements over the life of the fifty year contract. The purpose of the contract was to provide significant investment to Middletown's critical infrastructure leading to continued improvements in water quality and reliability. The goal was to bring a greater sense of economic well-being to Middletown. Our belief that the SUEZ' "solution model" will make Middletown a better place to live and to do business. SUEZ' solution models offer municipalities across the U.S. a new long-term operations and financing model to meet the challenges of current and future water needs.

Impact: As an innovative public-private partnership organization, SUEZ is dedicated to environmental services and making a profound difference in the way that water and wastewater services are provided to clients. Our commitment to the communities we serve come from a strong organization dedicated to excellence. "Commitment and Customer Service" are important words that are at the very core of SUEZ. Environmental excellence is also critical to the Company's performance. Every day, SUEZ is diligent in meeting all applicable laws and regulations, to ensure water and wastewater quality are maintained and adhere to regulations set forth for public health and safety.



SUEZ Capital Improvements Artifacts on Display at 1st Year Stakeholder Meeting



SUEZ Middletown Operations employees

How-To:

The Middletown Borough retained ownership of its water and wastewater system and provided oversight of the partnership and its adherence to high quality standards and customer service performance. By making infrastructure improvements, the Middletown Borough continued to maintain control of the rates charged to the customers

Funding: Private Financing, Concession Model

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Tags: Service Delivery Improvement, Innovation

SunEdison – Solar for New Bedford, Massachusetts

Challenge: In the process of becoming a leader in renewable energy, the city will save its citizens \$30 million in electricity costs over the next 20 years. New Bedford is now recognized nationally as a leader in renewable energy, and ranks first per capita among municipalities in the continental U.S. in its use of solar electricity.

Description: SunEdison, the world's largest renewable energy development company, in partnership with BlueWave Capital, a Boston-based solar developer, completed a 4.1 megawatt (MW) DC solar power plant for the city of New Bedford in July 2015. SunEdison and BlueWave Capital have now installed 16 MW of solar for New Bedford and enabled the city to achieve its ambitious goal of generating two thirds of its electricity from renewable sources.

Impact: The solar power plant is expected to supply the city of New Bedford and Cape Cod Community College with enough electricity each year to power more than 460 homes and should eliminate the emission of approximately 3,700 tons of carbon dioxide, the equivalent of taking more than 706 cars off the road. The City and College are purchasing the solar energy through a 20-year power purchase agreement.



Mayor of New Bedford Jon Mitchell speaking at the project ribbon cutting ceremony.



The 4.1 megawatt project is expected to save New Bedford \$30 million in electricity costs over the next 20 years.

How-To:

The solar power plant is located in Dartmouth, Mass. in the New Bedford Business Park and is named after Tom Davis, former executive director of the Greater New Bedford Industrial Foundation. Mr. Davis, a long-time leader in the New Bedford area, played a prominent role in the development of the solar park and was onsite at the project commissioning today to witness the unveiling of the solar park sign that bears his name. The power plant is one of the 12 projects SunEdison developed with BlueWave Capital. The organizations partnered to develop the project, arranged construction financing and permanent financing, and managed local partners to provide EPC services. Operation and maintenance of the solar power plant is performed by SunEdison Services, which provides global 24/7 asset management, monitoring and reporting services.

Funding: Private Financing, Federal Tax Credits, State Grants

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created

“Evesham Saving Lives” – Evesham, NJ and Uber Partnership

Challenge: Cities across the country struggle with drunk driving or safety issues, and Evesham, New Jersey was no exception. Prior to its partnership with Uber, the township had a program in place to access a free shuttle system, funded by a private foundation. However, this program was underused and therefore had only a small impact on reducing the amount of alcohol related incidents in the town. The city saw an opportunity here to improve this service, save a more money, and hopefully save more lives by partnering with Uber to bring alternative transportation options to residents.

Description: The way these government/Uber safe rides partnerships works is simple. Working with the local government office or agency, it is determined that those living within a defined area can get safe rides home, sponsored by the local government through funds provided by private foundations. On-demand, subsidized service gives elected officials the assurance that their residents will not get behind the wheel or make bad decisions after hours. At the touch of a button on their smartphone, a resident can be minutes away from getting home safely, within designated local boundaries. In the case of Evesham, NJ specifically, here's how it works: When you're ready to leave one of the select locations, you open the Uber app and select the “EVESHAM” option. You request your ride, and then you get a receipt emailed to you showing that you paid \$0 for the trip. The EVESHAM option — which is automatically available when someone is located in one of the participating local venues — is available every day of the week from 9 p.m. and 2 a.m.

