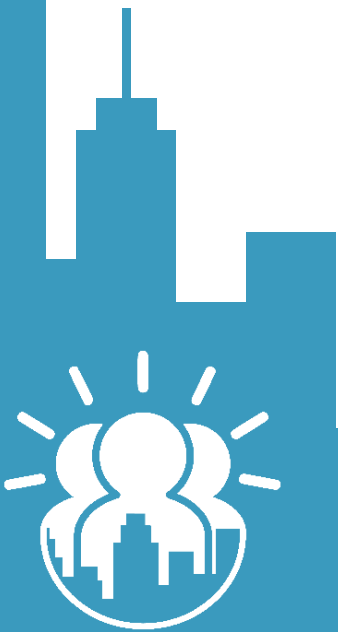


# Guide to Adopting an ICT Accessibility Procurement Policy

# Smart Cities for All



Smart Cities for All

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## 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 contributions:

**Gunela Astbrink**, Principal, GSA InfoComm

**Nicole Bohn**, Director, San Francisco Mayor's Office on Disability

**David M. Capozzi**, Executive Director, U.S. Access Board

**Arfaraz Khambatta**, Deputy Director, San Francisco Mayor's Office on Disability

**Laura Ruby**, Director of Worldwide Accessibility Policy & Standards, Microsoft Corporation

**Hajime Yamada**, Chair of the Board, Information Communication Policy Forum of Japan

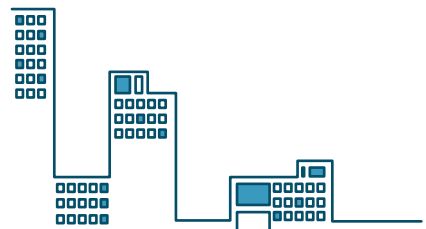
**Renata Zanetti**

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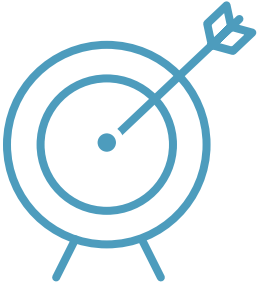
## Executive Summary

Smart Cities worldwide are uniquely positioned to use their considerable purchasing power, including of information and communications technologies (ICT), to advance the rights and digital inclusion of persons with disabilities and older persons. Public procurement processes are increasingly being recognized as a highly effective policy tool to promote the accessibility of (ICT) equipment, software, applications, and services purchased by governments or government-funded programs. Global interest in the positive effect of public procurement is largely the result of two well-known accessibility public policy activities; Section 508 of the Rehabilitation Act in the United States (governing federal government purchase, development, maintenance, and use of accessible electronic and information technology) and ETSI EN 301 549 (the European accessibility standard that includes accessibility criteria for the public procurement of ICT products and services in Europe). Experts around the world agree that requiring accessibility to form part of all public procurement of ICT is needed to create accessible Smart Cities. Smart Cities programs can take advantage of existing model policy and best practices to develop effective policies for their public procurement of accessible ICT products and services.

*The Smart Cities Council defines a Smart City as one that “uses information and communications technology (ICT) to enhance its livability, workability, and sustainability.”*



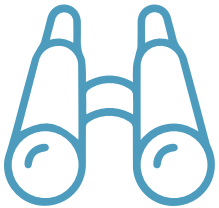
# Objectives



The objective of this guide is to help cities adopt a policy that requires that any ICT purchases be accessible to persons with disabilities and older persons. The adoption of ICT accessibility policies will also allow industry and suppliers to cities to benefit from the clear direction provided to them by cities in this area. This guide is intended to support a range of people in roles related to the procurement of technologies by cities. It will also be of interest to technology suppliers to Smart Cities, accessibility experts, Smart City program managers, policy makers, developers who design Smart City apps and solutions, academics researching Smart Cities, and disability organizations and advocates working to make Smart Cities more inclusive. This document has been designed to complement the Smart Cities for All: Guide to Implementing Priority ICT Accessibility Standards document, which introduces an inventory of the priority standards that define key ICT accessibility criteria. Each document can be used separately or in tandem to enhance understanding of how standards and policies can be implemented to improve ICT accessibility in their cities.

