

Intelligent Community Awards Program

Top7 Intelligent Communities Phase

2015

Congratulations on being selected as one of the Intelligent Community Forum's Smart21 of 2015. In order to proceed to the second phase of ICF's international awards program, you must complete this questionnaire, which provides ICF's research analysts with more detailed data. The selection process proceeds as follows:

October-December 2014

Each of the Smart21 Communities completes a detailed questionnaire in order to be considered for ICF's Top7 and Intelligent Community of the Year (ICY) award. The information in this form will be evaluated by an independent research firm, which produces numerical scores for each community.

January 2015

The seven top-scoring communities are named as ICF's Top7 Intelligent Communities (finalists) online and at an event at Taichung City, Taiwan, the 2013 Intelligent Community of the Year.

Feb-April 2015

The Top7 Communities host an ICF co-founder for not more than two business days, at the community's expense, for a site visit to validate the information provided to the Forum. The co-founder's report on the community is reviewed by the international jury, which votes on its choice for ICY. To select the Intelligent Community of the Year, ICF combines the quantitative scores of the independent research firm on a weighted basis with the independent votes of the jury.

June 2014

ICF invites representatives and citizens from the Top7 to Toronto, Ontario, Canada for the 2015 Summit. Each of the Top7 will participate in roundtable discussions, a ceremony honoring their achievement and an individual interview on stage. On the final day of the Summit, one of the Top7 will be named Intelligent Community of the Year. The Intelligent Community of the Year is barred from entering the Awards program again but is named to the international jury.

Association

Communities named to the Smart21, Top7 or Intelligent Community of the Year are eligible to join the ICF Foundation, the membership association of the Forum, which provides a global network for collaboration on economic development and the sharing of best practices.

Completing the Application

Fill in the fields below. Each field will expand to make room for your complete answer. Save the file to your computer and email it to ICF at awards@intelligentcommunity.org **by December 22, 2014**. The Analysts for the Top7 will use only the information on this form in making its evaluation. Do not send additional information or attachments.

Deadline for
Nominations:
22 Dec 2014

New: Sustainability Criteria

In the 2014-2015 Awards cycle, ICF is testing a sixth criteria for evaluation of Intelligent Communities: **Sustainability**. Throughout human history, economic growth has always involved the consumption of more resources and the production of more waste products. As humanity begins to push up against the limits of the ecosystem, we need to find ways to continue growth while reducing the environmental impact of that growth. Sustainability contributes to the progress of Intelligent Communities in three ways:

- **Contributing to economic development.** Organizations that use fewer resources to create products and provide services are more efficient and productive, which is key to continued improvements in their standard of living.
- **Contributing to quality of life.** Many if not most sustainability measures improve local quality of life, from cleaner air and water to improved public transportation and greater livability.

- **Contributing to cultural richness.** Communities that make sustainability a shared goal typically engage organizations, community groups and neighborhoods in sustainability programs and activities. These contribute to civic pride, local identity and mutual understanding.

Your responses to the Sustainability criteria will be reviewed and analyzed by ICF but will not affect the evaluation of your community for the Top7 of 2015. Our goal is to test the questions in this category and ensure that they can be answered effectively and produce results that are meaningful in our evaluation in future years. We thank you for taking the time to help us evaluate this new Intelligent Community Indicator – the first new indicator introduced in the past 15 years.

2015 Theme: The Revolutionary Community

Each year, ICF selects a theme to give the Awards program a unique focus. The theme for 2015 is “The Revolutionary Community.”

The work of creating an Intelligent Community often begins in crisis. It may be a severe economic downturn after major employers relocate. It may be accelerating brain drain as the community’s most talented people leave in search of opportunity. Or it may be more subtle – a dawning awareness that the community faces profound risks to its future. In response to crisis, Intelligent Communities hold public consultations, launch programs and build infrastructure that they hope will create a new foundation for prosperity and wellbeing.

But once the crisis is past, how do Intelligent Communities maintain their momentum and avoid being caught unprepared by the next wave of change? They engage in **urban and regional planning** – a deliberate and collaborative effort to design a prosperous, inclusive and sustainable future for their people. But this is **planning with a difference**. They know that today’s disruptions in technology, the economy and the environment will only grow more intense. They understand the profound impact that the continuing broadband revolution will have on their physical form, the delivery of services and their competitive advantages. So they approach the planning of land-use and infrastructure, sustainability and community development in revolutionary ways. In the process, they reinvent what it means to plan. More information is available in the white paper, *The Revolutionary Community*, available on the Nominations page at www.intelligentcommunity.org/nominations.

Important: Questions marked with a red asterisk (*) below ask for numbers related to the population of your community. In providing this information, please be consistent: *do not* provide numbers for a municipality in one place and a larger metropolitan region or county in another. All numbers should correspond to the same geographic area.

About the Community	Name of Community			
	Columbus			
1. Population	Municipality	822,553	Metro Area (if applicable)	1,967,066
2. Labor Force	Municipality	436,851	Metro Area (if applicable)	1,015,512
3. Area	Municipality	217 Square Miles	Metro Area (if applicable)	4976 Square Miles
4. Top Industries by Employment	Government - 154,604; Professional & Business Services 180,203; Education & Health 144,076; Retail 105,974			
5. Emerging sectors or clusters with potential for growth	Education&Health, Headquarters/Back Office Functions (ICT), Professional&Business Services, Advanced Materials&Energy, Logistics & E-commerce			



**Indicator #1
 Broadband**

Broadband is the new essential utility, as vital to economic growth as clean water and good roads. Intelligent Communities express a strong vision of their broadband future and encourage deployment and adoption.

6. Which of the following broadband access systems are available in your community, and are they provided by the private sector, public sector or a public-private partnership?

<input checked="" type="checkbox"/> DSL	Provided by:	Private-sector
<input checked="" type="checkbox"/> Cable modem	Provided by:	Private-sector
<input checked="" type="checkbox"/> Fiber optics	Provided by:	Private-sector
<input checked="" type="checkbox"/> Wireless	Provided by:	Private-sector
<input checked="" type="checkbox"/> Satellite	Provided by:	Private-sector

7. Please indicate the percentage of the following groups of users who have access or connection to the Internet at broadband speeds.

	Availability % with access to broadband (homes or organizations "passed")	Penetration % subscribing to broadband
Households	99.99%	80 %
Businesses	99.99 %	82 %
Government	100 %	100 %
Educational and nonprofit	99.99 %	99 %

8. Please indicate the minimum, median (middle) and maximum broadband speeds available to residential customers from the three carriers with the largest market share in your community, and the monthly price of that service. Use pricing for standalone broadband service only, not for discounted bundles of Internet, voice and /or video. Be sure to indicate the currency you are using. If your community is served by fewer than three carriers, leave the extra fields blank.

	Speed	Monthly Cost	Currency: US\$
Carrier #1: Time Warner Cable		Approx. Market Share: %	
Minimum	2Mbps	\$19.95	
Median	20Mbps	\$55.00	
Maximum	50Mbps	\$75.00	
Carrier #2: AT&T		Approx. Market Share: %	
Minimum	3Mbps	\$29.95	
Median	6Mbps	\$34.95	
Maximum	24Mbps	\$54.95	
Carrier #3: WOW		Approx. Market Share: %	
Minimum	2Mbps	\$35	
Median	30Mbps	\$42	
Maximum	50Mbps	\$52	

9. Please describe up to three projects initiated in your community to promote deployment of, access to, or use of broadband by citizens and organizations. *Note: some communities are well-served by commercial carriers and do not invest in programs to spur broadband deployment. Your community's score will not be affected if does little or no broadband promotion but has high broadband availability and penetration.*

Name	Funded By	Year Started
Science DMZ	<input type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input checked="" type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 2012
Description	Results to Date	
<p>Researchers at The Ohio State University were awarded a two-year, \$1 million grant from the National Science Foundation (NSF) to create a safe and resilient network architecture dubbed the "Science DMZ" – a sub-network on the Internet where institutions normally protected by firewalls will be able to freely/safely share information with each other.</p> <p>The project will leverage the 100-Gbps statewide network that has been deployed by the Ohio Academic Resources Network (OARnet), as well as the computational and storage resources of the Ohio Supercomputer Center (OSC). The platform has demonstraed the use of Ohio State's cyberinfrastructure and Science DMZ with the cyberinfrastructure at the University of Missouri.</p> <p>The Internet firewalls that protect institutions from malicious online activity can create bottlenecks that hinder data sharing among research partners.</p> <p>The NSF grant was used to create an experimental research network, identifying the software, hardware, methods and protocols that allow scientists to securely move data past local firewalls. Science DMZ researchers have published best practices and developed open-source software applications for handling researcher application flows in production networks across a diverse array of science and engineering disciplines and for multiple university campuses.</p>	<p>Project staff members at The Ohio State University have completed major equipment purchases and personnel hiring. They have put together a "Science DMZ Overlay Network" testbed in early 2013 to integrate the various Science DMZ resources and technologies in production environments and the deployment is being used to demonstrate Gigabit applications in research, industry and education.</p> <p>The OSU researchers also have begun working with the University of Missouri team and Internet2 to run multi-campus Science DMZ authentication and authorization experiments. Lastly, project managers have already started discussing with NSF colleagues how to handle resource contention & configuration challenges and support APIs from the NSF's Global Environment for Network Innovations (GENI) Project.</p> <p>New Gigabit networking and application support tools are being developed that will foster broadband adoption for a variety of Gigabit Apps that have tangible benefits to citizens with access to broadband.</p>	

Name	Funded By	Year Started
Public Safety	<input checked="" type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 2011
Description	Results to Date	
Neighborhoods are benefitting from broadband-enabled technologies, such as the transmission of high definition video and images supporting public safety, law enforcement and first responders. Mobile connectivity at police substations allows in-car high definition video to be transmitted directly from a patrol car to centralized servers without the need for removing a laptop or camera from the car and physically docking it to the main computer. Patrol cars simply need to drive into the substation and wirelessly transmit high definition videos and images for Amber alerts, evidence or dispatch.	In-car wireless mobile connectivity has been modified and expanded utilizing fiber connected city facilities to provide fiber backhaul services from wireless access points using the 2.4 GHz and 5 GHz channels to provide high speed video uploads of 300mbps with future potential of 1.3 gbps utilizing 802.11.ac technology. The wireless cruiser video uploads via 802.11 a/g/n/ac wireless access points that are connected internally to the fiber network where it is transported to redundant 10 gig connected data centers for high volume video storage. Phase I consists of 15 locations throughout the City servicing 5 Police zones utilizing safety and non-safety city facilities, covering outdoor parking lots in the 15 locations.	

Name	Funded By	Year Started
Comprehensive Traffic Signaling System (CTSS) program	<input checked="" type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 2008
Description	Results to Date	
As a part of its inter-departmental collaboration efforts, the City has continued to expand its fiber optic cable backbone. Broadband expansion has been attained through collaborative initiatives such as the Comprehensive Traffic Signaling System (CTSS) program which is building a backbone of fiber optic cable and wireless communications technologies. Through this partnership the city will continue additional fiber growth as the CTSS program continues. This program is one of the key inter-jurisdictional, regional initiatives where the city is collaborating with other municipalities – under guidance by MORPC.	The current city fiber optic infrastructure has now reached approximately 400 miles of installed fiber with another 100 miles of fiber construction to begin in 2015. In 2014, the city has built fiber laterals to an additional 7 facilities to provide high speed broadband services to Public Safety and other municipal locations.	

