Communicating the Case for a Stronger Commitment to Digital Inclusion in Cities

Smart Cities for All

Smart Cities **for All**

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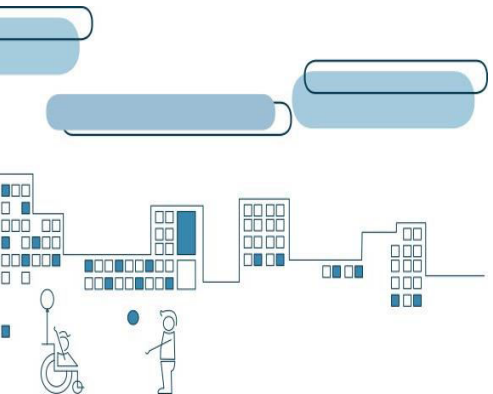


Objective

One of the biggest challenges to creating more inclusive Smart Cities is raising awareness of disability and ICT accessibility. This tool is designed to help effectively communicate the advantages of incorporating ICT accessibility into a city's digital services.

This tool provides the business, human rights, and technical arguments for a stronger commitment to the digital inclusion of persons with disabilities. It can be used to help communicate to a variety of stakeholders the idea that a Smart City must also be an accessible city.

The tool forms part of the Smart Cities For All toolkit and can be used in conjunction with the other tools in the toolkit.

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. It also included a series of roundtable discussions in leading Smart Cities worldwide.

The Smart Cities for All initiative has confirmed that most of today's Smart Cities do not have a strong focus on ICT accessibility, 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 are clear in the belief that to create fully inclusive Smart Cities, accessibility needs to be a required criterion in public procurements of ICT.

How to Use This Tool

This tool contains four parts that explain in detail why ICT accessibility is crucial to a Smart City's digital services.

The tool has been designed to assist in tailoring the case for accessibility, making it easier to present to different target audiences.

Use the entire tool or only those arguments that are most useful to make a compelling case for ICT accessibility to key stakeholders.

1. Read the following arguments with your target audience in mind
2. Select the most compelling arguments that will resonate with your audience
3. Build your own customized presentation with the selected slides

How to Communicate the Case for ICT Accessibility

The following slides provide a step by step guide to creating an effective communications strategy

1. Set the Communications Goals and Objectives

2. Develop Key Messages That Effectively Speak to Your Audience

3. Identify Priority Communications Channels

4

Create a Communications Strategy

5

Mobilize Allies and Resources

6

Measure and Evaluate Outcomes

Communicating the Case Part 1

The Global Trends Case

Cities Are Our Future

The proportion of people living in cities and the proportion of persons with disabilities and older persons living in cities is already significant

- According to the United Nations by 2050, 70% of the global population will live in cities, of which at least 15% will be people with disabilities
- At the same time that the populations of cities is rapidly rising, the proportion of persons with disabilities and older persons living in cities is also rising faster than the rest of the population - globally, between 2000 and 2015, the number of people aged 60 years or over increased by 68% in urban areas, compared to just a 25% increase in rural areas

The Importance of Digital Technologies is Increasing

The number of digital devices in use and our reliance on them continues to grow

- 50 billion devices will be connected to the internet by 2020, up from 10 billion in 2012 and just 200 million in 2000
- Over the next ten years, 60% of people living in Smart Cities will be accessing eServices such as ePayments, eExchange, and eSharing

Smart Cities Are Booming

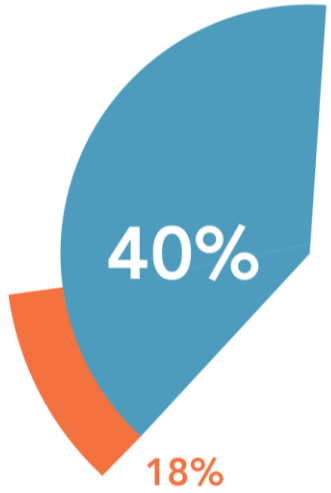
By 2025, there will be at least 88 Smart Cities worldwide, up from 21 today. This boom in Smart Cities creates enormous business and investment opportunities