*According to [United Nations](#) estimates, 15% of the population worldwide or some 1 billion individuals live with one or more disabling conditions. In addition, more than 46 per cent of older persons – those aged 60 years and over—have disabilities and more than 250 million older people experience moderate to severe disability.*

# 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 in Smart Cities worldwide and the digital inclusion of persons with disabilities and older persons . The initiative included a survey of more than 250 international experts from city governments, industry, civil society, and academia, a series of roundtable discussions in global Smart Cities (Quito, Barcelona, London, San Francisco, and New York), and 1-1 interviews with Smart City program managers and technologists. This initiative has confirmed that most of today's Smart Cities are not fully accessible and the result is a growing digital divide for persons with disabilities.

60% of global experts surveyed by the Smart Cities for All project in 2016 believe that today's Smart Cities are failing persons with disabilities. The result is negative impacts across a broad range of areas including independent living, transportation, e-Government, employment, civic engagement, safety and justice, emergency response, voting and elections, and financial services. 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 around the world are clear in the belief that in order to create truly accessible Smart Cities, accessibility needs to be a required criterion in all public procurements of ICT.

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## What is accessible technology?



Accessibility, broadly, is defined by ISO TC 159 as the: “extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.”

When it comes to ICT more specifically, accessibility is generally accepted as being the quality of a mainstream technology such as a computer, mobile phone, self-service kiosk, or piece of software, to be used by the widest range of users possible, regardless of their abilities or disabilities.

Accessibility makes it easier for anyone to see, hear, and use a device and to customize their digital environment according to their own preferences, needs, and abilities. For many people, accessibility is what makes accessing Smart City programs and digital services possible.

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## What is public procurement?



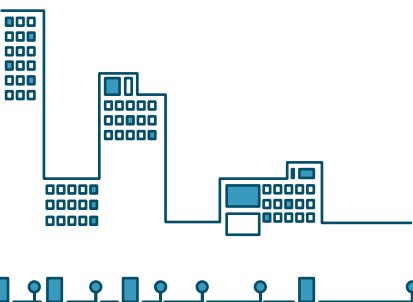
Public procurement generally concerns the purchase of goods and services from private sector contractors and vendors in a transparent and competitive bidding process. Public procurement policies set the expectations, criteria, and limits for how goods, services, and infrastructure development will be purchased.

### Public Procurement

“...refers to the process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies” (the European Commission)

“...is the process for awarding contracts for the purchase of goods and services by the public authorities” (CENELEC)

“...refers to the purchase by governments and state-owned enterprises of goods, services and works” (OECD)



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## What are policies for the public procurement of ICT accessibility?



Public procurement processes have gained increased attention as an effective policy tool to promote the accessibility of ICT equipment, software, applications, and services purchased by governments or government-funded programs. It is common practice today for governments to promote ICT privacy and security by including them as part of their procurements. ICT accessibility can be added in a similar way. Global interest in the positive effect of public procurement is largely the result two well-known accessibility public policy activities; Section 508 of the Rehabilitation Act in the United States (governing the federal government purchase, development, maintenance, and use of accessible electronic and information technology) and ETSI EN 301 549 (the European accessibility standard developed to support the European Commission's rules that add accessibility criteria to the public procurement of ICT products and services in Europe).

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## Why are cities uniquely positioned to lead on digital inclusion through their procurement policies?



Cities are increasingly where the world's population lives. The proportion of persons with disabilities and older persons living in cities is rising rapidly. By 2050, 70% of the global population will live in cities, of which at least 15% will be people with disabilities. Secondary and tertiary cities located in the global south are leading urban growth and 80% of persons with disabilities live in these developing countries. Urbanization and aging trends are also closely linked. Globally, between 2000 and 2015, the number of people aged 60 years or over increased by 68 per cent in urban areas, compared to just a 25 per cent increase in rural areas. These demographic trends make cities the center of global disability rights. In fact, more than 84% of all global cities are in countries which are already parties to the United Nations Convention on the Rights of Persons with Disabilities (CRPD). Every one of the Rockefeller Foundation 100 Resilient Cities are in countries that have ratified and/or signed the UN CRPD.

Cities also are global technology leaders. In 2015, 89% of the world's 4 billion urban residents had 3G mobile broadband coverage while only 29% of the global rural population of 3.4 billion people had 3G mobile broadband coverage. Cities are the world's economic engine, generating 80% percent of global GDP. Just 20 major cities host one-third of large companies globally and generate 16% of global GDP. The firms clustered in these top business hubs generate more than 40 percent of the combined revenue of all large companies worldwide.