**Indicator #2
 Knowledge
 Workforce**

A knowledge workforce is a labor force that creates economic value through its knowledge, skills and ability to use information effectively. Intelligent Communities exhibit the determination and demonstrated ability to develop a workforce qualified to perform knowledge work from the factory floor to the research lab, and from the construction site to the call center or corporate headquarters.

10. Please indicate the percentage of your population whose greatest educational attainment is in the following categories.

Less than secondary (high school) degree	11.4 %	Undergraduate degree	21.4 %
Secondary (high) school degree	29.2 %	Graduate degree (M.A., Ph.D., Eng., etc.)	11.9 %
Technical/community college certificate	7.2 %		



11. Please list the universities, colleges and community colleges or technical schools within your community or within reasonable commuting distance for residents. For the most recent academic year, indicate the total enrollment (number of total students) and the number of graduates.

Name	Type	Enrollment	Graduates This Year	
			2-4 Year Studies	Graduate Studies
The Ohio State University	<input type="checkbox"/> Community college or technical/vocational school <input checked="" type="checkbox"/> Undergraduate/graduate college or university	57,466	9,301	4,420
Columbus State Community College	<input checked="" type="checkbox"/> Community college or technical/vocational school <input type="checkbox"/> Undergraduate/graduate college or university	25,249	2,220	N/A
Franklin University	<input type="checkbox"/> Community college or technical/vocational school <input checked="" type="checkbox"/> Undergraduate/graduate college or university	6,274	1,336	482
Capital University	<input type="checkbox"/> Community college or technical/vocational school <input checked="" type="checkbox"/> Undergraduate/graduate college or university	3,628	579	268
DeVry University	<input type="checkbox"/> Community college or technical/vocational school <input checked="" type="checkbox"/> Undergraduate/graduate college or university	3,578	699	350
Ohio Dominican University	<input type="checkbox"/> Community college or technical/vocational school <input checked="" type="checkbox"/> Undergraduate/graduate college or university	2,573	407	248

12. Please indicate the approximate number of people in your community who participated in continuing education (e.g., adult education) last year.

Continuing or adult education participation *	37,977
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13. How many jobs did your community create in the last 36 months (gross and net of job losses)? How many of the the new jobs depend on information and communications technology (ICT)? This may include jobs with ICT companies but may equally include ICT jobs in companies in retail, manufacturing, service and other businesses. It is understood that "jobs depending on ICT" is an estimate rather than a verifiable number.

Gross Jobs		Net Jobs	
All jobs *	545,761	Jobs depending on ICT *	65,106
		All jobs *	113,862

14. Please describe up to three projects initiated in your community to improve access to education, help students make the transition to employment, or help students and citizens gain skills that will help them find

high-quality employment. Avoid describing programs aimed giving low-income, elderly or similar residents basic digital skills: these are addressed in the Digital Inclusion section.

Name	Funded By	Year Started
The Central Ohio Compact	<input type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input checked="" type="checkbox"/> Other
2010		
Description	Results to Date	
<p>The Central Ohio Compact is a consortium of higher-ed, K-12, economic development and business leaders. The initiative's mission is based on the Big Goal set forth by The Lumina Foundation for Education that asserts for America to maintain its competitiveness by 2025, 60% of Americans will need to have earned high quality degrees and/or postsecondary credentials.</p> <p>Columbus is the second largest college town in America and yet, studies indicate that many Central Ohio students are lost along the way from entering 9th grade to entering or remaining enrolled in two- or four-year colleges. Many factors contribute to this attrition – including the high costs of education, central Ohio's increasingly diverse population, first generation college students and a significant number of high school graduates that are not college ready. Through a collective and integrated approach, the Compact is striving to overcome these and other challenges and dramatically increase the number of students earning a post-secondary credential (two-year/four-year degrees, certifications and other non-traditional post-secondary education and training).</p> <p>The Compact has adopted the Compact Strategy calling for increased access for all Central Ohio citizens to post-secondary education; curricular alignment among the region's higher education institutions and with industry and workforce needs; and the establishment of the appropriate metrics to monitor the region's progress towards its Big Goal.</p>	<p>A key initiative of the Central Ohio Compact is leading the region into the Pathways to Prosperity Network, which is building grades 9-12 career pathways in collaboration with employers and aligned with labor market demands. With partnership support of JP Morgan Chase, the Ohio Business Roundtable, Battelle, the Educational Service Center and Columbus State, the Central Ohio Compact joined the network of states, Jobs for the Future, and the Pathways to Prosperity Project at Harvard Graduate School of Education. The long-term goal is to create regional systems of career pathways that serve the most students. Key industry sectors identified for pathways building include information technology, health care, business/logistics, and advanced manufacturing.</p> <p>A number of the region's universities and colleges have signed a joint resolution making way for 2+2 and 3+1 baccalaureate degrees students can earn by beginning their studies at Columbus State Community College and being guaranteed admission and application of credits towards their bachelor's degree at the region's traditional four-year universities. Programs are already in place with Ohio State and others, and a new program with Miami University was announced in 2013.</p>	

Name	Funded By	Year Started
Battelle STEM Learning Initiative	<input type="checkbox"/> Local Gov <input checked="" type="checkbox"/> State/Prov Gov <input checked="" type="checkbox"/> National Gov <input checked="" type="checkbox"/> Private sector	<input checked="" type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other
2006		
Description	Results to Date	
<p>The Battelle Memorial Institute “was created for the purpose of education in connection with the encouragement of creative and research work and the making of discoveries and inventions.”</p> <p>In carrying out its educational mandate in the 21st century, Battelle is taking a leadership role in the development of a knowledge workforce by advancing education in science, technology, engineering and math. (STEM)</p>	<p>Metro is growing with 694 students in 2014-15 after expanding in grades 6-8 in 2013.</p> <p>The school has celebrated five graduating classes with 100 percent of those graduating accepted to college or the military. Students in these graduating classes had earned 10,955 college course credits before graduating Metro. Last year alone, they were offered \$2.5 million in scholarships. Eighty percent of students take at least one college course while in high school and 30 graduates</p>	

Columbus' Metro Early College is Battelle's testing ground and incubator for innovations in STEM education. Metro is a STEM and early college 6-12 school located on the campus of The Ohio State University. At Metro, STEM education goes beyond the standard definition and encompasses approaching things with a sense of inquiry; being a thoughtful problem solver; working well in teams; being able to document and communicate findings; and being prepared for lifelong learning. Metro takes into account not just academic content but personal development and persistence of work habit which are foundational to any type of college or career success in the 21st century.

Metro emphasizes mastery over memorization. Students are equipped with the resources they need to succeed, including their own laptop they are free to take home, high-speed broadband in the building and access to any resources they need to solve an educational challenge.

Students advance, not along a set calendar, but in accordance to their individual mastery of core subjects. When students advance beyond 12th grade level they are free to take advanced classes at Ohio State. Much of Metro's curriculum is project-based learning designed to create subject mastery. Core principles delivered in a classroom are then applied in a real-world context (i.e. at any of the businesses that support and co-op programs with Metro) and then demonstrated through some type of applicable project, such as a white paper, a scientific poster, a model, a campaign, etc. This is then complemented with rigorous testing such as ACT end of course exams.

have already earned a bachelors degree. Two additional students have earned an associate's degree.

Battelle has leveraged lessons first learned at Metro to drive innovation in education across its national STEM learning network (<http://www.stemx.us>). Metro has served as the role model for development of 24 additional STEM schools across Ohio and schools in 13 other states.

Working in tandem with Battelle, Metro is a working laboratory for vetting the best methods of teaching. And the innovative lessons learned at Metro, provide the basis of "train-the-trainer" programming for educators who want to learn best practices and effective school models.

Name	Funded By	Year Started
IT-ART	<input type="checkbox"/> Local Gov <input checked="" type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input checked="" type="checkbox"/> Private sector	<input type="checkbox"/> School <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 2011
Description	Results to Date	
Recently, Columbus State Community College (CSCC) was sub-awarded \$1.8 million as part of an H1B Training grant secured by the Ohio Department of Job & Family Services (ODJFS) and awarded to the Ohio Board of Regents (OBOR). CSCC has already begun the work to utilize this award to develop ART(Attracting and Retaining Talent) programming targeted at developing a talent pipeline of IT professionals to meet the skills gap for Information and Communications Technology workers for regional businesses. This award was based particularly on the merits of a successful pilot IT-ART program conducted in 2011 directed towards Business Analyst certification. The	CSCC conducted a successful Business Analyst pilot program in 2011 for twelve dislocated workers with eight of those securing employment within two months. Under the H1B grant, 235 applicants were screened, 127 were enrolled, and 106 began training. The students chose one of four tracks; Network Administrator, Database Specialist, Software Developer, or IT Support Technician. The tracks are primarily for credit CSCC associate's degrees. All tracks are for-credit include Project Management and non-credit 21st Century Skills (soft skills) training. So far, 13 students have begun On-The-Job-Training with local employers, and 4 have completed internships. 29 have secured employment in the IT field. The remaining students are continuing to proceed in their training.	



success of that program demonstrated the ability of this type of training in meeting key critical skills gaps.

**Indicator #3
 Innovation**

Innovation is the lifeblood of the modern economy. Intelligent Communities pursue innovation through a triangular relationship between business, government and such institutions as universities and hospitals. The Innovation Triangle helps keep the economic benefits of innovation local, and creates a culture that engages the entire community in positive change. Investments in innovative technology by government contribute to that culture and improve service to citizens while reducing operating costs.

15. Please explain the role of innovation in your community's plans for economic growth and describe your community's policies promoting innovation.

Innovation has always been a driver of economic and societal success in the Columbus region. Historically, the region's economy was built on businesses heavily reliant on innovation in advanced data processing, telecommunications, information technology and research (i.e. finance, insurance, healthcare).

Recognizing the continuing significance of innovation in making Columbus a great place to live, work and raise a family, in 2005 Mayor Michael B. Coleman introduced the Columbus Broadband Strategic Plan. The goal of the plan is to make Central Ohio the best connected region in the nation. This plan led the way for advancements in public owned fiber optic networks, digital inclusion, safety, service delivery, education, healthcare and all other factors that impact quality of life in the region.

At the same time, civic, business and university leaders united with a plan to leverage the region's unprecedented assets in research & development, higher education, ICT talent and business resources to form TechColumbus, a public-private organization charged with helping all businesses – large and small – harness the power of innovation in growing their businesses. In 2007, this role was greatly advanced when, under the auspices of the Ohio Third Frontier, TechColumbus was chosen to lead Central Ohio's Entrepreneurial Signature Program (ESP) providing access to business coaching services and capital to foster the growth of technology startups in the region.

Through strategic planning and action, regional leaders and policymakers have demonstrated an unwavering commitment to fostering and accelerating innovation in the region.

16. Please provide up to three examples of innovation **by local government** in the delivery of services to constituents and stakeholders.