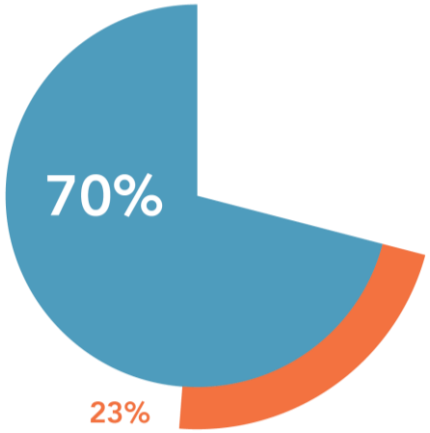
- Smart Cities are a truly global trend. In 2025, the Asia-Pacific will host 32 Smart Cities, Europe will have 31, and the Americas will be home to 25 Smart Cities
- Frost & Sullivan expects the global Smart City market will be valued at over $1.5 trillion in 2020. If compared to national GDPs in 2014, this Smart Cities market would be greater than the GDP of Spain, making it the 12th largest economy in the world
- By 2025, demand for Smart City services will grow in Latin America by 46%, Middle East and Africa by 39%, and Central and Eastern Europe by 31%

Today's Digital Infrastructure is Not Accessible

In just **40%** of CRPD countries, some (not all) **government websites are accessible**

In just **18%** of CRPD countries are the top 10 commercial and **media websites** accessible

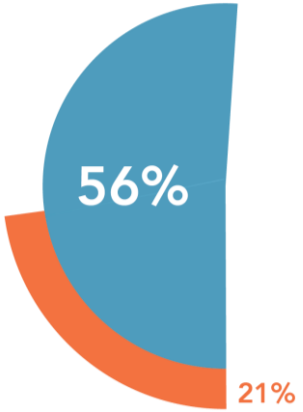




Text to Speech availability on mobile devices in:

main national language in only **70%** of countries

minority languages in just **23%** of countries



Screen Reader availability in:

main national language in only **56%** of countries

minority languages in just **21%** of countries

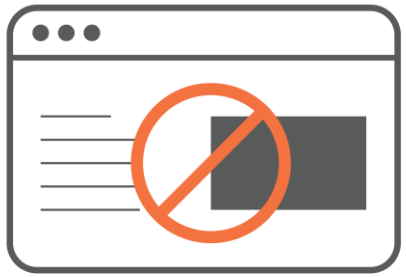
The Digital Divide is Growing

Today, persons with disabilities are largely excluded from a growing global reliance on technology

US population that never go online

8% of the **General US Population** never online

23% of **Americans with disabilities** never online



Adults with disabilities are around
20% less likely to subscribe to home broadband,
or own a computer, smartphone or tablet

Communicating the Case Part 2

The Demographic and Business Case

Persons With Disabilities Are Significant Drivers of City Economies

According to United Nations estimates, 15% of the population worldwide, or some 1 billion individuals, live with one or more disabling conditions

- Persons with disabilities make up a large part of the population of cities and together with their close friends and families, have a disposable income of over $8 trillion USD
- 10% of the US workforce has a disability and this also rises significantly for persons aged 55 to 64

Older Persons Are Also Significant Drivers of City Economies

Older persons are already a significant part of the population and economy of cities and this will increase further in the coming decades

- Today, 8.5% of people worldwide (617 million) are aged 65 and over. This is projected to jump to nearly 17% of the world's population by 2050 (1.6 billion people)
- America's 65-and-over population is projected to nearly double over the next three decades, from 48 million to 88 million by 2050
- By 2050, global life expectancy at birth is projected to increase by almost eight years, climbing from 69 years in 2015 to 76 years in 2050
- By 2050, older persons will generate 51 percent of urban consumption growth in developed countries, or $4.4 trillion, which is 19% of total global consumption growth