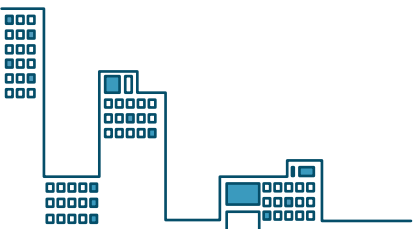
Worldwide demographic trends and their global leadership on metrics related to human rights, technology, and economic output provide cities with the opportunity to leverage their position of importance as centers of global disability rights. Cities can utilize the tools and checklists in this guide to drive increased digital inclusion through ICT procurement policies.

# 2

## The Model ICT Public Procurement Policy

Smart Cities programs worldwide can take advantage of an existing model procurement policy developed by leading organizations and global experts. The ITU and G3ict Model ICT Accessibility Policy Report is a practical guide for policy makers at all levels of government. Module 6 specifically sets out an ICT accessibility public procurement policy framework. The model policy was designed for national and other administrative levels and is highly relevant for cities and local authorities. Cities can adopt and integrate the policy language into the development of a city-level ICT accessibility procurement policy.

However, for cities using the model procurement policy, it will be important to recognize that in some important ways the nature of their ICT procurement process can be different to those adopted by national governments. For example, at the city level of government, ICT and technology purchasing are often not run as separate procurement activities. Therefore, when a city is purchasing infrastructure that includes a technology component, it may often bundle that into the overall tender or approach to market. These are often complex procurements where ICT is an embedded subset of much larger multi-year, multi-billion dollar contracts; often under complex purchasing structures where the ICT provider is a subcontractor to the respondent and where the city government may actually delegate responsibility for solution selection.





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## What is the model policy?



It aligns with global best practices and provides two levels of guidance:

- High-level policy guidance to regulators and policy makers on developing national, regional or organizational level procurement policies that incorporate accessibility in a meaningful, measurable and practical way.
- Practical advice to procurement officials and project managers on how to immediately begin to incorporate accessibility into their procurement exercises.

It explains the need for public procurement agencies at all levels to mandate accessibility to

- promote employment of people with disabilities and;
- create a market for ICT accessible products and services.

It provides sample language for a policy to consider across the main stages of procurement (including in calls for tender, assessment, selection processes, evaluation and review).

It references a product accessibility template and a set of functional performance statements, which can be used to assess a range of ICT accessibility features (based on existing accessibility standards of the United States Section 508 or the European ETSI EN 301 549).

It can be used to:

- Add accessibility into existing procurement policies
- Develop stand-alone ICT procurement policies at different levels of government, including municipal and regional, to complement existing policies
- Develop or update an ICT accessibility procurement policy at an organizational level.

## The main parts of the model policy include

- Definitions of key principles, concepts and terms (p.95 – 96)
- Purpose and overview of benefits of an ICT accessibility public procurement policy (p.96- 98)
- Objectives and principles (p.98 – 99)
- Roles and responsibilities (p. 100)
- Training, capacity development and awareness raising (p.101 – 102)
- Description of the policy's main aims (p.101)
- Rationale for accessibility in preparatory studies (p. 102 – 103).
- Critical stages and activities of the procurement process – requesting information (p.103)
- Using existing standards to create the accessibility requirements (p.104)
- Scope of the policy for ICT procurement (p. 104 – 105)
- Assessing suppliers' capabilities to meet accessibility standards (p.105 – 106)
- Recommendations for contract clauses and contract management (p. 107)
- Monitoring, exemptions to, and review of the policy.

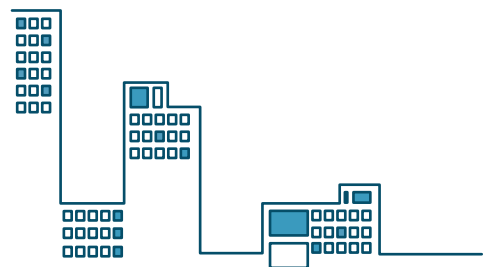
# 3

## Seven Steps To Adopt An ICT Accessibility Procurement Policy

Smart Cities with a commitment to the digital inclusion of persons with disabilities and older persons can take the following seven steps to adopt an ICT accessibility procurement policy.