Name	Funded By	Year Started
MyColumbus Mobile Application	<input checked="" type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 2011
Description	Results to Date	
MyColumbus combines multiple applications into a single downloadable app, available on both iOS and Android. While other cities may offer a 311 mobile application to access city services, users still must download any other available data (maps, resources, parks, events etc.) as separate stand-alone apps. MyColumbus is a robust solution offering a single access point to a broad spectrum of information and interactive features. MyColumbus comprises four key modules: MyNeighborhood with location-based mapping and information about community features and resources	Adoption and meaningful use of the MyColumbus mobile app has steadily increased since its initial launch. As of October, 2014 (39 months), there have been over 21,000 downloads of the mobile app which has received an average 3.8 out of 5 star rating from the iTunes app store and a 3.0 out of 5 star rating from Android, making the average user rating 3.3 stars across both platforms. There have been 7,000 service requests initiated with the app and the average number of service requests per month growing from 56.6 in 2011 to 318.9 per month in 2014.	



such as refuse collection and health inspections, etc.; GetActive with links to events calendar, recreation/sports facilities, golf courses, parks, bike trails, Art Walks, tips for healthy eating and exercise, etc.; GreenSpot which provides access to resources on sustainable practices such as energy and water conservation, location-based mapping of recycling centers; and 311 mobile access to the city's call center where citizens can initiate or check on service requests directly from the mobile app. The MyColumbus home page integrates key information directly from the Mayor's Website, providing RSS feeds of the most current alerts, connections to social media, and live streaming of CTV, the city's TV station.

Among the app's key features is the ability to upload photos with service requests, get alerts about your trash day, find a bus route or parking garage, and access to virtually all non-emergency government services. The MyNeighborhood feature displays, on a single map, a mash-up of data from over a dozen sources including the City's Content Management System, GIS repository, Google Places, and CitySearch.

The latest additions include a live feed of Traffic Cameras throughout the city and a section highlighting the largest softball complex in the nation, Berliner Sports Park, which offers 31 softball fields (11 of which are turf) for organized leagues and public use. The complex, which is also used for baseball and football, hosted their first National Professional Fastpitch game in 2014 with the Akron Racers taking on the USSSA Pride which aired on ESPN2. Berliner hosts numerous state, national and world events annually tallying 458,000 visits in 2014. 1,100 out of town teams contributed to 27,673 room nights booked as a result of activities at the park, which is estimated to have an overall impact of \$45 million dollars to the City of Columbus. The seasonal MyColumbus-Berliner segment assists park visitors find their field, concessions, restrooms, and parking, provides rain out information, schedules and standings.

One metric of particular interest is that service request resolution averaged nearly 9.87 days faster for some request types submitted via the mobile app. This is largely due to the inclusion of the photo from the mobile app, which gives inspectors and maintenance workers more information about the issue they are dispatched to resolve so they can show up on-site with the appropriate equipment and materials. In some situations, it even eliminates the need for the inspector to visit the site first.

Name	Funded By		Year Started
Comprehensive Traffic Signaling System	<input checked="" type="checkbox"/> Local Gov <input checked="" type="checkbox"/> State/Prov Gov <input checked="" type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other	2008
Description	Results to Date		
Expanded broadband has also supported deployment of the Columbus Traffic Signaling System (CTSS) program which replaces aging proprietary traffic signal systems (hardware infrastructure and operating system) with a more flexible system built on the backbone of fiber optic cable and wireless communications technologies.	Currently being constructed, over the next five years, there will be an additional 160 miles of fiber built from the nodes into the arterial roadways to facilitate the implementation of the traffic signaling devices and traffic cameras. Upon completion, this system will control more than 1,000 signalized intersections within the city's jurisdiction. This program is one of the key inter-		

<p>When fully deployed, this system is anticipated to improve the flow of traffic on arterial roads in the region, improve regional air quality and provide a more coordinated approach to traffic control throughout the region for events or incident management.</p>	<p>jurisdictional, regional initiatives where the city is collaborating with other municipalities – under guidance of the Mid-Ohio Regional Planning Commission (MORPC).</p>
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Name	Funded By	Year Started
Layered GIS Integration	<input checked="" type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other Varies
Description	Results to Date	
<p>Geographic Information System (GIS) is an enabling technology for better communication, decision making, and data interoperability. The Department of Technology's (DoT) proper exploitation of the technology has provided both key information to decision makers when they need it, and, has also improved the efficiency of services delivered to constituents and stakeholders.</p> <p>The GIS datasets (over one hundred layers) and functionalities are integrated with many applications both internally and externally including: the MyColumbus mobile app, One Stop Shop Zoning, Utility Dashboard, Capital Improvement Planning (CIP), Fire Hydrants Inspection/Maintenance, Public Safety applications including the E-911, 311 Requests, participation in the Location Based Response System and Snow Removal (Warrior Watch) application to name a few.</p> <p>Columbus also participates as one of 27 entities in the greater Columbus area that are using GIS technology to collaboratively build shared data files regarding regional infrastructure and services in a project called Location Based Response System (LBRS). Current shared databases include: roadways and address points. Plans are underway to expand the system to include sidewalks and bikeway facilities. The Department of Technology recently received the State of Ohio's Best GIS Practices Award in part because of its efforts and collaboration in the LBRS project.</p> <p>Launched in 2013, the City's GIS Portal is "the" place for anyone looking for geographic data and allows the user to search by category or simply visit a department's Map Gallery and explore all the digital maps and applications. A few examples of digital maps on the GIS portal are:</p> <ul style="list-style-type: none"> -The City's snow plow application called the Warrior Watch. This application was launched before winter of 2013 and proved extremely effective and informative through one of the harshest winters in the recent years. It uses the latest Esri technology, the Geo Event Processor which has enabled the 	<p>The City has been very successful in integrating GIS with other applications in the past several years and citizens' and internal departments' usage of the technology is a testament to this grand undertaking. The number of visitors per day and request for enhancements have been continually increasing for applications such as: the One Stop Shop Zoning, Utility Dashboard, the CIP, and Fire Hydrants since their inception. And, newer applications such as the 311 Requests Map, the Snow Removal (Warrior Watch) application, and many others are already receiving very positive feedback from the users.</p> <p>The City plans to continue these efforts as there are still many applications and workflows that could benefit highly from effective integration with GIS. After all, "70-80% of the information used in municipal management is tied to a geographic location". The City is prepared for this challenge and is planning for many more integrated solutions and easy-to-use applications to further enhance the citizen's access to accurate and current information. The potential of this new toolset for other City departments and applications are abundant. In an attempt to provide a uniform and coordinated view of the City's rich and growing GIS datasets/applications, DoT recently launched a centralized GIS Portal that guides the users to each department's GIS dataset and applications. The Portal will be enriched with more detailed and useful information as various departments take charge of their own GIS maps and applications and make them available on each department's Map Gallery.</p>	

City to monitor its fleet of vehicles and their status “live”. The application was used internally, however, this year an [external version](#) of Warrior Watch for the public use was successfully launched as well.

- [311 Requests Heat map](#) helps the Department of Public Service as well as the public to gauge the intensity and type of 311 requests in various intervals and that equips them with information to deploy their staff more efficiently.
- The Public Health Department was able to concentrate its efforts and outreach to areas with high concentration of Mumps by mapping those cases and therefore, directing resources where it counted the most. The department also uses GIS to map where they [spray](#) based on the volume of [mosquitos in traps](#) and also those that test positive for the [West Nile](#).
- Departments of Public Service and Public Utilities both use the [Capital Improvement Projects](#) (CIP) application to decide where and when they should embark on a new project or inform each other of projects that might benefit from coordination between both departments.
- Through a collaborative effort with a consortium of five universities, historic maps of the City (1899 thru 1920) were scanned and mapped and various historic landmarks and Census data (1930) were collected and included in a comprehensive [Map Gallery](#).

17. Please provide up to three examples of innovation in the delivery of products and services **by local businesses and institutions**, including new business formation.

Name	Description	Incentives (if any)
Nationwide Children's Hospital	The Research Institute at Nationwide Children's Hospital is one of the fastest growing pediatric research institutions in the country and consistently ranks among the top ten of free-standing children's hospitals for National Institutes of Health funding (currently ranked sixth). Our science improves the health of children globally to the extent that our discoveries are shared among the public, government leaders, and medical and research communities. Each year, our clinicians and scientists publish more than 500 peer-reviewed studies in medical and scientific journals. The Center for Gene Therapy in The Research Institute at Nationwide Children's Hospital is an international leader for investigating and developing gene- and cell-based therapeutics for neurodegenerative diseases, especially those that develop during childhood such as the muscular dystrophies and spinal muscular atrophy. Discoveries from the Center for Gene Therapy have resulted in three start-up companies focused on therapeutics for neuromuscular diseases:	City of Columbus Jobs Growth Incentive The Center for Gene Therapy was designated a Paul D. Wellstone Muscular Dystrophy Cooperative Research Center through the United States MD-CARE Act, which specified a number of provisions for intensifying research on muscular dystrophy, notably the National Institutes of Health's establishment of centers of excellence for research on these muscle diseases. Cooperative Research Centers promote basic, translational and clinical research and provide resources that can be shared within the national muscle biology and neuromuscular research communities.



	<p>Milo Biotechnology, Abeona Therapeutics and AveXis Inc. The Brian Kaspar Lab in the Center were the first to demonstrate that adeno-associated virus 9 (AAV9) targeted motor neurons effectively in the treatment of spinal muscular atrophy (SMA). A three-year \$3.6 million cooperative agreement from the National Institute of Neurological Disorders and Stroke (NINDS) to Dr. Kaspar funded pre-clinical drug development up to the filing of an Investigational New Drug Application (IND) to the Food and Drug Administration (FDA). The FDA recently granted fast-track status to begin clinical trials of this therapy which has begun enrolling patients. A different technology – software designed to accelerate the analysis of the billions of data points acquired from genome sequencing -- was developed within the Biomedical Genomics Core at Nationwide Children’s and was recently licensed to the start-up, GenomeNext. Led by Dr. Peter White, the development and licensing of this software, named “Churchill”, is making the use of genome sequencing and analysis a more practical reality for use in the diagnosis and treatment of diseases. Churchill allows genome analysis in less than two hours. In comparison to other leading genome analysis products, Stanford University’s DNAnexus requires about seven days and the Broad Institute’s Appistry requires three days. Additional innovations studied at Nationwide Children’s include tissue engineering for blood vessels and intestines; the development of a simple urine test for early diagnosis and prognosis for preeclampsia, a major factor in preterm birth; and the ongoing studies of the exon-skipping drug eteplirsen, which is showing great promise as a therapy for children with Duchenne muscular dystrophy.</p>	
<p>ProteoSense</p>	<p>ProteoSense is developing a novel device to rapidly detect pathogens in the immediate environment. This hand-held rapid diagnostic tool is based on cutting edge technology developed at the Ohio State University and licensed to the start-up in 2013. The ProteoSense solid state biosensor can directly measure the presence and concentration of proteins in biomedical, environmental and food products within minutes. Unlike current methods which can be complex, expensive and time consuming, devices based on ProteoSense’s platform can deliver results with exquisite sensitivity and specificity in minutes. Although initially focused on food safety, a meeting between ProteoSense and Columbus area senior hospital medical executives arranged by TechColumbus changed that when they identified biomedical and environmental detection as a high priority.</p>	<p>ProteoSense has been funded to date by the company founders – who are successful, serial entrepreneurs – the TechColumbus Technology Concept Fund and the Ohio Third Frontier’s Technology Validation Startup Fund. ProteoSense is also actively pursuing several federal grants for rapid detection of Ebola and food borne pathogens that sicken consumers and damage the food supply.</p>
<p>HealthSpot</p>	<p>Founded in 2010, HealthSpot is healthcare, reimagined. A pioneer in connected care, HealthSpot has built a comprehensive healthcare delivery platform that combines cloud-based software with the HealthSpot station, digital medical devices and</p>	<p>\$50,000 Rapid Outreach Grant from the Ohio Controlling Board. Six-year job creation tax credit from the Ohio Department of</p>

<p>mobile applications to reinvent a visit to the doctor. Patients can get high-quality, affordable healthcare in a retail, clinic-like setting via high-definition videoconferences with interactive medical devices. HealthSpot's platform radically transforms today's healthcare system by enabling the delivery of quality, affordable medical care through a diverse professional care network for patients in efficient, convenient locations like pharmacies, hospitals, employer sites and more. In 2014, HealthSpot announced two major partnerships. Xerox Corporation invested in HealthSpot and will leverage its expansive IT infrastructure business process services expertise to help rapidly scale deployment of HealthSpot stations. One such major deployment is with HealthSpot's other recent announcement partner, Rite Aid. Rite Aid will be installing HealthSpot stations in retail pharmacies across Ohio, including the Cleveland and Dayton markets. Rite Aid visitors will be able to connect to providers from Cleveland Clinic as well as other top Ohio health systems. Most recently, HealthSpot's "doc in a box!" caught the eye Good Morning America, seen here - http://abcnews.go.com/GMA/video/convenient-doctor-checkup-checkout-27232378. For additional information please visit http://www.healthspot.net/.</p>	<p>Development worth up to \$424,000.</p>
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18. Provide up to three examples of **collaboration among business, government and institutions in the community to generate an innovation ecosystem** that contributes to local economic growth, attracts leading-edge employers and solves social challenges.

