Database of Solutions for Digital Inclusion in Cities (Alpha Version)

Smart Cities for All

Acknowledgements

The development of this tool would not have been possible without the input of experts who are actively promoting and implementing greater ICT accessibility around the world. The following reviewers are gratefully acknowledged for their invaluable contribution:

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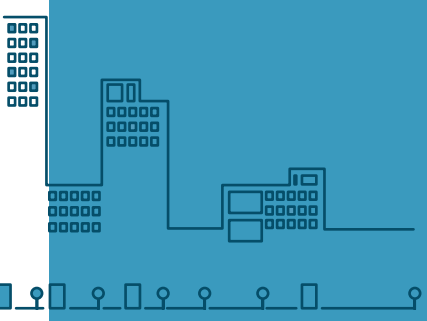

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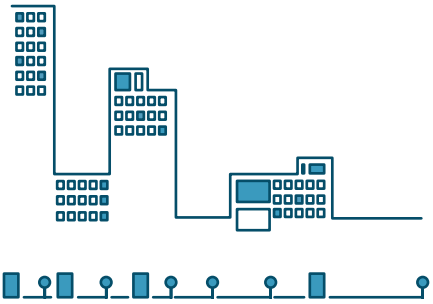
What is the Database of Solutions for Digital Inclusion?

This Database of Solutions for Digital Inclusion (the database) includes more than 350 existing products and solutions that can benefit the lives of persons with disabilities, older persons, and a diverse range of citizens living in Smart Cities. When the database is released for general availability, it will be useable by anyone who wants to find information about Smart City apps, services, products, companies, and organizations that support digital inclusion for persons with disabilities and older persons.

Each listing in the database includes a description of the solution, details its relevance to persons with disabilities or age related impairments, and includes an indication of its potential usefulness to users across 12 key impact areas such as independent living, transportation, health, employment, and financial services.

The database can be used as a reference guide for a range of individuals, organizations and professional roles related to Smart Cities, including recipients of services, government managers, policy makers, IT professionals, disability advocates, procurement officials, technology suppliers, and developers who design Smart City apps and solutions.



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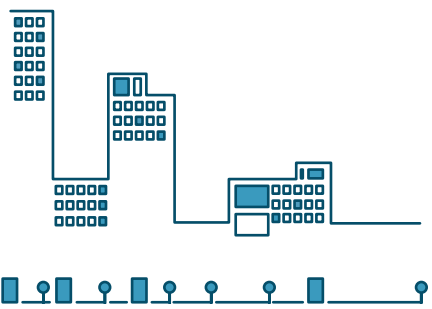
Why did we build the Database and what is next for it?

The Database of Solutions for Digital Inclusion is an Alpha version and will continue to evolve in the near future. There is currently no other database like it. G3ict and World Enabled developed the database in response to direct input from Smart City leaders worldwide. Experts from government, industry, and disability organizations expressed a strong need for a single resource of information about apps and solutions that could impact the lives of persons with disabilities and older persons living in Smart Cities. City officials in particular noted that such a database could help them stay informed of the latest solutions available in a rapidly evolving and global Smart Cities market.

Moving forward, G3ict and World Enabled are committed to continuing to refine and develop the database. We have created a roadmap to take the database from Alpha to Beta version, and we invite you to be involved in that work to expand and improve the tool. This document contains an overview and description of the tool and details ways that you can help to contribute to its development and the future launch of the Beta version.