Impact: The Evesham/ Uber partnership has been wildly successful. Since adopting the program, Evesham has experienced a 55-percent decrease in DUI arrests, according to Evesham's Police Department. Mayor Randy Brown has pledged to keep the program going, as long as he's in office. Following on the success in Evesham, the safe rides option is now available in two more New Jersey towns: Voorhees and Old Bridge.

How-To:

Uber and Evesham officials began working together through their mutual partner Mothers Against Drunk Driving. Local officials should reach out to the Uber team in their respective region to begin discussion on emulating this partnership. The best way to get in touch is via press@uber.com

Funding: Foundations and Philanthropy

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Tags: Innovation, Safety

UnitedHealthcare Maximizes Denver Wellness Outcomes

Challenge: A significant portion of the employees were living with a chronic condition, the City and County of Denver looked to create an effective, sustainable, incentive-based wellness program that would help drive engagement and meet its goals.

Description: The mayor introduced a program across all carriers where employees were challenged to have an annual wellness exam and complete a health assessment. In doing so, members received a \$240 incentive for completing the program

Impact:

- Cancer accounts for 10% of net paid down from 12%.
- 25 Back Surgeries; down from 32.
- Doubled health assessment completion – was 325 in 2013, 748 in 2014.
- First year of Incentives for Health: 718 members completed their physician visit and their wellness visits increased by 2%.
- 47% feel stress a lot or most of the time – with that feedback the City offered 27 stress and wellness classes in 2014 and are offering more than 100 stress, wellness and weight loss related classes in 2015.
- In 2013, 2014 and 2015 employees were invited to have a free diabetes screening and onsite classes.

How-To:

- Established a baseline for employee health risk through the Incentives for Health program
- Offered Employee Wellness Incentive
- Onsite screenings for pre-diabetes
- Diabetes Prevention and Control Alliance
- CARE24 onsite health and wellness classes
- Use of UHC wellness fund credits for: program incentives/ giveaways, focus groups, onsite biometric screenings, health fairs, SPARKS program

General Tips:

- Develop a communications campaign and calendar to help drive participation and keep employees on track.

Funding: Private Financing, Wellness credit

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Tags: Cost Savings, Health & Wellness

USCM/USA Funds National Education Pathways With a Purpose Awards

Challenge: Enhancing college- and career-readiness to develop a skilled workforce that supports local economic growth.

Description: USA Funds provided grant funding to the U.S. Conference of Mayors to design and promote a competitive grant program to recognize one small, one medium and one large city for excellence in mayor-led programs that promote college- and career-readiness. The 2015 awards program generated applications from 42 mayors. Denver; Long Beach, Calif.; and Grand Rapids, Mich. were announced as the three winning communities during the 83rd Annual Conference of Mayors. Award-winning cities presented their best practice programs during a forum at the annual conference. The winning cities also conducted local award ceremonies and received local news media recognition. The U.S. Mayor newsletter also highlighted winning mayors and their best practices for promoting college and career readiness. USA Funds and USCM are continuing the partnership in 2016, increasing to \$150,000 the total grant funds for the three winning cities. Participation in 2016 grew to 46 mayors. 2016 winning communities will be announced during the 84th Annual Conference of Mayors in Indianapolis June 24-27, 2016.

Impact:

1. Provided recognition to mayors who have developed and implemented successful programs to enhance the skill levels of their local workforce;
2. Disseminated to other communities best practices to enhance educational attainment levels and career readiness;
3. Reinforced the importance of promoting development of talent for the economic health and prosperity of local communities.

How-To:

USA Funds provided grant funding to the U.S. Conference of Mayors to design and promote a competitive grant program to recognize one small, one medium and one large city for excellence in mayor-led programs that promote college- and career-readiness. Jointly developed selection criteria, promoted to mayors through USCM, and engaged panel of third-party judges to review applications. Awards announced and panel of winning cities best practices presented at 83rd Annual Conference of Mayors. Winning mayors and their best practices highlighted in U.S. Mayor newsletter.

Funding: Private Financing, Foundations and Philanthropy

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Tags: Impact on City Economy

Veolia Provides Management Advisory Services to East Orange, NJ's Water Department

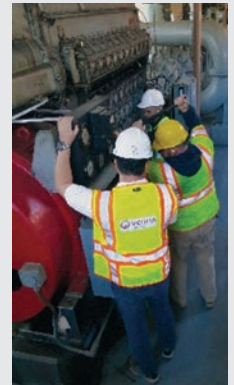
Challenge: Faced with limited funding, regulatory compliance issues, and infrastructure in need of repair, cities require flexible utility management solutions that meet the specific needs of their communities. Public-private partnerships can help cities deliver exceptional customer service and protect public health and welfare, while controlling rates and budgets. The City of East Orange Board of Water Commissioners (EOBWC) oversees the financial aspects of the East Orange Water Department (EOWD), located in Essex County, NJ, which provides water and wastewater services to about 65,000 area residents. As with many communities in North America, the City of East Orange was facing a serious budget deficit. Mayor Lester E. Taylor III and Michele Antley, Board of Water Commissioners President, have discussed ways in which the administration is applying new ideas to responsibly manage water customer and taxpayers' funds, while providing outstanding service to residents and business owners. One area they and city leadership felt required immediate attention was the city's Water Department.

