Zero Project Report 2018

Accessibility

68 Innovative Practices, 15 Innovative Policies,
and 22 Social Indicators from 105 countries

International study on the implementation of the UN Convention on the Rights of Persons with Disabilities – “For a World without Barriers”

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The composition of geographical regions and selected economic and other groupings used in this report is based on UN Statistics (www.unstats.org), including the borders of Europe, and on the Human Development Index (hdr.undp.prg).

For more information on this report, to download versions, and for further analysis of the Zero Project, visit www.zeroproject.org

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“For a World without Barriers”

FOREWORD BY MARTIN ESSL

What exciting times for the Zero Project! Launched in 2009 by the Essl Foundation, the Zero Project has developed enormously since then. We have picked up even more steam in 2017 and 2018, but without ever wavering from our mission of removing barriers for all persons with disabilities. The Zero Project network keeps growing and now comprises more than 4,000 persons – both with and without disabilities. I would like to take this opportunity to give an overview of the many activities of the Zero Project – the core work that is done to present the annual Zero Project Report and what we have added recently, both internationally and nationally within Austria, the home base of both the Essl Foundation and Zero Project.

Zero Project Research 2017–2018 on Accessibility: 68 Innovative Practices, 15 Innovative Policies
Let me start with the beating heart of the Zero Project. For a period of more than six months the Zero Project team intensively researched some 370 Innovative Practices and Innovative Policies on Accessibility, submitted from 80 countries worldwide. From these nominations, and after engaging with more than 1,000 experts from around the world, 68 Innovative Practices and 15 Innovative Policies were selected as finalists. Over the last five years alone, we have engaged with more than 4,000 stakeholders from 180 countries and across all sectors of society.

Zero Project Report 2018
Our research does not end with this final selection, however. All the innovative solutions that have been selected are then carefully analyzed and screened, together with their initiators and representatives. Thereafter, each of their stories is written up as a Fact Sheet by our team, and these are compiled for the Zero Project Report.

This year’s Zero Project Report is our sixth thematic report. It is also the second report in our second four-year research cycle, which covers the four key themes of accessibility identified in Article 9 of the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD): Employment (2017), Accessibility (2018), Independent Living and Political Participation (forthcoming in 2019), and Education (forthcoming in 2020).

Since 2013 we have covered more than 400 Innovative Practices and Innovative Policies. Importantly, we continue to remain in touch with most of their representatives, giving us an ever-growing opportunity for a deeper analysis of patterns of solutions and various kinds of collaboration. I should like to highlight pages 42 and 129 of this year’s report, where you can find clusters of Practices and Policies that we have identified as the most promising solutions to promote accessibility. There is more to come over the next year, promoting these patterns and clusters not only of solutions but also of like-minded people.

22 **Zero Project Social Indicators for 105 Countries**
Social Indicators are at the root of the Zero Project. This year, with the great support not only of Disabled People’s International but also of other powerful networks of persons with disabilities, such as Inclusion International, the EASPD and others, see *page 26* for more details, we are publishing 22 Social Indicators, measuring the implementation of the UN CRPD in 105 countries. These Social Indicators provide civil society and all people advocating for the rights of persons with disabilities additional support in their quest for improvements in the implementation of the Convention.

Zero Project Conference 2018
The Zero Project Conference 2018 is our seventh such annual conference and the fifth to be held on the premises of the United Nations in Vienna. The UN Office of Vienna and several other UN agencies are among our most important partners (the Essl Foundation is also an officially recognized partner both of the UN Economic and Social Council and the Department of public Information), and we are proud to have contributed an artwork that reminds employees and visitors to the U.N. building every day on the importance of inclusion and accessibility.

I am also personally indebted to Georg Weilguny, composer of the Zero Project Hymn, which will be given its first performance during the Zero Project Conference 2018.

Zero Project Website & Social Media: All about Accessibility!
All Zero Project research can be found, and itself researched, on zeroproject.org, which we continually update and develop. It is supported by news about Innovative Practices, Innovative Policies, and our valued partners, which we also share via Facebook, Twitter, LinkedIn, Instagram, and our own YouTube channel.

Zero Project Impact Transfer 2018: Together with Ashoka, a Pilot Programme with Ten Extraordinary Innovators
In the summer of 2017, jointly with the team from Ashoka (who also share the premises of the Haus der Philanthropie – a new co-working space for the philanthropy-minded), we launched “Zero Project Impact Transfer.” Based on existing scaling models developed by Ashoka (Impact Transfer and Globalizer), we identified ten innovators out of the 68 Innovative Practices from this year’s research. Ashoka and its Mentor Network are now supporting those ten to create via-

Zero Project Conference 2017: The Zero Project Conference gathered more than 500 innovators, opinion leaders, and policy-makers from more than 60 countries in the conference venues of the United Nations in Vienna, focusing on inclusive employment. In February 2018, the conference is all about innovative approaches to Accessibility.

ble and self-sustaining models (and, for some, even business cases) that can be grown, scaled-up, or replicated outside the countries in which they currently work. The first pilot is to be presented as part of the Zero Project Conference 2018.

Zero Project Dialogues, Special Award, and "Die Presse" Supplement

Within Austria, it is my personal mission to support the employment of persons with disabilities – not only through small steps, but also through a paradigm shift. Such an effort cannot be undertaken alone, in fact, quite the opposite, and we are currently establishing partnerships and relationships with all stakeholders involved, most importantly the employers themselves.