Name	Description	Year Started	Results to Date
APPS Program	<p>As a response to an increase of youth violence in Columbus in 2010, Mayor Michael Coleman instituted the Applications for Purpose, Pride, and Success (APPS) initiative, which aims, "To reduce the incidence of gang-related shootings and youth homicides in four targeted Columbus neighborhoods where shootings and homicides have historically occurred." The initiative has three major components: (1) prevention activities that target youth who have not yet become engaged in gang behavior, such as late night programming at recreation centers in the targeted neighborhoods; (2) intervention activities that include street-level conflict mediation by trained Intervention Specialists and case management provided by Case Managers; and (3) suppression activities that aim to increase collaboration with police to reduce gang-related violence. The initiative is modeled after the Gang Reduction and Youth Development (GRYD) program in Los Angeles, California, and much like the GRYD program, includes three primary strategies: prevention, intervention, and suppression. Together, these components aim to provide a comprehensive strategy to reducing youth and gang-related violence.</p>	2010	<p>The 2014 Capital City Nights Festival schedule included 12 events, the same as 2013. We were able to attract community partners and sponsors to the events that included NBC 4 News, Molina Health and 5/3 Bank.</p> <p>Through collaboration with the Columbus Police Department, the APPS intervention partner agencies Columbus Urban League(CUL) and Community for New Direction (CND) will be able to remain informed about incidences of youth violence within the four targeted communities, more effectively de-escalate volatile and potential violent situations, and share strategies for mediating and addressing tense situations once violence has occurred within a community.</p> <p>As of November 2014 there are roughly 80+ youth currently enrolled in case management between the two partner agencies, (CUL and CND). Essentially, sustained success with reducing crime and violence rests on our ability to engage youth and build enough trust and rapport that cause them to accept and receive the services they need for themselves and their families from our partner agencies and network of service providers.</p>

Neighborhood Pride	<p>Neighborhood Pride is a team effort by City departments, neighborhood groups and individual residents, businesses, schools and other partners to make our neighborhoods safer and cleaner. At the core of the program is Neighborhood Pride week, in which City crews provide a menu of services including street cleaning, pothole repair, bulk trash pick-up, litter and graffiti clean ups; sewer, fire hydrants and streetlight inspections; trimming of City trees, speed trailers to monitor speed; and mow and repair to neighborhood parks and recreational areas. Leading up to Pride week, City Code Officers inspect the exterior of houses and businesses to make sure that they are in compliance with the Housing, Zoning and Health, Sanitation and Safety Codes.</p> <p>During Neighborhood Pride week, an area church or community center is chosen as a host for the Neighborhood Pride Service Center. At the service center, a host of activities, free meals and social services and information are available to residents throughout the week. Columbus Public Health nurses provide health screenings, a loan officer is present to talk with homeowners about a home safe and sound grant to correct substandard, unsanitary conditions in homes within the Pride area, and City staff is present to answer questions. During Pride week, free lunch and breakfast is provided to all who live or work in the community, thanks to the food donations of area businesses, called "Pride Partners."</p> <p>During Pride week, educational sessions are offered to the community. "Lunch and Learns" cover a wide variety of topics including Organ and Tissue donation with Lifeline of Ohio, Emergency Preparedness with American Red Cross and How to Use the City's 311 Call Center. The Neighborhood Safety Academy on Tuesday night trains citizens on safety issues and problem solving. Classes are taught by Columbus Division of Police, Columbus Division of Fire and Neighborhood Pride Partners. Wellness Wednesday begins with a healthy breakfast, a visit from the Columbus Library Bookmobile, and children's activities. At lunch, Staff from Columbus Public Health Department answers questions about nutrition and wellness. Health screenings are free to the community from Columbus Public Health,</p>	2000	<p>In the 15 years of the program, 84 communities within Columbus have been affected. Thanks to donations from The Columbus Blue Jackets and Nationwide Children's Hospital, over 25,000 helmets were fitted on area school children between 2004 and 2014. Area middle school students selected to work with the Neighborhood Pride Talent Show have the opportunity to work with arts mentors and perform at a holiday event in December in exchange for committing to community service hours for the neighborhood they represent. Neighborhood Pride through the Neighborhood Pride weeks and activities, the Neighborhood Safety Academy, Wellness Wednesday, the Bicycle Safety Festival, Talent Search, CBUS Mobile City Hall and Mayor's Block Party have worked with Columbus residents with the focus of safety, education, wellness and community engagement, tools for a vibrant and exciting future. The program raised over \$900,000 in in-kind donations and services that have gone back to the community.</p> <p>At the Mayor's Block Party, over 80 businesses, non-profits, schools, social service agencies and agencies from the county, state and city participate in providing a free day of family fun. Several of the partners provide free school supplies or free food in addition to their services. The focus of the festival is wellness, parenting, education and safety. Over 2,000 attended in 2014. (Due to rain)</p> <p>New in 2013, Columbus' Mobile City Hall, "The CBUS" came out to Neighborhood Pride weeks, providing wifi access and the technology to residents and City staff, providing ease of access to a variety of online services including how to make 311 service complaints, apply for a</p>
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Luebbe Hearing and other partners. And the day ends with a community bike ride led by Neighborhood Pride, Columbus Public Health Institute for Active Living and Columbus Police. Thursday night, Mayor Coleman and his cabinet come to the neighborhood for a town hall style meeting in which questions are answered. And on Friday, residents and businesses join together for a community cook-out.

Neighborhood Pride, partnering with Franklin County Children Services, coordinates a one day festival; Mayor Coleman's Block Party in August at downtown Columbus Commons Park that is free-and-open to the public. The Neighborhood Pride program also takes the Bicycle Safety Festival and the Mobile City Hall out to the public at several Columbus area festivals.

City of Columbus job, apply or renew Franklin County dog licenses, pay City of Columbus water bills, and learn about City initiatives and programs. In 2014, the Mobile City Hall answered questions from citizens at festivals across the City including Jazz & Rib Fest, International Festival, Kidzapalooza and Hot Times. Neighborhood Pride is a year round program, with the Mobile City Hall and the Bicycle Safety Festivals held at festivals across the City, the Neighborhood Pride week events occur between May – October during the year and The Holiday Party and Talent Show is December. The neighborhoods who receive Neighborhood Pride must be supported by an area commission, block watch or civic association. The neighborhoods apply for the program, and only 4 neighborhoods were selected in 2014.

<p>The Ohio State University</p>	<p>Sustainability at The Ohio State University is a business approach to create economic value embracing opportunities and mitigating risks that arise from social, economic and environmental developments. Ohio State integrates sustainable practice and programming across all university functions, spanning academics, research, operations, administration, and engagement. By leveraging opportunities across constituents, activities and divisions, we are creating a more sustainable future. Since Ohio State opened its doors in 1873, the university has embraced its land-grant mandate to bring the results of its academic and research prowess to the community by engaging and educating local, regional, and global communities on the principles of sustainability. Ohio State serves as a leader by bringing faculty expertise to bear on legislative policy, developing service learning opportunities, and forging partnerships with countless non-profits, industry partners, and peers in higher learning. The Office of Energy and Environment, through extension of the Office of Government Affairs, works extensively with government at all levels to supply energy policy advice and technical information, facilitating interactions between academic experts and policymakers. Ohio State's faculty and staff participate in and chair numerous local and regional partnerships to include the City of Columbus Mayor's Green Team, the Mid-Ohio Regional Planning Commission, the Public Utilities Commission of Ohio, and the Ohio Department of Natural Resources, providing leadership and support for sustainability efforts. Additionally, Ohio State has previously hosted the Big Ten and Friends Mechanical and Energy Conference bringing together energy leaders in higher education, industry and research colleagues, and students to discuss current energy realities and how to prepare for a sustainable future. By working with experts beyond the university, Ohio State faculty and staff will develop scientific and policy responses to the global need for sustainability. Direct engagement with the community remains one the most profound avenues by which to effect culture change on a broad scale, to this end, the Service-Learning Initiative supports development, implementation and evaluation of</p>	<p>On-going</p>	<p>The Medical Center Expansion and construction of the new James Cancer Hospital and Solove Research Institute and Critical Care Center supports 15,000 jobs: 5,000 construction 6,000 direct full-time and 4,000 indirect full-time jobs supported through spending by OSU and its patients and visitors. Economic Impact: This expansion project will generate \$1.7 billion impact by 2015. OSU already generates \$2.4 billion in economic impact each year. Community Revitalization: Funds from state tax incentives applied to the expansion will be used by OSU to contribute to Partners Achieving Community Transformation, a revitalization project in Columbus' Near East Side neighborhood. SUSTAINABILITY ACHIEVEMENTS: The Ohio State University made a public declaration of its commitment to work toward climate neutrality by signing the American College and University Presidents' Climate Commitment (ACUPCC) in 2008 and adopting a Climate Action Plan (CAP) in 2011. Amid constantly evolving economic, technological, political, and social contexts, Ohio State has made significant progress with the implementation of the near and mid-term greenhouse gas mitigation strategies set forth in the CAP while reassessing and refocusing long term strategies. Guided by the CAP, Ohio State has implemented a number of operational changes laying the foundation for successful GHG mitigation. The University Green Build and Energy policy, calling for all new construction and major renovation to meet LEED® Silver standards will reduce the impact of new fossil fuel demand, while a \$8 million energy conservation project in five campus buildings (Biomedical Research Tower, Physics Research Building,</p>
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sustainable service learning courses to develop student civic engagement and foster ongoing collaboration with local and global communities. Ohio State provides support to student groups in all areas to engage in the community from community litter clean ups, international humanitarian efforts, and local community development projects. Mutually beneficial partnerships and collaborations are central to both the definition of outreach and engagement and how the Office of Outreach and Engagement does its work. This office exists to work in collaboration with faculty, staff, students, and units to enrich Ohio State's partnerships with the community and to embed outreach and engagement into colleges and departments.

The university works closely with the city of Columbus, local businesses, and the community to improve economic growth, solves social challenges, and contributes to environmental sustainability in several areas including:

(1) THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER
EXPANSION -

The Ohio State University Wexner Medical Center LEED-Silver expansion is a \$1.1 billion revitalization of the research, education and patient care spaces, utilities, infrastructure and green spaces across our Medical Center campus, which includes the construction of the new James Cancer Hospital and Solove Research Institute and Critical Care Center. These improvements to our campus will make the care at Ohio State more predictive, preventive, personalized and participatory. We call it P4 Medicine and we believe it will fundamentally change the future of health care and dramatically improve people's lives.