Description: As part of our management advisory services, Veolia provided oversight of the City's water and wastewater operations and reviewed aspects of the utility's operations for potential improvements. An important part of our efforts has focused on working with the EOBWC and the EOWD to implement long-needed capital projects, improve customer service, develop capital and operating budgets, review financial accounting and procurement processes, and identify efficiencies in operations, labor and energy use. Working with the EOWD staff, Veolia developed and recommended measures for improving and streamlining the water and wastewater operations and utility administration. Utility functions for self-performing repair and maintenance work, asset management, fleet administration, inventory, purchasing procedures, financial processes and customer service management were part of this review. Veolia focused on measures for increasing efficiencies and reducing operations, maintenance and management costs. Since April 2015, Veolia's efforts have resulted in closing a \$4M shortfall on a \$23M budget in six months, through identification of unaccounted-for funds and initiation of a rate increase.

Impact: Veolia has identified 15-20% savings to be implemented over the next three years. Capital planning to strengthen water infrastructure, operational efficiency plans, staff training, and customer service software and management improvements are integral to Veolia and EOWD's ongoing efforts. Veolia has implemented cross-training for field staff to increase skill sets, performed a facility-wide safety audit, facilitated health and safety training for excavations by an outside vendor, and reduced outside contractor spending on repair and maintenance by approximately 50% by bringing these tasks in-house. The partnership has also addressed customer service issues related to outstanding revenue collections and water shut-offs for non-payment. Veolia instituted a process to prioritize and streamline this process, resulting in better use of field personnel, and increased revenue from delinquent accounts. Accounts receivable reporting discrepancies have been resolved, allowing financial reporting to be more timely and accurate. Additional process improvements in the future will include mobile work orders, online customer service tools, GIS, and SCADA system upgrades.

How-To:

1. Conduct discovery process, peer review and analysis.
2. Develop implementable measures for improving and/or streamlining current operations, focusing on increasing efficiencies and reducing operations, maintenance, and management costs. Focus on identifying and overcoming challenges and institutional resistance to change.
3. Present recommendations and outline a sustainable plan and approach to ensure the efficiencies and improvements identified can be carried forward over the long term.
4. Form partnerships with, and achieve consensus from key stakeholders in the Mayor's Office, the Board of Water Commissioners, City Council, and the NJ Department of Environmental Protection.
5. Support public outreach, legislative initiatives, and other processes to implement the agreed-upon recommendations under the collaborative project approach.
6. Work with utility staff to manage the implementation of agreed-upon initiatives, using effective change management and collaborative coaching techniques.



Funding: The Capital Improvement Plan will be funded through low-interest NJ State Revolving Loan Funds (Environmental Infrastructure Trust).

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Impact on City Economy, Capital Projects

Waste Management Helps Cocoa Beach Clean Up Its Beach

Challenge: The City of Cocoa Beach is known for its beautiful beach and proximity to the Kennedy Space Center and Cape Canaveral Space Launch Center in East Central Florida. Cocoa Beach takes great pride in keeping its beaches clean both from an environmental and economic standpoint, but had struggled the past few years to keep up with the collection of exorbitant levels of trash left on the beaches. While year-over-year increases in tourism were welcome, the waste the visitors left behind on the beach threatened to tarnish the City's image and its pristine beaches, negatively impacting the City's tourism economy. Cocoa Beach ramped up its efforts to stay ahead of the trash problem by calling on its own staff to empty beach cans and engaged the local Keep Brevard Beautiful (KBB) team in volunteer clean-up efforts. Waste Management also chipped in by increasing the number of collections near the beach and provided the City with additional carts to contain waste from tourists leaving the beach. The problem became so troublesome, with increases in calls and complaints, that the City included beach clean-up as a major part of its 2014 Solid Waste and Recyclables Collection RFP.