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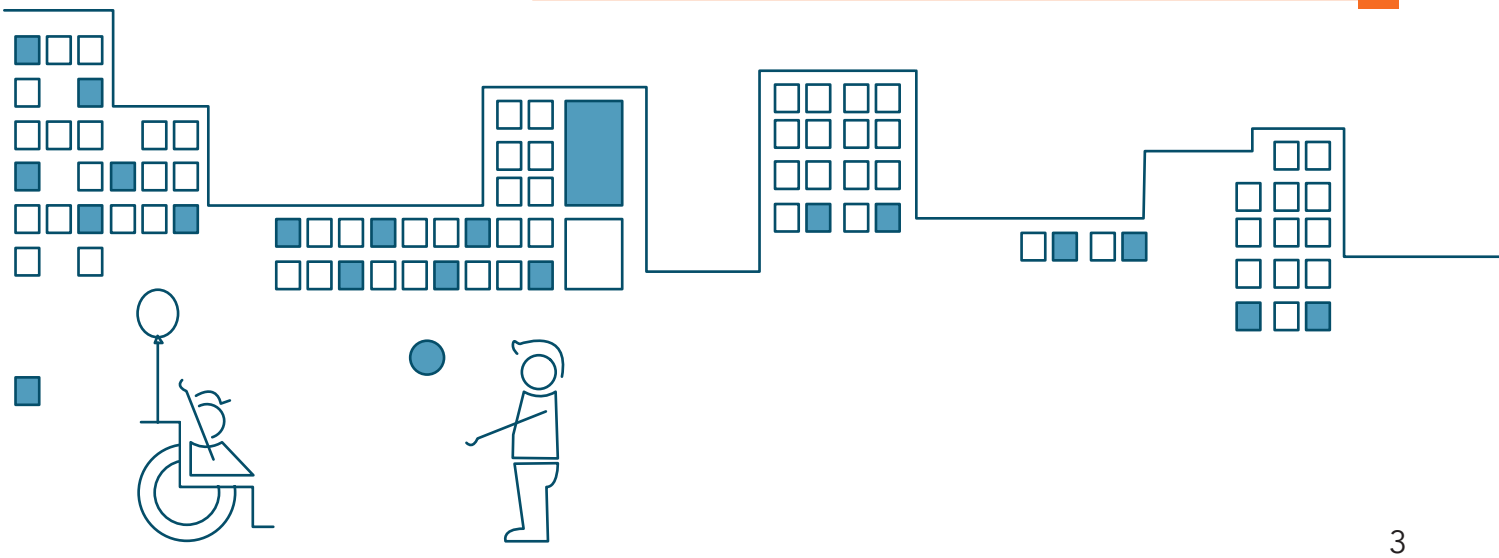
The Five Components of Alpha

The following five items are being released in May 2017 to provide public information about the initial Alpha version of the database:

Five Components of Database Alpha Version

1. Proof of Concept
2. Database Dimensions
3. Snapshot of the Database of Solutions
4. Roadmap for Alpha Testing
5. Call to Action



Proof of Concept

After launching the Smart Cities for All initiative in June of 2016, G3ict and World Enabled implemented a survey of more than 250 international experts, a series of roundtable discussions in global Smart Cities (Quito, Barcelona, London, San Francisco, and New York), and numerous 1-1 interviews with Smart City program managers, disability leaders, and technologists worldwide. Each of these important steps provided compelling justification for developing the database and insights to its design. More specifically, our Smart Cities for All research shows that:

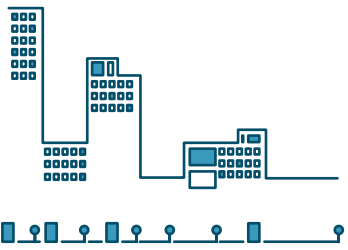
- Today, Smart Cities are failing persons with disabilities, according to 60% of global experts surveyed. Just 18% of them report that the Smart City initiatives familiar to them use international standards for ICT accessibility, indicating significant room for improvement. In fact, more than 90% of global experts agree that Smart City initiatives leveraging ICT accessibility would help persons with disabilities and older persons to be more included in their communities.

- Experts in both the global north and south (85%) consider a lack of awareness of disability and accessible technology to be the single biggest barrier to ensuring ICT accessibility is deployed in Smart City programs and solutions. In the global south, the second biggest barrier cited is a lack of technology solutions.

- Global experts identify a broad range of technologies (e.g. mobile technology, wearables, ubiquitous sensor networks, cloud computing, artificial intelligence, etc.) as useful in supporting the digital inclusion of persons with disabilities and older persons in Smart Cities around the world. More than half of those surveyed (58%) specifically call for an inventory of accessible solutions as a top strategy to address digital inclusion in Smart Cities.

Beyond the expert survey, the Smart Cities for All global roundtable discussions and 1-1 interviews helped refine an understanding of both why and how a database of Smart City solutions could support digital inclusion in cities around the world.

Based on this considerable input, the database framework was developed, reviewed, and tested with experts, including from the disability community, to ensure the Alpha version was aligned with project goals and global needs. That input also helped to create a clear roadmap for continuing to evolve the tool.



Database Dimensions

The database of solutions is organized around three key dimensions. These dimensions were informed by global expert input to define the most important requirements of a database resource and the best ways to effectively display information in a searchable and user-friendly format.

The three key dimensions are:

- The disability or impairment addressed by the solution – the database must clearly define how the solution or service directly benefits or addresses a specific impairment.

- The impact area associated with the solution – All solutions are divided into one of 12 areas where, if the solution is accessible, it can positively impact a person with disabilities or an older person. The 12 impact areas covered include independent living, transportation, e-government, employment, civic engagement, safety and justice, healthcare, entrepreneurship, emergency response, education and training, voting and elections, and financial services.
- The device platform and operating systems – this ensures that people searching the resource will be able to locate specific solutions that are available for the technology devices or services they use.