It is expected that in any city the people playing a role related to the procurement of technologies will vary. Therefore the following seven steps may be led by people in different roles, including procurement director, IT manager, CIO, or disability commissioner:

- Step 1:** Organize and raise awareness among leaders
- Step 2:** Review existing ICT and procurement policies
- Step 3:** Adopt an international ICT accessibility standard and implement at a local level
- Step 4:** Build public awareness and support for adopting an ICT accessibility procurement policy
- Step 5:** Adopt the model policy to integrate into city-level procurement guidelines
- Step 6:** Enable implementation across city agencies
- Step 7:** Review and monitor implementation of the new procurement policy



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## Step 1: Organize and raise awareness among leaders



- Create a small team of city leaders and influentials to socialize the need for and benefits of adopting an ICT accessibility procurement policy (e.g. Chief Information Officer, Disability Commissioner, lead procurement official, etc.)
  - Include industry and people with disabilities in the consultation process and in the leadership team.
  - Be sure to get the perspective of those procurement officials on the ground who will be developing tenders, performing conformance analyses and product accessibility evaluations, etc. These officials will be critical to successful procurement policy design and implementation.
- Create shared understanding and common language among small teams of city leaders by organizing training and seminars on ICT accessibility procurement policy, including the rationale to address the digital divide.
  - Use ongoing training and discussions with disability organizations and industry to explore some of the key ICT accessibility options that are available on the market. Include market providers.
- Explore a range of options for adopting procurement policy and plan steps to move forward.

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## Step 2: Review existing ICT and procurement policies



- Check if your city's existing procurement rules reference accessibility or inclusion and whether key definitions are consistent with best practice.
  - See the definitions referenced in the Model Policy (Section 1).
  - Determine if your city's procurement rules and regulations have a regular review and revision cycle as an opportunity to insert accessibility and align it to the model policy as best practice.
- Identify any existing national policies or commitments that might already require inclusive procurement policies.
  - More than 170 countries worldwide have ratified the UNCRPD, which promotes ICT accessibility procurement policies. To see if your country is a party to this treaty, go to <http://bit.ly/2kEM1C7>

- Additional national ICT accessibility policies could include, for example, policies for inclusive education, policies to require accessibility in the telecommunications sector, policies requiring accessible websites, policies requiring accessibility in the financial services sector, etc.
- The national body in charge of technology and/or disability can provide you with existing disability-related national policies, which can then be used to advocate for implementing an ICT accessibility procurement policy. Depending on the country, these organizations can be in either the government or civil society sectors.

Check whether your country's national government procurement policies reference accessibility.

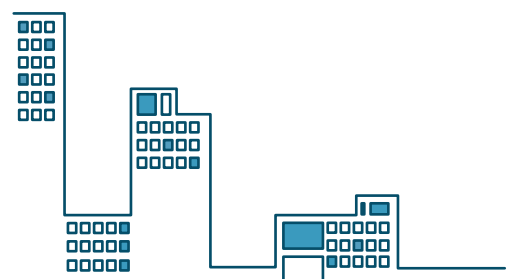
- In 2014, the European Union revised its Procurement Directive (2014/24/EU) and included stronger requirements for accessibility in procurements by all public bodies in Europe.
- Section 508 of the Rehabilitation Act requires accessibility as part of federal government purchases of ICT products and services. The United States Access Board has released a final rule to update these requirements.
- The EU and 18 other countries have links to national procurement laws and policies through the World Trade Organization gateway at <https://e-gpa.wto.org/en/Agreement/Latest>

Check if your national standards body has adopted an ICT accessibility standard like ETSI EN 301 549, Section 508, or WCAG 2.0.

- Both G3ict and ETSI can be helpful in creating a roadmap for adopting the ETSI EN 301 549 standard.
- To find your national standards body, go to [http://www.iso.org/iso/home/about/iso\\_members.htm](http://www.iso.org/iso/home/about/iso_members.htm)

Check with other nearby cities to see if ICT accessibility procurement policies have been adopted.

- Most of the Rockefeller 100 resilient cities are from countries that have ratified the CRPD and will include Smart Cities that may be adopting ICT accessibility procurement policies.