(2) PARTNERS ACHIEVING
COMMUNITY TRANSFORMATION:

Partners Achieving Community Transformation (PACT) is a partnership between the City of Columbus, The Ohio State University, the Columbus Metropolitan Housing Authority (CMHA) and Near East Side stakeholders. PACT's vision is to create a healthy, financially and environmentally sustainable community where residents have access to safe and affordable housing, quality healthcare and education, and employment opportunities on the Near East Side of Columbus, Ohio.

Scott Lab, RPAC and Vet Hospital) is targeted to reduce the energy utilization of these buildings by an average of 30% in conjunction with retro-commissioning efforts in campus buildings. A new regional chiller plant provides efficient infrastructure reducing energy demand while meeting the needs of a growing hospital and the university academic mission. Ohio State has also made substantial investments in geothermal heating and cooling systems on campus in an effort to reduce energy costs and carbon emissions.

Understanding the role renewable energy technology will play in a climate neutral future, Ohio State has purchased 50MW of wind power generation capacity for the next 20 years, which is expected to account for 25% the university's electric power utilization.

Recognizing Ohio State's responsibility as one of the largest research universities in the nation, Ohio State has worked consistently towards meeting the climate neutrality goal, not only through operational initiatives, but by making sustainability a key component of the university's teaching and research missions. As one of the three Discovery Themes, a share of \$400 million has been targeted towards the hiring of tenured and tenure track faculty to explore, instruct, and innovate in the arena of Energy and the Environment. This investment will continue to support Ohio State's endeavor to provide an educational experience that inspires a new generation of global citizens. Achieving climate neutrality will require a varied suite of mitigation strategies. As existing technologies are improved and new technologies are developed, Ohio State will continue to evaluate and employ those best suited for

PACT's goals are to: 1) promote a healthy, culturally and economically diverse community 2) be a catalyst for continuing and expanding redevelopment efforts in the surrounding area and promote and protect commercial and retail development within the defined geography 3) provide recreational opportunities for children and families 4) provide education, job training & employment opportunities 5) include stakeholders in major decisions throughout the redevelopment process.

(3) ENVIRONMENTAL SUSTAINABILITY: OSU works on campus and in the community to improve environmental sustainability and conducts research in a comprehensive variety of clean energy and sustainability topics

(sustainability.osu.edu) and have many successes across these areas.

Additionally, Ohio State is using the campus as a living laboratory to test technologies, improve operations, and engage students in cutting edge research.

(4) HANDS-ON HELPING: CENTER INTEGRATES EDUCATION, OUTREACH:

The new Humanitarian Engineering Center aims to educate service-minded engineers, while accelerating the College of Engineering's efforts to create solutions for people in need and empower sustainable development at home and abroad. It will coordinate multiple initiatives, including courses, service projects, the humanitarian engineering minor and study abroad experiences.

(5) EMERGING DISEASES LINKED TO ANTIBIOTIC RESISTANT ORGANISMS

Alarming increases in antibiotic-resistant organisms have led the World Health Organization and the Centers for Disease Control to declare a global health disaster. Some members of Ohio State's faculty and their partners in South Africa are doing their part to combat these "superbugs."

This work on antibiotic resistance aligns with Emerging and Re-emerging Diseases – one of the initial investment areas in The Ohio State University's Discovery Themes Initiative.

(6) SCHWEITZER FELLOWS ENGAGE COMMUNITIES TO IMPROVE HEALTH:

The Columbus-Athens Albert Schweitzer Fellows program is a year-long fellowship in which graduate and professional students design and implement health-related community engagement projects.

effectively and economically driving carbon mitigation, reflective of the versatility of the faculty, staff, and students committed to achieving climate neutrality by 2050. Tackling these sweeping challenges is possible only at a university the size and complexity of Ohio State because breakthroughs in such areas are not possible without multiple perspectives and sources of expertise.

The Fellowship gave T.M. Ayodele Adesanya, an MD-Ph.D. student in biomedical sciences, a chance to help students at Champion Middle School.

(7) PRESERVING DIVERSITY IN THE SOUTHSIDE REVITALIZATION:

In neighborhoods of steep economic and racial diversity, such as Columbus' Southside, divides between the wealthy and impoverished can cause certain demographics to get pushed elsewhere during times of revitalization.

With the City of Columbus and Nationwide Children's Hospital putting forth efforts to restore dilapidated areas of the Southside to their former glory, the Kirwan Institute for the Study of Race and Ethnicity at Ohio State has partnered alongside them to help preserve the treasured diversity that the Southside has cultivated.

(8) HONDA / OSU PARTNERSHIP:

The Honda Partnership Program is a bilateral collaboration between The Ohio State University and Honda of America Manufacturing that supports initiatives in education, research and public service. The partnership dates back to the establishment of the Honda of America manufacturing facility in East Liberty Ohio in 1988, when an endowment for transportation research was established at Ohio State college of engineering in conjunction with Honda. That endowment now generates \$1.5 million in revenue annually to be invested in ground transportation programs in the college of engineering.

This collaboration positively impacts research, the development of technical professionals in the transportation field, and outreach to the broader community. This research has been influential in reducing worker injuries in automotive assembly, and other projects have dramatically reduced the energy required for climate control in painting operations. The Honda Partnership Math Medal program provides scholarships for 40 engineering students. These programs allow exceptional students to see that exciting careers in manufacturing and transportation are right here in Ohio.

(9) RESEARCH AND BUSINESS PARTNERSHIP CENTERS:

Fisher College of Business Research and Business Partnership Centers create the intellectual innovations that fuel business growth around the world. Many of the nation's most forward thinking companies

turn to Fisher faculty for new ideas and business solutions. Our research centers support teaching, research and development and provide a professional forum for exchange between faculty, students and the corporate community.
 Link: <http://fisher.osu.edu/centers>

19. What were the top three investments backed by angel, venture or other forms of risk capital in your community within the past 36 months?

Month/Year	Company Funded	Description	Value (USD)	Source of Funding
8/14	Beam Technologies	A data-driven startup and creator of the first connected smart toothbrush, will move its headquarters to Columbus and use \$5 million in financing from Columbus-based Drive Capital to accelerate product development and expand its team. The company and its founders are relocating from Louisville, Kentucky to be closer to Drive Capital and the Columbus business environment. 14 jobs were created	\$5 million	Drive Capital
3/14	Columbus Collaboratory	An advanced technology company, was founded with a \$28 million investment from seven of Central Ohio's top firms. The focus will be to address technology challenges in the areas of big data, analytics and cyber security and create solutions across industries, enhance operational efficiencies and improve service. The venture is expected to create 100 jobs over the next three years and identify the Region as a magnet for top IT talent worldwide. Columbus 2020 was influential in organizing the task force responsible to explore economic growth drivers and job creation opportunities within technology.	\$28 million	Seven Central Ohio top firms
12/13	Technology Concept Fund, LLC	Innovations with ties to The Ohio State University will get a financial boost from the new Technology Concept Fund, LLC. The million-dollar fund includes investments from OSU and Ohio Third Frontier. TechColumbus and OSU's	\$1 million	OSU, Ohio Third Frontier

Technology Commercialization Office are working to identify investment opportunities. TechColumbus will manage the fund. Companies eligible for investment will have a fully executed license or an option to license the technology from OSU and will be clients of TechColumbus. Industry focus includes advanced materials, alternative energy, information technology and life sciences. Successful investments by the Concept Fund will replenish its available capital for future rounds of investment.

**Indicator #4
Digital
Inclusion**

As broadband deploys widely through a community, there is serious risk that it will worsen the exclusion of people who already play a peripheral role in the economy and society, whether due to poverty, lack of skills, prejudice or geography. Intelligent Communities promote digital inclusion by creating policies and funding programs that provide “have-nots” with access to digital technology and broadband, by providing skills training and by promoting a compelling vision of the benefits that the broadband economy can bring to their lives.

20. Please describe your community’s digital inclusion strategy and outline its most important goals or priorities.

The Columbus Region is committed to digital inclusion and considers this to involve not only access to broadband, but also to computer hardware/software, training and the maintenance and support services required to help all citizens, including those with disabilities, overcome the digital divide. Although the quality, quantity and pricing of broadband services in Columbus are very favorable, progress is still being made within these other indicators that impact digital inclusion. Digital inclusion is one of the key pillars of the Mayor’s Broadband Strategic Plan and lays the foundation for the following: 1) Computer ownership 2) Computer maintenance and support in the homes, 3) Creation of Community Technology Centers (CTCs) to assist with technology access and training issues, 4) Encouraging more citizens to engage with the City through Web-enabled services such as e-government and bill paying, 5) Free wi-fi access at key civic centers such as the 32 Recreation and Park facilities, outdoor parks and King Arts Complex, 6) Adoption of the Seven Basic Principles of Universal Design to allow digital participation by people with disabilities.

21 Which of the following groups are the primary targets of your digital inclusion strategy, on which the majority of resources are concentrated?

- Low-income
- Elderly
- Geographically remote
- At-risk or criminal youth
- Disabled



22. Please describe up to three programs in your community that aim to increase digital inclusion by providing facilities, hardware and software, training and incentives.

Name	Funded By		Year Started
Columbus Metropolitan Library	<input type="checkbox"/> Local Gov <input checked="" type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input checked="" type="checkbox"/> Other	1873
Description	Results to Date		
<p>Columbus is home to one of the nation's top libraries. Columbus Metropolitan Library is the only public library in the U.S. to have earned all of the following: Hennen's #1 ranking, <i>Library Journal's</i> 5-star rating in all seven editions since its inception, <i>Library Journal's</i> National Library of the Year Award and the National Medal for Museum and Library Service – the nation's highest honor for libraries making a difference in their communities.</p> <p>CML is committed to providing digital access to information for all of Columbus' citizens. Access levels the playing field for low-income and at-risk populations in the education and workforce arenas. Key initiatives have played a part in providing this access.</p> <p>Homework Help Centers: Located in all 22 CML locations, Homework Help Centers have dedicated staff and volunteers to help K-12 students with skills to succeed to and through college. Computers with access to hundreds of valuable research tools plus free use of printers provide students with the means to complete their homework if they don't have access at home. New this past year: Students log into a web portal using their library card each time they use the center. They earn digital badges that provide incentives for achievement.</p> <p>Partnership with Columbus State Community College: CML has partnered with Columbus State Community College (CSCC) to provide its thousands of students free access to the school's servers through the desktop of any of the library's 800 public computers at all 22 locations. Students can log in and access their coursework via CSCC's Virtual Computer Commons icon. Also, in CML's new Driving Park Branch, which opened in July 2014, a room with eight dedicated PCs has been designated for use by CSCC to offer students and prospective students distance learning courses, proctored exams, enrollment and financial aid seminars and more.</p> <p>Updated Technology: The new Driving Park Branch is Columbus Metropolitan Library's first new branch in a decade and the model of CML's vision for a 21st century library. Young customers can explore the expansive children's area and discover the many learning apps available on iPads. Approximately 50 public PCs give access to a community in which few residents have computers in their homes. Interactive whiteboards in the Homework Help Center and children's area allow students and soon-to-be</p>	<p>CML's Homework Help Centers saw 2,000 more visits of K-12 students during the 2013-14 school year than in the prior school year. With upgrades to technology and increases in physical space, the library anticipates these upward trends to continue.</p> <p>While it is still too early to provide any substantive outcomes of CML's partnership with Columbus State Community College, the potential for making significant impact is immense. With icons on each of the library's 800 public computers – not to mention the dedicated space at the new Driving Park Branch – CSCC students have 22 auxiliary sites from which to do their college coursework, take exams and attend workshops.</p> <p>The new Driving Park Branch, which is more than double the size of the old branch, opened in July 2014. In October 2014, circulation increased 150% when compared with October 2013. In similarly analyzing these same months, user visits increased by nearly 70% and computer reservations increased by more than 75%.</p>		

students to learn how to use technology now found in many schools.