Description: As the incumbent solid waste provider for Cocoa Beach, Waste Management developed an innovative plan to keep the City's beaches clean, and was awarded the exclusive franchise agreement in Fall 2014. We created a public/private and non-profit partnership with Cocoa Beach and Keep Brevard Beautiful (KBB) to ensure that the City was always clean. Several planning and strategy sessions resulted in an integrated logistics, communications, and operations plan between Waste Management, Cocoa Beach and KBB staff. The plan included strategically placing larger collection containers at key access points and streets adjacent to the beach; the deployment of 30 Bigbelly Solar Compactors throughout the City; a sub-contract with KBB to do twice-a-day collection of trash by new KBB employees – to take place before the cruise ships docked in the mornings and at day's end; and finally, fine-tuned coordination between KBB and Waste Management Operations to empty all larger containers at specific times to avoid overflow. Teams of KBB volunteers, Cocoa Beach and Waste Management employees, continued to monitor the beaches throughout the transition period to ensure the beaches remained clean.

Impact: The official beach clean-up began in February 2015 with Waste Management and KBB working in tandem every day, twice a day, to collect and dispose of garbage on the beach. The results have exceeded all expectations, and the City of Cocoa Beach could not be more pleased. Even during peak tourism season in 2015, the beach was free of garbage with the City, Waste Management and KBB crews in constant communication to ensure a smooth operation. Melissa Byron, City of Cocoa Beach Director of Marketing and Economic Development, noted that the City gauges success on this project by the number of calls regarding trash on the beach, which she says, have been reduced to almost none. The City also reviews TripAdvisor and noted that the comments posted in 2015 were far more positive and complimentary. Byron added, "Waste Management is doing an outstanding job keeping Cocoa Beach beaches clean and always ready for residents and visitors." It should be noted that Cocoa Beach was once again designated among the cleanest beaches in the nation and was recognized as a Blue Wave Beach by the Clean Beaches Council – the only beach in East Central Florida to have received this award.

How-To:

- Spring 2014 – City of Cocoa Beach issues solid waste and recyclables collection request for proposals, which included beach clean-up as part of the overall service package
- Spring 2014 – Waste Management develops collection plan in conjunction with Keep Brevard Beautiful to offer as part of its proposal service offerings
- Fall 2014 – Waste Management awarded City of Cocoa Beach Solid Waste and Recyclables Collection franchise agreement
- Fall 2014 – Waste Management refined beach clean-up scope of work with City and KBB staff
- Fall 2014 – Robust, integrated plan developed that includes 7-day per week beach garbage cart collection prior to 7:30 a.m. and again in early evening just prior to sundown; on-call communication with Waste Management, City, and KBB staff which includes weekends and especially holidays to address any issues or alert to heavy volume; site visits from Waste Management staff during weekends and holidays during peak season to ensure dumpsters do not require immediate service
- February 2015 – Waste Management, City of Cocoa Beach, and KBB initiated beach clean-up plan
- Memorial Day Weekend 2015 – Busiest beach weekend of the year ends with beaches extraordinarily clean, dumpsters empty, and no complaints to City
- Summer 2015 – Present 2016 – Cocoa Beach is among the cleanest beaches in the nation and is recognized as a Blue Wave Beach by the Clean Beaches Council

General Tips:

Alignment of all partners - Waste Management, the City of Cocoa Beach, and Keep Brevard Beautiful - around the shared goals and objectives to keep Cocoa Beach's beach clean was so critical to the success of this initiative. Plus, the robust, coordinated communication effort among all three entities was definitely key to this project's launch and continued success.

Funding: Private Financing, General Purpose City Funds

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Tags: Service Delivery Improvement, Innovation, Cost Savings, Environmental Impact, Impact on City Economy, Jobs Created, Increased Tourism, Business Benefits



Wells Fargo LIFT Programs

Challenge: In the aftermath of the housing crisis, Wells Fargo participated in countless conversations with customers, mayors, HUD-approved counselors, community groups, and regulators on what might be done to spark a recovery for local housing markets. Wells Fargo proceeded to launch a robust, public-private collaboration with NeighborWorks America, its local community network members, with HUD-approved counselors and local municipal public officials to create the innovative effort.

Description: To help communities recover in the wake of the housing crisis, in collaboration with national nonprofit NeighborWorks America, its local network members, and city officials, in 2012 Wells Fargo launched LIFT programs – that offers homebuyer education plus down payment assistance to support sustainable homeownership and advance neighborhood revitalization across 40 communities.

Impact: LIFT programs have created more than 11,250 homeowners since 2012 with a combined \$300 million investment by Wells Fargo benefiting 41 communities. Wells Fargo, in collaboration with NeighborWorks America, has closely tracked the impact of the program with analysis of the first 10,000 homeowners created. Analysis shows the majority of LIFT program grant recipients earn 80 percent or less of their area's median income. The program is helping mortgage-ready, hard-working people and families overcome the barrier of an insufficient down payment to buy a home. This innovative effort is also generating new revenue streams for local HUD-approved counselors and in the form of local property taxes.