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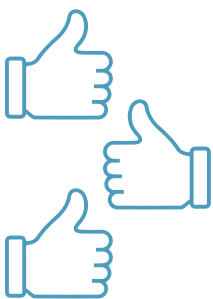
### Step 3: Adopt an international ICT accessibility standard and implement at a local level



- Review the Smart Cities for All: Guide to Implementing Priority ICT Accessibility Standards tool, which lists the three priority ICT accessibility standards
- Choose an international standard to reference directly.
  - The Model Policy addresses several reasons that a global ICT accessibility standard should be referenced in a procurement policy. The Model Policy points to the following standards which are the same as the three priority standards in the Smart Cities for All: Guide to Implementing Priority ICT Accessibility Standards tool:
    - EN 301 549
    - Section 508 of Rehabilitation Act (United States) technical requirements
    - W3C WCAG 2.0 /ISO/IEC 40500 (2013) (See Section 9)

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### Step 4: Build public awareness and support for adopting an ICT accessibility procurement policy



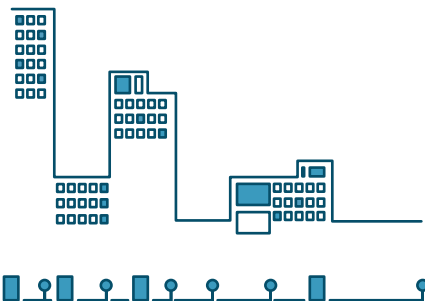
- Run specific training and capacity building exercises on disability and ICT accessibility for a broader set of government managers and IT professionals. Consider awareness events for the public.
  - A clearly designated training and capacity building approach can help to raise awareness about the number of people with disability and the importance of ICT accessibility to their inclusion.
  - Include persons with disabilities in both planning and running the training sessions. This is consistent with the core principles of the UN CRPD. A Guide to Planning Accessible Meetings is a useful reference document for this purpose.
  - Section 5.2 of the Model Policy suggests specific learning outcomes for training such as “what is accessibility”, “how persons with disabilities can use ICT”, “the case for ICT accessibility: social and business”, “how to specify and evaluate accessibility in a procurement process” etc.)
- Create stakeholder meetings with industry, including businesses that are registered for procurement platforms.
  - Run meetings with industry and other stakeholders to explain the business and human rights rationales for adopting ICT accessibility procurement policies (see Section 7 of the guide which explains the rationale and business needs).
  - Point to how leading companies are also adopting procurement policies to manage their own supply chains and vendor relations.
  - Refer to existing mandates at a national or regional level such as laws on persons with disabilities, anti-discrimination laws, or access to information laws.

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## Step 5: Adopt the model policy to integrate into city-level procurement guidelines



- Develop a timeline to draft, adopt, implement, and review the new policy.
  - The model policy, while designed for a national government, can be modified to apply more specifically in a city context.
  - The voices of people with disabilities can be central to this process.
- Review the key sections of the model ICT public procurement policy and align definitions.
- Create objectives of a city-level policy and agree to broad principles.
  - Feature the six principles that underpin the model policy: non-discrimination, inclusion, accessibility, transparency, affordability, and value for money (See Model Policy Section 3.2)
- Consider how roles and responsibilities would be allocated for developing and implementing a city-level ICT accessibility procurement policy.
  - See Section 4 of the Model Policy and map key roles for staff, councils, and committees in an ICT accessibility public procurement policy.
- Review and consider the functional performance statements based on global standards.
  - A critical part of the procurement policy will be the technical standards used (See Section 6 and the set of Functional Performance Statements in Annex A of the Model Policy). The statements can be referred to directly [e.g. usage without vision'(2.1) 'with limited vision' (2.2), 'without perception of color' (2.3)] as they aim to harmonize the statements set out in Section 508 and ETSI EN 301 549. See also the Smart Cities for All: Guide to Implementing Priority ICT Accessibility Standards tool.





- Review contract templates and specify accessibility in contracts.
  - Review and adapt existing contract templates with procurement and legal officials to see how accessibility requirements can be inserted as a standard, referencing global standards or the city's ICT accessibility procurement policy as it develops (See Section 13).
- Review approaches for collecting and assessing information from prospective vendors, including the ability to assess existing conformance:
  - at the product level – preferably within the context of use
  - at the solution level – i.e. how accessibility standards will be supported when all the component parts are developed and configured to work together
  - at the implementation level: i.e. how accessibility standards will be supported when the solution is integrated into the existing “as built” environment
- Map your existing procurement process to the five procurement stages set out in the Model Policy. Identify gaps and areas to align, recognizing that in some important ways such as in embedded ICT procurements, the process at the city level can be different than at the national level of government.
- Consider developing specific response timelines for the range of activities across the five stages of the procurement process, e.g. time to create an approval, time to process exemptions, etc.