Name	Funded By		Year Started
Per Scholas Columbus	<input type="checkbox"/> Local Gov <input checked="" type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input checked="" type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input checked="" type="checkbox"/> Other	2012
Description	Results to Date		
<p>Through its accelerated, technology-focused IT-Ready job training, Per Scholas helps unemployed and low income adults gain the skills they need to earn industry-recognized A+ certification and then find entry-level employment in IT jobs that lead to careers. Per Scholas, which is headquartered in Bronx, NY, has delivered this type of tuition-free IT job training for 20 years with great success.</p> <p>We deliver four IT-Ready classes every year to train 80 unemployed or low income adults. Our job training is a fulltime commitment: Monday through Friday 9am to 4pm. Students spend four days in the IT lab with our technology instructor learning about computer hardware and software, installing printers, setting up networks, troubleshooting mobile devices, etc. They spend one day a week with our career development specialist learning job search strategies—interviewing skills and resume writing—as well as addressing important topics like diversity in the workplace, effective communication and conflict resolution. Per Scholas IT-Ready graduates have a solid combination of technical skills and 21st Century competencies they need to be successful on the job. Per Scholas leverages volunteers from the business community to engage with our students as industry mentors and classroom speakers. IT-Ready students benefit from hearing directly from subject matter experts on topics ranging from the latest in technology to tips on how to dazzle recruiters. Each student participates in mock interviews with professional recruiters. These recruiters also offer critiques on the student’s resume and LinkedIn profile.</p> <p>Once on the job, savvy IT-Ready graduates can leverage the company’s tuition reimbursement to pursue college coursework or a degree. All IT-Ready graduates who are A+ certified are eligible to earn two additional certifications (Network+ and Security+) for free in an online, self-pace format.</p>	<p>The outcomes are: of the 147 enrolled across eight classes: 88% graduated; 85% earned certification; and 79% (so far) are employed in IT.</p> <p>Students in Per Scholas IT-Ready training are diverse. Over half are from racial/ethnic minority communities, a third are women, and range in age from young adults (18-to-24) to seasoned professionals (50+). They represent a variety of backgrounds and experiences. They come to us from across the Columbus region, and each has a unique story behind why they seek IT-Ready job training at Per Scholas.</p> <p>While wages in Columbus for entry-level IT jobs range between \$12 and \$15 an hour, the average wage for Per Scholas IT-Ready graduates is \$14.29 (\$29,732 annually). Many local employers, especially larger corporations, hire entry-level IT like help desk positions, through staffing agencies or on a contract basis. That arrangement works well for many IT-Ready graduates who because they are changing careers and lack experience in IT. These short-term assignments allow them to gain real work experience, to demonstrate value to employers and to see various aspects of the industry to determine where to focus their long-term career goals and aspirations.</p>		

Name	Funded By	Year Started
TECH CORPS	<input type="checkbox"/> Local Gov <input type="checkbox"/> State/Prov Gov <input type="checkbox"/> National Gov <input checked="" type="checkbox"/> Private sector	<input type="checkbox"/> Academic institution <input type="checkbox"/> Public-private partnership <input type="checkbox"/> Other 1999
Description	Results to Date	
<p>The Mission of TECH CORPS' is three-fold and is achieved through:</p> <p>PROGRAMS Bringing additional technology resources to K-12 students and teachers through national, state and local programs such as Camp IT, Student TECH CORPS, Student WEB CORPS, TECHie Camp, and TECHie Club.</p> <p>PEOPLE Recruiting and supporting tech-savvy volunteers from the community to advise and assist schools and youth-serving nonprofit organizations in the integration of new technologies.</p> <p>PARTNERS Increasing educational technology resources through partnerships with education, business, government and community.</p> <p>With seed funding from Battelle, JPMorgan Chase and The Columbus Foundation, TECH CORPS launched programs in Ohio in 1999. Since that time well over 1,000 TECH CORPS volunteers have shared their time and talents with more than 325 schools and youth-serving organizations in 26 Ohio counties. Thousands of Ohio students have benefited from TECH CORPS programs.</p> <p>Through the development of engaging technology programs and the use of tech-savvy community volunteers, TECH CORPS is building a sustainable and replicable "pipeline of support" which stretches from elementary school through high school. Students entering this pipeline incrementally build critical technology and 21st century skills tied directly to their future educational and professional success. Ultimately, the pipeline produces students with the necessary skills and networks to participate fully, and assume leadership positions in a technology-driven society.</p> <p>TECH CORPS develops Computer Science and IT programs and deploys talent to implement those programs. TECH CORPS signature programs include: Techie Camp, a week-long experience covering topics such as programming, web development, robotics, or app development for 3rd-8th grade students; Techie Club, an afterschool program with 40+ hours of hands-on, activities tied directly to national Computer Science standards for 3rd -- 6th grade students; Student WEB CORPS, a program that provides high school students with a suite of web development, project management and professionalism skills and then challenges them to apply those skills in the authentic task of building a website for a small business or nonprofit organization in their community; WiE Techie, an all-girl First Lego robotics team, support by OSU female engineering students.</p>	<p>Since 1999 nearly 1,000 TECH CORPS volunteers have shared their time and talents with more than 300 schools and youth-serving organizations in 26 Ohio counties. Thousands of Ohio students have benefited from TECH CORPS programs (a large majority of these in Central Ohio) delivering in-person support valued at more than \$2 million.</p> <p>Based on the success of the Ohio program, in 2011 the national TECH CORPS charter was transferred to Ohio and the original director of the Ohio program was named the new TECH CORPS National Executive Director. In this new role, she works to build the organizational infrastructure and partnerships to expand the programs developed and tested as best practices in Central Ohio to students across the US.</p> <p>TECH CORPS receives support from a blended source of entities including corporate and community foundations, small and large corporations, local government, public agencies as well as individuals. In 2009, TECH CORPS introduced a social enterprise business model. Last year, nearly 20% of TECH CORPS' revenue was generated through earned program income.</p>	

**Indicator #5
 Marketing &
 Advocacy**

A community’s citizens can be a barrier to progress by resisting change, or can become its most powerful advocates for a better future. Intelligent Communities work to engage citizens and organizations as champions for change. They are also effective marketers of their digital age advantages for economic development purposes.

23. Describe up to 3 policies or projects led by local government, business or institutions that **educate citizens on issues of importance to the community’s future and encourage them to participate** in creating needed changes.

Program	Description
Columbus 2020	Columbus2020, the region’s economic development strategy launched in 2010, is aggressively working to attract, retain, expand and create jobs. In the first three quarters of 2013 alone, a team of economic development professionals has visited with businesses in 28 cities, in 21 states and 4 countries. Efforts have contributed to announcements made by public and private sector partners in the 11-county Columbus Region that include 63 projects that represent a combined total of over 5,000 jobs from new and expanding businesses, and an estimated 2,500 retained jobs. The initiative has secured pledges of \$30.2 million over five years, including \$6.5 million this year, through more than 200 public and private partners. In addition Columbus2020 was selected to serve as a network partner to JobsOhio, the state’s new economic development strategy. Columbus2020 will be the liaison with an 11 county region.
TechColumbus	TechColumbus, Inc. is a public-private partnership whose mission is to advise and invest in high-growth, high-technology companies with the potential to create and anchor significant new wealth within 15-county Central Ohio region. Originally chartered in 2005, TechColumbus collaborates with and receives substantial financial support from corporate, academic and governmental entities committed to advancing an entrepreneurial based innovation economy within the Greater Columbus Region. TechColumbus fulfills this mission through distinct but closely related initiatives: TechColumbus’ team of seasoned professionals – many of whom are experienced entrepreneurs or startup executives in their own right – provide direct advice and guidance relating to starting and building a successful venture., TechColumbus requires all entrepreneurs to complete Concept Academy™ where, during three days over two weeks each entrepreneur determines if there are real customers and a viable market for their innovation. This early validation eliminates the single greatest cause of startup failure: insufficient customer interest or demand. TechColumbus introduces startups to advisors with relevant, critical domain expertise who can assist them with immediate problems, through the First Connect program, potential customers and channel partners. Next, TechColumbus evaluates each startup to determine their capital needs, development and growth objectives for a fit with TechColumbus’ Concept and Seed investment funds. During this phase – and depending on the Company’s needs – TechColumbus attempts to identify other potential financial or strategic investors. TechColumbus also manages a 64,000 sqft accelerator configured such that it can house 35 – 40 emerging growth Information, Life Science, Energy and Materials technology companies. To date, TechColumbus has invested over \$12 million in 140 companies, leveraging \$540 million in co- and follow-on investment. These companies have generated over \$260 million in revenues and created over 800 new jobs.
City of Columbus, Department of Development and Department of Public Utilities	The Department of Development has maintained a neighborhood planning programs for over 30 years. It is based on the premise that merging technical knowledge and expertise with public input provides a strong basis for establishing future development policies. The Planning Division engages a neighborhood via a structured and consistent methodology to identify issues and

solutions relative to land use, urban design and development challenges. At the first public workshop, city staff presents its findings from a technical analysis of the neighborhood and neighborhood stakeholder interviews. Participants are asked to comment on these results, as well as share their thoughts regarding the future of the neighborhood. Follow-up surveys are posted on the city website at each phase of the project to gather additional input. At subsequent public meetings, city staff shares with the public land use and development concepts, and development policies for review and comment. Finally, a draft plan is presented at a public open house and then voted on by the neighborhood's area commission (official city body charged with representing the neighborhood's interests). The City of Columbus is currently developing a true Multimodal Thoroughfare Plan to improve safety, reduce congestion, assist children and the elderly, and promote economic development, fitness and environmental responsibility. The Multimodal Thoroughfare Plan is being developed with the latest best practices in conducting a transportation needs assessment based on technical analysis of public rights of way. The analysis uses GIS to identify predominant types of travelers using the roadway system to allow planners and engineers to assign appropriate facilities, such as sidewalks, bikeways, wide transit lanes, pavement treatments for freight and bus pads, etc. The study uses data and technology to plan for thoughtful investments for a multi-modal transportation system plan. It will also provide Complete Streets design guidelines to support standards that blend across neighborhoods. The project will follow an inclusive public involvement plan that outlines measurable objectives, audiences, tactics, and schedules. As part of this effort, the City of Columbus will develop a project brand that will convey, in a visual and compelling way, that this is a Multimodal Thoroughfare Plan and create buy-in and engagement. Additionally, the Department of Public Utilities, Blueprint Columbus, is a new approach being developed by the City of Columbus to eliminate the source of sanitary sewer overflows. The potential benefits of this approach are significant. First, there are environmental benefits. It is likely that this plan will significantly improve water quality compared to the gray infrastructure planned in the WWMP. In addition, green infrastructure has been recognized as providing many ancillary benefits, such as air quality improvements, habitat and more. It will also put Columbus ahead of stormwater regulations that are eminent.