As part of the internal alpha testing, we have already started working with experts to review the more than 350 solutions currently in the database according to the above three dimensions.

A Snapshot of the Database of Solutions

In the Alpha version, we provide examples of solutions for digital inclusion across each of the 12 impact areas. This includes a short description of how these solutions are effectively being deployed and highlights which impact areas are well represented by the database resource and which areas require additional focus.

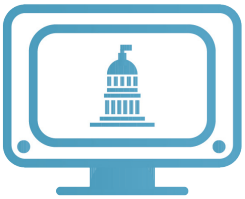
The 12 Impact Areas and Examples

Community and Independent Living

Velasense is a mobile app that delivers real-time feedback about people, objects and surroundings, including through tools for recognizing text, colors, currency, barcodes, and familiar faces. It helps people with visual impairments obtain additional information about their surroundings instantaneously.

Transportation and Mobility

City SoundScape and CityScribe, developed as a collaboration between UK Guide Dogs and Microsoft, provide real-time 3D audio navigation, personalized content, and new experiences for users with visual impairments moving around their city.



Online public services and e-government

CUIDAPP was launched by the city of Guadalajara, Mexico and provides citizens with a direct personalized channel to city alerts, events, services, reports, and important decisions. The app also allows citizens and public servants to connect with each other.

Employment opportunities

Roger Voice supports people who are deaf or hard-of-hearing and provides quality, private, real-time phone calls with speech recognition and auto-captioning. In Paris citizens who are hard of hearing use this tool to get better results in recruiting, interviewing, and hiring employees who may be hard of hearing.

Civic Engagement

South African company Intervate's Smart Citizen solution empowers citizens to use their smartphones to report issues like potholes, water leaks, or broken traffic lights. Intervate has begun exploring developing a new "Accessibility" issue category for reporting accessibility issues, e.g. on problems with Wheelchair Ramps, etc. spectrum.

Public Safety and Justice

The Buenos Aires Supreme Court partnered with Lagash to deploy a portal, called Augusta, and digital services that make accessing the courts more efficient for citizens. Augusta, uses different media (videos and documents), digital signatures, etc. to allow citizens to manage their participation in the court system electronically and remotely.

Emergency Preparedness and Response

In Quito, Ecuador, the RED ALERTA platform has been developed by Simauxcorp to assist with citizen communications and security. It allows communication of family emergencies to private circles of people such as select relatives or friends as well as city-wide communications in the case of natural disasters or other

Healthcare and Medical Services

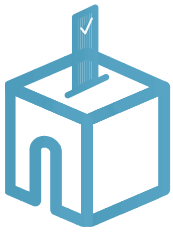
Praktikertjänst, the largest private healthcare provider in Sweden, deployed cloud-based acute care tool, CollaboDoc, to increase efficiencies and collaboration between medical staff and patients. Praktikertjänst uses data to predict when illnesses might increase and prepare supplies, equipment, and staffing accordingly.

Entrepreneurship and Innovation

Kansas City, has teamed with Cisco Systems to create The Living Lab, which encourages the development of new applications, entrepreneurship and innovation. The Living Lab spurs innovation around the Internet of Things (IoT) and other increasingly important digital technologies.

Education and Vocational Training

he city of Leonteios Patision, Greece, in partnership with EPAFOS, has developed an online platform called edu4Schools. It provides schools, students, teachers, parents, and administrators with online access via a web browser or mobile device to information services important to the entire school community.



Voting and Democratic Processes

Democracy Live's LiveBallot product delivers electronic ballots securely to voters with disabilities, remote voters, and others. It is the most deployed web based ballot delivery platform in the U.S. and has been deployed in hundreds of elections. It is 100% ADA compliant.

Financial Services

Singapore's TransitLink ABT Portal, deployed in partnership with Mastercard, supports contactless fare payments using Account-Based Ticketing (ABT) for public transport. This opens up opportunities for persons with disabilities to more easily access public busses and trains.

Roadmap for Alpha Testing

For the Alpha version of the database, we gathered a preliminary set of more than 350 Smart City solutions for digital inclusion. Moving forward, our goal is to source 1000 solutions by the time of the Beta launch in late 2017. The specific steps for moving forward from the Alpha to Beta version are:

1. Continue to add more Smart City solutions that could impact digital inclusion.

2. Evaluate all solutions in the database according to the three dimensions:

- The disability or impairment addressed by the solution
- The impact area associated with the solution
- The device platform or operating system

3. Submit the database for testing by city managers, academics from leading universities and research institutes, and leaders from both civil society and industry. This will help to validate the evaluation of each solution according to the three dimensions of the database and provide additional input for continuous improvement of the database.