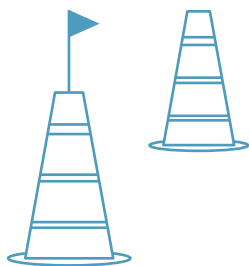


## The Five Procurement Stages

- 1. Preparatory study** – The procuring authority investigates the ability of the market (vendors) to provide the product or service required. Establishes organizational and user needs for the ICT solution to be procured.
- 2. Writing the Call for Tender** - The procuring authority writes and sends out to potential vendors the precise details of the product or service required and terms of the procurement exercise. During this stage, the procuring authority will select and request evidence to show there is conformity with the accessibility criteria.
- 3. Evaluating tenders** - The procuring authority evaluates each vendor response per the criteria set out in the call for tender. Evaluation could include allowing for compliance self-declarations, self-declarations with supporting evidence, self-declarations with results from third party assessments certificates, etc. For example, in the United States, there are Voluntary Product Accessibility Templates (VPATs) where vendors indicate that they have met the accessibility requirements (see Section 8).
- 4. Evaluating deliverables** - The procuring authority must satisfy itself that the deliverables meet the criteria set out in the tender. This could involve, for example, user-testing by people with disabilities.
- 5. Managing contracts** – Define how accessibility is adopted in contract management This could include a process for handling exceptions and for soliciting feedback from both vendors and users. This is particularly relevant for procurement of ICT services.

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## Step 6: Enable implementation across city agencies



- Assess current accessibility training offerings. Identify and prioritize missing training offerings.
- Develop an Accessibility Training Plan to define who should receive training. Identify when and how you will make new training available.
- Create and deliver training, capacity building and awareness raising of this policy, for use by the public and public sector staff. Develop / obtain / provide accessibility training resources to address core needs. Utilize the training resources developed and used by other cities and governments to fill gaps where possible. Develop and publish a training calendar and communicate training offerings to agency management and employees.
- Pursue “train the trainer” options to increase scalability where instructor led training is required.
- Track employees who take training.
- Request employee feedback on training to gauge effectiveness.

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## Step 7: Review and monitor implementation of the new procurement policy



- Create a process for regular (minimum of every 2 years) monitoring of the policy
  - Budget for monitoring and review of the implementation and for changes required to the policy. Involve persons with disabilities in the monitoring and review, e.g. end-users, city employees, and citizens.
- Share success stories, including with other smart cities and in the CRPD monitoring processes.
  - Sharing innovations and advancement with the CRPD committee will support your country reporting and be a way for other cities to learn from your experience. Consider creating an award for innovation in ICT accessibility to recognize how accessible procurement investments can lead to greater innovation.

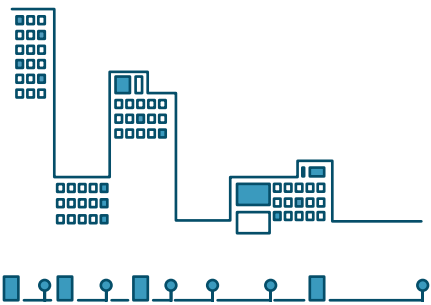
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## Conclusion

Procurement is one of the most important and impactful policy tools available to governments. Procurement policies have a large influence on many areas, including the behaviors of markets, individual companies, and the lives of citizens. This is particularly true for persons with disabilities and older persons, who rely on policy makers to include them in the decisions made regarding the types of urban environments they wish to live in and how they can access and utilize them.

As governments are among the largest purchasers of ICTs, procurement is particularly important in ensuring ICT accessibility is incorporated into Smart City programs and solutions.

National and international policies already exist that can be directly adopted by cities, removing the need to go through lengthy development processes to generate entirely new ones. Instead, existing national and international policies can be tailored to effectively suit individual cities with the 7 step checklist provided in this guide. By implementing the steps outlined in the checklist, Smart City leaders can raise awareness within their staff and the general public of the importance of ICT accessibility and ensure policies are put in place to support digital inclusion for all.





## 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 be 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

Visit [www.smartcities4all.org](http://www.smartcities4all.org)  
and download additional tools.

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