24. Please give up to two specific examples of communications programs – aimed at people or organizations **inside your community** – that focus on your Intelligent Community initiatives and successes. Include hyperlinks where available.

Marketing Programs or Materials	Intelligent Community initiatives featured; how explained
Greater Columbus Arts Council	In 2014 the Greater Columbus Arts Council and the Columbus Cultural Leadership Consortium embarked upon a collaborative arts sector marketing and branding project designed to raise the visibility and awareness of the vibrant cultural sector in Columbus, locally, regionally and nationally. The Columbus Cultural Leadership Consortium is comprised of the 17 largest cultural organizations in Columbus and the Greater Columbus Arts Council funds those organizations as well as many other smaller cultural institutions and artists throughout the city. Through an inclusive process that included stakeholder interviews with arts, civic and business leaders, a literature review of recent studies and ongoing work with a core team representing CCLC and three other key community partners--The Columbus Foundation, Experience Columbus and Columbus2020--the effort is creating an identity for the sector that expresses the passion and potential of the entire sector focusing on individuals' contributions and talent.; and bring it to life in an community wide umbrella marketing campaign, as well as within each organization's strategic and tactical marketing/communications programs. The campaign will seek to create increased public and corporate awareness, engagement and investment in the

	<p>cultural sector, and increase earned income through increased ticket sales. A key component of this will be the innovative "Civic Connect" platform allowing event information from organizations to be overlaid and integrated with other key civic data. The following long term outcomes are sought, many of which have already gained strong foundation through the efforts to bring the campaign to life. 1) Culture and arts will form a significant differentiator for Columbus and contribute to its overall economic development. 2) Cultural and artistic experiences will be recognized as essential to learning - for children and adults. 3) City and regional planning efforts will include arts and culture representatives. 4) The funding model for arts and culture will become deeper and more diversified. 5) There will be a productive and seamless interface between the for-profit and the not-for-profit arts and culture sectors of the community. 6) Columbus will attract and retain groundbreaking, world-class artists and organizations of all disciplines to add to the creative vitality of the city.</p>
FirstConnect program	<p>Originally called First Customer, it was conceived by Columbus 2020 as a mechanism to introduce early stage companies to local, potential customers. TechColumbus was given responsibility for the program about 9 months ago because it aligned with the TechColumbus mission to serve startups. Since then, TechColumbus has adapted the model to introduce companies to their bigger brothers and sisters much earlier in the development process. The intent is to have entrepreneurs meet with more mature companies before the products are taken to market. This way they get critical insights into usage, specifications, and real customer requirements. TechColumbus believes this could shorten the development time for startups and, in fact, result in local purchases. This program involves TechColumbus, Columbus2020, the veritable who's who of local corporations; OSU, Battelle, Nationwide, Childrens' all actively participating in an act of enlightened self interest to help startups and quite possibly find early access to products or technologies that give them a competitive advantage.</p>

25. Please give up to two specific examples of communications programs – aimed at people and organizations **outside your community** – that feature your Intelligent Community initiatives and successes. Include hyperlinks where available.

Marketing Programs or Materials	Intelligent Community initiatives featured; how explained
National Ad and PR Campaigns	Ad campaigns running on Fox.com, TIME.com and local news sites across the country. 30 second TV and online spots – ran in Times Square, on Golf Channel, Fox.com, TIME.com.
Comprehensive Economic Development Strategy (CEDS)	Under guidelines set forth by the US Economic Development Administration, Columbus 2020 has developed CEDS as a comprehensive strategy and strategic framework for economic development in Columbus. The CEDS was submitted to the US Economic Development Administration. CEDS is designed to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen regional economies. http://columbusregion.com/ceds

26. Please provide up to three success stories of business formation, growth or attraction in your community.

Company	Description
IBM Analytics Center	IBM has chosen Columbus as the location of a first of its kind Advanced Analytics center. The principal mission for this client center is to design, build, implement, and support differentiated advanced analytics solutions and foster a rich environment for collaboration, innovation, and delivery by bringing together the business, technical and academic communities. As part of the overall Columbus 2020 mission, this center will nurture new analytics talent for the client center and broader community, making Columbus home to some of the best and brightest minds in the IT industry." Also, "Ohio State University and IBM are



	collaborating to create undergraduate and graduate programs in analytics to increase the limited talent pool in this rapidly growing field." It should be further noted that the center came to be located here after the region's formidable corporate powers, including Cardinal Health Inc., Nationwide Mutual Insurance Co., Huntington Bancshares Inc. and Limited Brands, Inc., joined forces in seeking an IT company to put a "big-data" center in Central Ohio. It is projected that the impact of the IBM Advanced Analytics Center will go well beyond the 500+ jobs. Many of the region's IT services and business intelligence consulting companies predict the IBM center will lead to increased need for ancillary services that their companies can provide -- thus leading to additional high paying jobs being created around the center, as well as within the center. Studies indicate "Big Data" is set to become one of the fields in highest demand over the next decade, and yet advanced degree programs in this field are in their infancy, with the first formal master's degree in predictive analytics being only a little over two years old. The IBM Advanced Analytics Center represents not only employment in the region now, but a pathway to high paying knowledge jobs in the future as Columbus establishes itself as a leading center for the analytics workforce.
Quantum Health (Business Expansion)	Quantum Health, a health benefits management company announced it will add 525 jobs in Columbus over the next three years, tripling its size.
Manta Media (Business Formation)	Launched in 2005, Manta Media is an excellent example of the type of company being formed as a result of the Columbus Region's entrepreneurial ecosystem. Manta is the world's largest online community for promoting and connecting small- to medium-sized businesses. With more than 1 million registered users and nearly 64 million company profiles, business owners and professionals use Manta to promote and differentiate their offerings and "be found" online by customers and prospects. Manta is ranked the third largest business news/research Web site by comScore and has an audience of 26 million from the US and around the globe. Manta is included in Business Insider's SAI Digital 100: The World's Most Valuable Startups. Launched in 2005, Manta is privately held.

Indicator #6
Sustainability
 (test questions)

Communities that use fewer resources to create products and provide services are more efficient and productive, which is key to continued improvements in standard of living. Many if not most sustainability measures improve local quality of life, from cleaner air and water to improved public transportation and greater livability.

Communities that make sustainability a shared goal typically engage organizations, community groups and neighborhoods in sustainability programs and activities. These contribute to civic pride, local identity and mutual understanding. Responses to the following questions will not be included in the 2015 Intelligent Community of the Year selection but are being tested for use in future questionnaires. We appreciate your taking time to complete them.

- 27. Please report the annual average air quality reading of your community based on all available air quality readings in the municipality (ug/m3). 137 uxm3 - Ohio EPA, Franklin County monitors, 2012-2014 averages
- 28. What is your total residential and commercial indoor water use (litres or gallons)? 50,200,000,000 gallons of water were treated and distributed to 1,146,169 customers



- (43,798 gal/person) in 2013
 Litres Gallons
29. How many metric tonnes or tons of municipal waste goes to landfills from your municipality per year, after subtractions for recycling, composting and incineration? 2013, 286,942.47
 Tonnes Tons
30. What percentage of trips in the municipality take place without use of an automobile (transit, bike, walk) over the course of one year? 11.5%, Commuter Trips only, source American Community Survey 2013 %
31. Does the Mayor, Council and city staff provide visible support for sustainability initiatives? Yes No
32. How much public park or green space does your municipality provide, measured in square meters or square miles, including only publicly-available space? 10,830 acres of public park/green space - 16.92
 m² sq miles
33. Please provide any comments on the questions above that will help us improve them. Let us know if you were unable to report any of the information or any other issues you encountered.

We were unable to report a separate measurement for outdoor/indoor water use but we do know the total water distributed. We suggest that comparisons be made per capita.

**Theme
 Revolutionary
 Community**

The 2014-2015 Awards will examine how information and communications technology are changing the physical form of your city, the delivery of services and the urban and rural planning process. Your answers to the Smart21 questionnaire provided information on the status of planning. In addition to that data, we are seeking examples of transformation that can inspire other communities around the world.

34. Transforming the Physical Form of the City. Provide an example of an application of ICT in your city that has changed the community's physical form, from the impact of broadband on property development to changing transportation patterns or digitally-enhanced arts installations that create a unique sense of place.

Before there was Columbus, there was Franklinton, a settlement founded by Lucas Sullivant, a Revolutionary War era pioneer and surveyor who first came to central Ohio in 1795. Sullivant fell in love with the area and set up camp along the Scioto River. As was the custom of the time, Sullivant was compensated for his professional services through the granting of several thousands of acres of land at the fork of the Scioto and Whetstone rivers. Part of what attracted Sullivant was the rich, flat land along the Scioto which would make for good farming. In 1797 he began laying out what would become the first permanent settlement in central Ohio on the western bank of the Scioto River. He named the new town Franklinton in honor of Benjamin Franklin whom he admired deeply because of his courage, ingenuity and strong business sense – characteristics for which Sullivant himself would become known. In 1798, as Sullivant was measuring out the rich, fertile lands into 100- and 200-acre lot farms, Franklinton washed away during a spring flood before even one lot was sold. This would be the first of many floods that would devastate the area for years to come. As would prove to be the case over and over again, the same physical attributes and infrastructure (in this case the river and its fertile bottomlands) that provided Franklinton its greatest opportunities were also those that would present its greatest challenges. Undaunted, Sullivant moved back from the river and began again laying out the town. Fourteen years later when the State of Ohio decided to build the new state capital on the east side of the Scioto, across the river from Franklinton, Sullivant was, at first, a little perturbed. After all, he had already established a thriving community on the west bank, why couldn't Franklinton be the capital? But he didn't let his personal feelings get in the way of capitalizing on this new development. As the (then) town of Columbus was being laid out, Sullivant,

and his friend, Joseph Foos, set up a ferry service to take travelers across the Scioto. This was followed four years later by his building of the first bridge crossing the Scioto - an open toll bridge to accommodate more travelers than the slower ferry. Sullivant was building the infrastructure that would contribute significantly to the growth of Columbus.

Franklinton continued to prosper as a farming community, and with the onset of the industrial revolution, it became home to a growing manufacturing sector. In 1871, the town was annexed to the city of Columbus. But, the area was continually plagued by flooding, with the most notable being the Great Flood of 1913 which engulfed the neighborhood with 7 – 17 feet of water. This flood was a harbinger of future major challenges Franklinton would face over the next 100 years.

During the 20th century, construction of the city's inner belt, along with I-70, part of the federal Interstate Highway System, created barriers that isolated Franklinton and led to population changes that would lower property values, drive families out and destroy many of the historic buildings in the area. Once again, Franklinton was being challenged by the very infrastructure that was meant to bring prosperity to the growing city of Columbus and the rest of the nation.

Then, in 1983, the Federal Emergency Management Agency, struck what might have been the final blow to Franklinton when it declared almost all of the neighborhood to be a floodplain. The very physical attribute that had at one time made this such a vibrant and prosperous community now presented the biggest challenge to Franklinton's very existence. Building in the area was restricted by city ordinances and federal guidelines and those already living or conducting business in Franklinton were faced with exorbitant insurance premiums. A steady decline in the area led to vacant buildings, sub-standard housing, blighted neighborhoods and some of the greatest levels of poverty in the city. Early-on Franklinton had been nicknamed "The Bottoms" for its rich and fertile river land; by 1993, that nickname conjured a completely different meaning.