How-To:

Wells Fargo LIFT programs are deeply rooted in collaboration with local municipalities and nonprofits. LIFT programs were shaped based on feedback from mayors, customers, community stakeholders, and regulators we talked to during the housing crisis who consistently expressed a need to create opportunities to make homeownership more affordable, achievable, and sustainable for mortgage-ready families and individuals, as well as help cities attract homebuyers to purchase previously vacant properties. The feedback we received from mayors, community stakeholders, and regulators was that our LIFT programs are quite compelling. With more than 11,250 homeowners, prepared with homebuyer education administered by HUD-approved counselors, created across 41 communities, LIFT programs are making a tangible impact to the lives of families and improved neighborhoods. Wells Fargo has expanded the program in 2016.

General Tips:

With feedback in place from customers, mayors, community stakeholders, and regulators, the challenge Wells Fargo faced was how to focus support for homebuyers to create measurable impact as well as ability to execute to scale given the vast opportunities to support homeownership. Wells Fargo made two high-impact decisions to spur LIFT programs: 1) Engage a nonprofit that had capabilities to implement the LIFT programs to scale in dozen of local markets in collaborating with NeighborWorks America and the national nonprofits local network members, and 2) Shape the program so that it was not exclusive to Wells Fargo. While Wells Fargo is the exclusive financial funder of LIFT programs – providing downpayment assistance and program support – eligible homebuyers may apply for a purchase mortgage from any eligible lender participating in the local community program.



Funding: Private Financing, Philanthropic grants

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Tags: Impact on City Economy

Launch of Zipcar in Orlando, Florida

Challenge: Keeping Orlando moving has been a key priority for the City of Orlando to ensure there are multiple transportation options for everyone who lives, works and plays in the City. In 2014, the City's Community Redevelopment Agency launched a new initiative, referred to as Project DTO (Advancing Downtown Orlando), to plan the evolution of Downtown over the next ten years and beyond. The plan includes expanding transportation options and developing an integrated, multimodal transit system. Orlando Mayor Buddy Dyer stated that offering alternatives to car ownership such as public transit, biking and walking connects residents with access to jobs and opportunity. Zipcar complements public transportation by enabling members to ditch their car keys and walk, bike and take transit. The launch of Zipcar in Orlando in February 2016 has furthered the City's transportation initiative by providing a sustainable and cost-effective way to get around Orlando and beyond. Through strategic public-private partnerships with the City and the Florida Department of Transportation's reThink program, Zipcar was awarded free parking spots giving residents access to wheels without needing to own a car.

Description: The public-private partnership best practice here is to form strategic relationships early on with not only the City at large but also key city programs that share a similar interest to help drive the goals of all entities forward more efficiently and effectively in the best interest of the City. Bringing Zipcar to Orlando would not have been possible without the City, but furthermore, a close partnership with the Florida Department of Transportation's reThink program, a service that shares Zipcar's mission of making cities a better places to live through sustainable transportation. By joining forces with the City of Orlando and reThink, we were able to bring Zipcar to Orlando, making it a more connected area for residents and visitors to live, work and play. Cross-marketing our efforts and working together to determine the most highly trafficked areas of the city to place Zipcars resulted in a hugely successful launch event that garnered a slew of media coverage on all local media outlets and erupted an extensive conversation on social media, all of which has led to a significant number of members joining Zipcar in a matter of months.

Impact: Zipcar's launch in Orlando through strategic partnerships with the City and reThink has been incredibly successful and has met the goals of all parties involved. A substantial amount of members have signed up for the service, which means less personally owned vehicles on the roads, less traffic, decreased parking demand, less Co2 emissions and greater connectivity for residents and visitors. Additionally, third party data shows that after joining Zipcar, members report a 46% increase in public transit trips, a 10% increase in bicycling trips and a 26% increase in walking trips, further strengthening Orlando's transportation ecosystem.



Zipcar's official launch in the City of Orlando

How-To:

Step 1:

Identify a city and a city program that shares a similar interest, discuss goals and ensure alignment.

Step 2:

Devise a strategic plan for implementation, including cross-promotion of services and shared interests.

Step 3:

Continue to monitor utilization and demand of service, growing or adjusting when needed in the best interest of the city.

Funding: The City of Orlando leases spaces to the Florida Department of Transportation at no cost so long as they are used for car sharing.

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Tags: Innovation, Environmental Impact



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