ICT Accessibility Supports Employment Rates in Cities

10% of the US workforce has a disability and this rises significantly for persons aged 55 to 64

- ICT accessibility increases persons with disabilities' access to employment opportunities, reduces workplace absence, empowers citizens, and unlocks the full potential of persons with disabilities as well as other citizens
- Productivity benefits from ICT accessibility extend both to city employees/civil servants and to businesses in the city’s overall economy
- 57% of ALL working age adults can benefit from accessible technologies and the services that leverage them

ICT Accessibility Benefits All Citizens

ICT accessibility features designed for the 15% of the global population with disabilities can also be used by the other 85% of the population

- **All citizens can be affected every day by situational disability where ICT accessibility and solutions could benefit them. For example:**
  - Using Text to Speech and Voice Recognition functionality to access city services online or on a mobile phone when driving or when unable to use both hands
  - Adjusting screen brightness when using devices in bright or low light
  - Using haptic response when in a quiet setting to get important city notifications such as weather emergencies or traffic alerts

Cities That Commit to ICT Accessibility Are Technology Leaders

Today's accessible technology becomes tomorrow's mainstream products and services

- Cities that focus on ICT accessibility help define the next generation of technologies such as artificial intelligence, natural user interfaces, and machine learning
- Many of today's mainstream products had their origins in accessible technology including voice recognition software, text to speech, and predictive text software
- City ICT accessibility policies help to grow the local accessible technology ecosystem by developing IT professionals' capabilities and expertise
- Cities with an ICT accessibility focus can attract and retain the best talent

Communicating the Case Part 3

The Rights and Policy Case

Persons With Disabilities Have Worse Socio-Economic Outcomes

Persons with disabilities are worse off by nearly all socio-economic metrics including poverty, education, access to financial services, and employment

- The 2011 World Report on Disability found that across the world, people with disabilities have poorer health, lower education achievements, less economic participation and higher rates of poverty than people without disabilities
- Persons with disabilities are more likely to be unemployed and earn less even when employed. It is also harder for people with disabilities to benefit from development and escape from poverty due to discrimination in employment, limited access to transport, and lack of access to resources to promote self-employment and livelihood activities
- Persons with disabilities in most countries and cities remain largely outside the economic mainstream, facing numerous financial hurdles and roadblocks to financial inclusion. For example, in the US almost half of households with disabilities have no credit and are twice as likely to lack credit as households with no disability

The UN CRPD Recognizes ICT Accessibility as a Basic Human Right

More than 170 countries have ratified the UN Convention on the Rights of Persons with Disabilities (CRPD)

- In the CRPD, Information and Communication Technologies (ICT), both from a digital accessibility and assistive technologies standpoint, have been defined as an integral part of Accessibility Rights, on par with accessibility to the physical environment and transportation
- In line with CRPD Article 9, cities in countries that are parties to the CRPD should take appropriate measures to ensure that persons with disabilities, on an equal basis with others, have access to information and communications technologies and systems

ICT Accessibility Can Support the Right to Participate Equally

The CRPD ensures that Persons with Disabilities have the right to participate equally, without distinction or without discrimination. The following are areas where ICT plays a key role:

- **Access to education** (Article 24) - ICT accessibility provides persons with disabilities with unprecedented levels of access to city services including education, internships and skills training
- **Attaining independent living** (Article 26) - Effective and appropriate measures should be taken to enable persons with disabilities to attain and maintain maximum independence, full physical, mental, social and vocational ability, and full inclusion and participation in all aspects of life
- **Situations of emergency preparedness and response** (Article 11) - Cities should take all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters. ICT accessibility plays a vital role in communicating emergency information to citizens

Persons With Disabilities Have the Right to Participate Equally

The CRPD ensures that Persons with Disabilities have the right to participate equally, without distinction or without discrimination. The following are areas where ICT plays a key role:

- **Work and employment** (Article 27) - Provides improved access to employment, innovation, and e-commerce opportunities
- **Personal Mobility** (Article 20) - Personal mobility must be ensured in the manner of their choice, and at affordable cost. Access should also be provided to quality mobility aids, devices, assistive technologies and entities that produce mobility aids, and assistive technologies.
- **Participation in political and public life** (Article 29) - Persons with disabilities should be enabled to effectively and fully participate in political and public life on an equal basis with others

Cities Can Be Disability Rights Leaders

Cities are uniquely positioned to leverage their position of importance as centers of global disability rights

- 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 leaders in this area
- More than 84% of all global cities are in countries that are already parties to the UN CRPD. Every one of the Rockefeller Foundation 100 Resilient Cities are in countries that have ratified and/or signed the CRPD

Communicating the Case Part 4

Technical Arguments

Commitment to ICT Accessibility Provides Real Technical Benefits

Benefits from ICT accessibility go beyond legal compliance and risk

- When web pages and online services are accessible, they receive more hits and move higher up in search engine results. Search engines make ranking decisions based on the same information that assistive technologies use to create an accessible user experience, including document structure and alternative text
- Accessible web sites and online services increase conversion rates and provide a better return on investment
- Accessible online services make software technologies more effective and responsive to a wider pool of citizens

Digital Accessibility Offers Cost Savings

Many aspects of digital accessibility can provide direct and indirect cost savings

- By decreasing the need to create multiple versions of websites, online services, and products for different devices. Accessibility enables content to be delivered across multiple devices
- By decreasing the cost of upgrading for new technologies, and improving preparation for future web technologies

Accessibility Improves Maintenance Processes and Efficiency

The time and resources required for digital infrastructure maintenance is minimized through proper accessibility planning and implementation

- This is achieved by reducing the time and effort needed to change information presentation, reducing development and redesign, and by having one accessible version of a site rather than multiple versions
- Accessible websites are also easier to translate into different languages, easier to internationalize, and easier to render on mobile devices. This leads to lower maintenance costs as well as better search engine optimization, which drives more people to websites and online services

Reduction of Server Load

Digital accessibility processes and technologies can increase download speeds and reduce the need for additional bandwidth

- This is achieved by reducing the file size of each page and reducing the need to download large image or multimedia files by including alternative text for images and transcripts for multimedia files
- It also enables users with low bandwidth connections to browse with images turned off and allows users to preview information before deciding whether or not to download it

ICT Accessibility is Not Expensive for Cities to Implement

Cost is not an argument against a commitment to accessibility

- Costs are kept low if accessibility features are included in the initial design of products or systems. Adopting accessibility strategies early enables organizations to implement them according to their own schedule
- Retrofitting sites after they have already been launched is considerably more expensive than developing accessible content during its initial implementation
- The U.S. Equal Employment Opportunity Commission reports that more than half of workplace accommodations required for persons with disabilities can be implemented for under $500

APPENDIX

Key Terms

Persons with Disabilities and Older Persons

Any person who has a physical or mental impairment that substantially limits one or more major life activities. These limitations are in part shaped by environmental barriers that hinder a person’s full participation in society on an equal basis with others. Older persons can acquire such impairments as part of the aging process.

Smart City

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

Key Terms

Assistive Technology

Assistive Technology (AT) refers to hardware or software added to, connected to, or incorporated within, a system that increases accessibility for an individual by translating input or output into a more personally-relevant form.

ICT Accessibility

ICT 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.

Acknowledgements

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Karen Tamley, Commissioner on Disability, City of Chicago

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/

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 and has advised high-ranking government leaders in the US and abroad on technology policy, human rights, and digital inclusion.

Dr. Victor Santiago Pineda is the President of World Enabled and President of the Global Alliance on Accessible Technologies and Environments (GAATES). He is a recognized leader in international disability rights and was appointed by US President Barak Obama to the Architectural and Transportation Barriers Compliance Board.

Additional Resources

Visit www.**smartcities4all**.org
and download additional tools.

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