In 2003, Columbus City Council unveiled The Franklinton Plan. In addition to a frank and open assessment of current conditions within the neighborhood, the plan laid out strategies for improvements in land use and zoning, housing, parks, recreation and open spaces, traffic and streets, urban design, historic preservation and economic development. Key to this plan was the completion in 2004 of the Franklinton Floodwall, a decade-long initiative that would protect the area to crests of up to 30.9 feet and allow for the lifting of federal and city restrictions to development in the area. Another major element of the plan was the investment of \$40 million to restore the natural flow of the Scioto River by removing low head dams located both upstream and downstream. The result is 30 acres of new green space with bike and pedestrian paths aligning a re-sculpted river that is back to its original footprint and vitality.

In addition to these physical reformations, other transformative developments began to unfold, these powered by the infrastructure of the 21st century – broadband and ICT. Three ICT-enhanced anchors (COSI, CIF and STEAM Factory) are leading the charge to bring pride, investment and attention to Franklinton.

COSI - In 1999, Columbus' internationally acclaimed science center, the Center of Science and Industry (COSI) was relocated to the west bank of the Scioto River to anchor Franklinton's Scioto Peninsula. COSI houses the most significant collection of digital, linked assets of any science center in the world. These include a seven-story, 400-seat giant screen theatre, a 60-foot, 200-seat immersive dome/Planetarium, a 175-seat interactive video conference (IVC) theatre supplemented with an onsite IVC broadcasting studio, and an HDTV film studio which serves as the Public Broadcasting Station, WOSU, operated by The Ohio State University. Linking these unprecedented technology assets with OARnet (the state's fiber optic network) and the city's fiber network, Franklinton partners can create content capable of being broadcast around the world. In addition, these assets allow COSI to host community, innovation, and experiential events that foster more than a million annual engagements both on- and off-site. Increasingly COSI is becoming a nighttime destination, drawing a wide range of new visitors into the area to witness the rebirth of Franklinton.

COSI's ICT features also enable Ohio State to embed research within the center where the public can interact directly with, and become subjects for, OSU researchers. This relationship between a major university and a non-profit science center is the only one of its kind.

COSI further serves as the hub for all broadband entering Franklinton, with this access being fundamental to the organic growth of the neighborhood. Optimizing its link to OARnet, COSI is now working to further broadband connectivity for both community interaction and business development.

Columbus Idea Foundry (CIF) is the world's largest community makerspace which serves a creative collective of entrepreneurs, inventors, manufacturers and craftsmen in a 65,000-square foot, 100-year-old shoe factory located in the epicenter of the east Franklinton redevelopment. CIF's huge workshop features, among other assets, computer coding learning space, a wood shop, metal shop, kiln, laser cutter and even an IC3D three-dimensional printer. In addition to its creative role in the neighborhood, CIF serves to redistribute broadband to its 200 members, 25 current tenants and another 25 tenants projected in 2015. CIF further leverages its ICT and technology assets to provide those with limited education and training with hands-on learning opportunities and access to high tech tools that are critical to the building of a technically savvy and creative workforce.

The OSU STEAM Factory is an interdisciplinary self-formed group of more than 50 university professors located in Franklinton. Bridging “town and gown,” the STEAM Factory’s mission is to make sure no potentially transformative idea is left behind. This mission is empowered by ICT on all fronts, and in particular by allowing collaborations to move from physical to digital. Perhaps one of the most acclaimed of these efforts to date is Dr. Jim Fowler’s Calculus MOOC (massive open online course) available on Coursera which has attracted nearly 145,000 online students and been ranked in the top 3% of all offerings on Coursera. The 33-year old professor was recently dubbed the “King of Calculus” in a feature story published in the September 29, 2014 issue of *Forbes*.

The efforts of these ICT anchors are being supplemented by the East Franklinton Creative Community District Plan, which is facilitating the organic infill of restaurants, entertainment, a growing artists’ colony, mixed use housing, a nucleus of technology startups, and the relocation to Franklinton of Glass Axis, one of the nation’s largest teaching and working glass art studios. The result is an arts and innovation network, powered by ICT, which is bringing vitality to the formerly “shuttered” downtown community.

Throughout its history, Franklinton has been a prime example of how infrastructure that supported growth in one era, could actually become obstructive as times changed. From the beginning, Franklinton has been defined by its physical attributes and the prevailing infrastructure of the time. Founded because of the benefits afforded by the river and the rich fertile bottomlands, the neighborhood was subsequently isolated and cutoff by the river’s constant flooding and the building of highway infrastructure in the 60s. Today’s current revitalization is possible only because of key initiatives to alter the physical nature of the river and to pave the way for the infrastructure of the 21st century – broadband and ICT. Today, a new breed of pioneers is settling in Franklinton with the courage, ingenuity and strong business sense that would make both Benjamin Franklin and Lucas Sullivant proud.

[Story Map for Franklinton](#)

35. Transforming Services to Citizens. Provide an example of ICT delivering a new and valuable service to citizens that saves time or money, improves participation or enhances quality of life.

Concept Academy™ (new in 2014-2015) is a novel methodology developed by TechColumbus, Inc. that position startups for success. Going well beyond accelerators and other entrepreneurial assistance programs, Concept Academy provides entrepreneurs the tools and rigor to directly engage and evaluate potential customers within their target market – *before building their first product*. By carefully surveying and understanding buyers and users at the earliest stage of development, entrepreneurs quickly learn that customers buy products to fulfill specific needs or provide a competitive advantage, rather than buying what the entrepreneur has to sell. Understanding the true demand for a product reduces risk and the need to “pivot” – significantly changing the product or business model. Based on prior experience with this methodology by members of its team, TechColumbus believes delivering Concept Academy at scale could more than double technology startup success rates. TechColumbus has completed development for the basic program, piloting it with over 50 companies in 2014. Beginning in 2015, all companies requesting either startup advisory services or capital from TechColumbus must complete Concept Academy with demonstrable proof that a sufficiently large customer base finds the product compelling. Although most budding entrepreneurs will discover the market doesn’t want or need the products they’ve proposed, this process will make them smarter and more sophisticated entrepreneurs – much more likely to succeed with a future creation because they will have validated their customers and market first.

36. Transforming Involvement in Planning. Provide an example of the use of ICT to better engage citizens, organizations and other constituents in the process of planning and in managing the plan, with positive outcomes for the community.

insight2050 is a planning effort designed to prepare Central Ohio for future growth and its impacts. The project is a collaborative public-private effort with MORPC, Columbus2020, the Urban Land Institute Columbus, and the City of Columbus along with other communities in central Ohio. The region is slated to grow by more than 500,000 people and an additional 300,000 jobs by 2050. insight2050 strives to arm decision makers and stakeholders with solid and defensible data driven information about the fiscal, mobility, environmental, and public health impacts of development and investment choices. It is designed to provide local and regional policy makers, business leaders, developers, and public stakeholders with a clear and objective understanding to balance impacts from expected demographic shifts with existing and future development consequences. The analysis behind insight2050 relied on the RapidFire modeling platform developed by project consultants Calthorpe Associates. This model produces a dashboard of metrics, including land consumption, infrastructure costs, air pollution, household expenses for transportation and utilities, and public health and safety costs associated with varying degrees of land development densities. The metrics generated by the RapidFire model provide critical insights to public and private decision makers about the impacts of key policies, while also supporting conversations about the region’s future competitiveness, sustainability, and quality of life.

Ownership of Information

By submitting this information, the above-named community attests and acknowledges that:

- All information provided is accurate and fairly represents the past and current condition of the community to the best knowledge of the individual submitting the information.
- All information submitted to the ICF in connection with its international awards program becomes the property of the Intelligent Community Forum and will be used for the purposes of research, analysis and publication in pursuit of its global mission.

Intelligent Community Indicators

Broadband Communications is Internet access at speeds higher than dial-up, provided by DSL, cable modem, wireless, high-capacity data line or satellite. Broadband speeds range from a low of 128 Kbps up to 10 Mbps and beyond. Intelligent Communities express a clear vision of their broadband future and craft public policies to encourage broadband deployment and adoption.

Knowledge Workforce means a labor force qualified to perform “knowledge work” involving the acquisition, processing, analysis or use of information and the use of automation in manufacturing and manual processing. Intelligent Communities exhibit the determination and demonstrated ability to develop a workforce qualified to perform knowledge work. This is not simply a matter of possessing universities able to crank out post-grads with science and engineering degrees. Effective development of knowledge workers extends from the factory floor to the research lab, and from the loading dock to the call center or Web design studio.

Innovation. Intelligent Communities seek to foster or attract innovative businesses, because they are the ones that will grow in terms of employment and contribution to the tax base. These days, the word “innovation” tends to imply technology: the creation of tech clusters and the founding of the next Microsoft or Softbank. But innovation in other areas is just as powerful. Innovation may mean finding a better way to serve customers, ship goods, make reservations, or deliver information. More broadly, innovation is a process that leads to improvements in added value, whether incremental or radical, to markets, organizations, government, and quality of life. It is not the technology that matters — it is the change it makes in people’s lives. Intelligent Communities foster innovation and creativity within economic development programs and policies, for example, by creating an environment that attracts creative people, and by promoting the formation of, and access to, the risk capital that fuels new business

Digital Inclusion. The broadband economy promises to usher in a golden age of prosperity, knowledge and freedom. But it has just as much potential to usher in a “gilded age,” where the benefits go to a privileged few and fail to ignite economic growth. Intelligent Communities create digital inclusion by creating policies and funding programs that provide “have-nots” with access to digital technology and broadband, by providing skills training and by promoting a compelling vision of the benefits that the broadband economy can bring to all citizens. Digital access coupled with an intelligent community vision helps to create a culture of digital use with opportunities for varied social improvements and greater community cohesion.

Marketing and Advocacy. With markets, capital and business operations more global than ever before, employers and citizens enjoy a great range of relocation choices. Like businesses facing greater global competition, communities must work harder to communicate their advantages - both externally (marketing) and internally to their own citizens (advocacy) - and explain how they are maintaining or improving their position as wonderful places to live, work and build a future for people of all generations. Effective marketing is a necessary piece of the transformative process for Intelligent Communities.

Sustainability. To improve current living standards, while maintaining the ability of future generations to do the same, is at the core of sustainability. Throughout human history, economic growth has always involved the consumption of more resources and the production of more waste products. As humanity begins to push up against the limits of the ecosystem, we need to find ways to continue growth – with all of its positive impacts on the community – while reducing the environmental impact of that growth.

Success Factors

In evaluating nominations, ICF looks for trends that characterize successful Intelligent Communities. We suggest that, where appropriate, your nomination refer to the following success factors in describing your strategy and results.

Collaboration. The development of an Intelligent Community typically requires intense collaboration among government, businesses, universities and institutions. Few organizations have enough resources, political capital or public backing to drive a community-wide transformation. But collaboration is challenging. It demands vision, flexibility, and a high degree of trust among the partners. Intelligent Communities develop the vision, find the flexibility and create trusting relationships among key constituencies. Effective collaboration is typically the result of the working environment created by effective leaders.

Leadership. It is fair to say that no Intelligent Community has succeeded without strong leadership. Effective leaders identify challenges, set priorities, communicate a compelling vision and foster a sense of urgency in achieving it. They establish a collaborative environment that encourages risk-taking and creates win-win relationships with partners in government, businesses and institutions. It matters little where leadership comes from. In the Intelligent Communities that ICF has studied, leadership has emerged from elected officials, government employees, business executives, universities and nonprofit organizations. What matters is the character, motivation and talents of the individuals who commit themselves to improving the economic and social wellbeing of the community.