The three main steps in this roadmap to take the database from Alpha to Beta version will engage both the global north and global south to gather the most effective input possible. Accomplishing this roadmap to take the database from Alpha to Beta version is contingent on funding and partnerships.

Call to Action

At the G3ict m-Enabling Summit on June 13th, 2017, we will announce a call for additional solutions. We will make available a mechanism for the collection of solutions to be added to the database. Future calls to action will be made related to expanding the validation process for the solutions and to ensure that all solutions listed on the database are up-to-date, relevant, and beneficial for digital inclusion.

We want to invite stakeholders and partners to contribute to the Database of Solutions for Digital Inclusion and help gather additional input from users and experts around the world.

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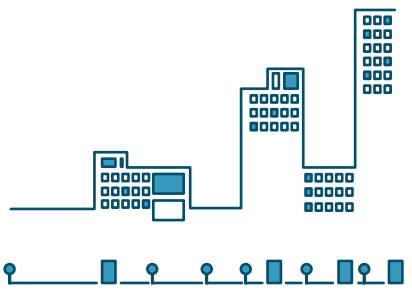
Smart Cities for All Project Overview

In June of 2016, G3ict and World Enabled launched an international initiative to define the current state of ICT accessibility and digital inclusion in Smart Cities worldwide for persons with disabilities and older persons. The project included a survey of more than 250 international experts from city governments, industry, civil society and academia, and a series of roundtable discussions in leading Smart Cities worldwide. This initiative confirmed that most of today's Smart Cities are not truly accessible, resulting in a growing digital divide for persons with disabilities and older persons.

Global experts currently see no clear link between ICT accessibility standards and Smart Cities programs worldwide. Just 18% of global experts surveyed know of Smart Cities that use ICT accessibility standards. Moving forward, experts were clear in the belief that to create truly accessible Smart Cities, accessibility needs to be a required criterion in all public procurements of ICT.



G3ict

The Global Initiative for Inclusive Information and Communication Technologies is an advocacy initiative launched in December 2006 by the United Nations Global Alliance for ICT and Development, in cooperation with the Secretariat for the Convention on the Rights of Persons with Disabilities at UN DESA. Its mission is to facilitate and support the implementation of the dispositions of the Convention on the Rights of Persons with Disabilities (CRPD) promoting digital accessibility and Assistive Technologies. More information can be found at http://g3ict.org/

World Enabled

World Enabled is a global education, communications, and strategic consulting group. We support companies and governments with the full implementation of legal mandates that promote the rights of persons with disabilities. Our work and research initiatives focus on urban planning and inclusive urban development. With our international partners, we build inclusive societies where people with disabilities fully develop their talents and reach their full potential. More information can found at http://worldenabled.org/

Team Bios

This initiative is being headed by James Thurston, Vice President at G3ict and Dr. Victor Pineda, President at World Enabled. Both James and Victor are leading global experts and are committed to building a broad coalition to ensure that persons with disabilities enjoy the amazing advances of Smart Cities on an equal basis with others.

Dr. Victor Santiago Pineda is the President of World Enabled. He also serves as president the Global Alliance on Accessible Technologies and Environments (GAATES). Dr. Pineda is a recognized leader in international disability rights and was appointed by US President Barak Obama to the Architectural and Transportation Barriers Compliance Board. He teaches city planning at University of California, Berkeley. Dr. Pineda has received numerous awards, including a National Science Foundation (NSF) Innovation research grant, a Fulbright-Hays Scholarship, and the AAPD Paul G. Hearne Leadership Award. Mr. Pineda received a B.A., B.S. and M.C.P. from the University of California, Berkeley and a Ph.D. from the University of California, Los Angeles.

James Thurston is an internationally recognized technology policy leader. As G3ict's Vice President for Global Strategy and Development, he leads the design and implementation of new programs to scale up G3ict's global impact. He has served as advisor to high-ranking government leaders in the US and abroad on technology policy, human rights, and digital inclusion. He has experience applying both technology and public policy to important social and economic challenges. He holds broad policy and management experience in both the private and public sectors and at the federal, state, and international levels of government. Prior to joining G3ict, Mr. Thurston was Director of International Accessibility Policy at Microsoft, where he developed and executed a worldwide strategy to expand the company's outreach on disability and technology issues. Mr. Thurston holds both a Master of Public Administration and an M.A. in East European Studies from the University of Washington, as well as a B.A. in International Affairs from the University of Maine.

Smart Cities for All Resources

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