We are very grateful for the support of the Austrian Ministry of Social Affairs, which co-financed the Zero Project Unternehmensdialoge ("Dialogues") in 2017, through which we reached almost 1,000 stakeholders in seven conferences, and which is also co-financing the Dialogues in 2018. This year we will organize two regional Dialogues, two Dialogues for human resources managers, and three Dialogues for business sectors, where we see huge potential for increasing disability-inclusive employment, notably in the logistics and health sectors.

Also in 2017, for the first time we published a major supplement to the Austrian daily Die Presse (August 30), consisting of 52 pages focusing on role models for inclusive employment in Austria. We also created a special award for outstanding achievements in inclusive employment as part of Die Presse's traditional "Austrian Leading Companies" award. We will continue both cooperations in 2018, and will be producing another supplement that will focus on role models in accessibility for the business sector.

I am very glad that, in January 2018, Michael Pichler joined our team. Michael is a renowned human resources expert, who will use his expertise to build strong networks with the community of key stakeholders in corporate hiring and training in Austria

Cooperation with the City of Graz

The Zero Project is at heart a research project, and it will always be. On the other hand, it is anything but research for the sake of research. We want to create real change on the ground for persons with disabilities. That is all that counts. So I am more than happy that we are developing closer collaborations with the city of Graz, currently lead by Mayor Siegfried Nagl and by Kurt Hohensinner, Member of the City Government of Graz.

Inclusive ICT Academies and TOPHOUSE

For 2018 and 2019, we were able to source funding for two collaboration projects.

First, I am delighted to announce that the Austrian Ministry of Science (now the Ministry of Education – Bundesministerium für Bildung) has approved and funded a pilot in inclusive and accessible ICT academies by using the existing mainstream vocational education and training courses of international IT companies (such as Cisco, Microsoft, or SAP), and making them inclusive for all students. The results will be presented at the Zero Project Conference in 2020 with the goal of scaling it up in other organizations and institutions.

Second, jointly with five other European organizations, we initiated the project TOPHOUSE, which is funded by the European Union's Erasmus+ Programme. In 2018 and 2019 training and advocacy tools will be produced to (i) make social housing schemes run by municipalities and governments more accessible and inclusive, and (ii) address those areas where persons with disabilities normally have little or no opportunity to be allocated affordable flats or apartments.

Finally, I close with my personal thanks to the whole Zero Project team, led by Michael Fembek. The Zero Project would not be possible without them.

Martin Essl

Founder and Chairman, Essl Foundation, January 2018

Executive Summary

About

The Zero Project: History, Research, Network, Report, and Communication Channels

Social Indicators

Main results of the annual survey: 22 questions, data from 105 countries, 9 world maps

Innovative Practices

Overview of the 68 Innovative Practices 2018, patterns and threads identified

Innovative Policies

Overview of the 15 Innovative Policies 2018, patterns and threads identified

Maps

Data from all 83 Innovative Practices and Policies on World Map and Europe Map

Life Stories

Users and beneficiaries of Innovative Practices and Policies give personal reports about improvements

About the Zero Project

The Zero Project was initiated by the Essl Foundation in 2011 with the mission to support the implementation of the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) and to work for a world without barriers.

Supporting the implementation of the UN CRPD
The Zero Project has a clear mission: Working for a world without barriers, as defined by the UN Convention on the Rights of Persons with disabilities.

The Zero Project is focusing on researching and communicating innovations on behalf of persons with disabilities everywhere seeing a clear need by virtually all stakeholders who share our deep commitment to implementing the UN CRPD. Since the project's early beginnings in 2008, and after five years of organizing the annual Zero Project Conference at United Nations Headquarters in Vienna, the project team has developed a vast global network of experts both with and without disabilities; and in cooperation with this network, the team has developed the expertise to identify, select, and communicate Innovative Practices and Innovative Policies worldwide, including among several U.N. agencies.

Based on this network and expertise, the Zero Project is currently developing other subprojects and formats that support the implementation of the UN CRPD, both internationally and specifically within Austria, the home country of the Zero Project.

Innovative Practices and Innovative Policies
The Zero Project identifies and shares innovations that improve the daily lives and legal rights of all persons with disabilities by carefully selecting annual Innovative Practices and Innovative Policies. The Zero Project Awards, presented at our annual conference, support outstanding work with global recognition.

Team and organization
The core of the Zero Project is its global research on Innovative Practices and Policies, which is conducted in an annual cycle: starting in early spring with exploring the new topic, followed by the nomination

Current activities of the Zero Project

Innovative Practices, Innovative Policies, collaborations and partnerships, website, social media, networks, and Social Indicators and trends.

15
Zero Project Innovative Policies 2018

Example of Innovative Practice 2018 from Mozambique: Young Africa – Accessible Student Homes *(page 98)*

68
Zero Project Innovative Practices 2018

Example of Innovative Practice 2018 from Italy: LVE Smart-Stick System *(page 90)*

and selection process, producing the Zero Project Report and Website, and organizing the Zero Project Conference in February.

The Zero Project research and all other activities are funded and managed by the Essl Foundation, based in Vienna, Austria. For some subprojects, such as the Zero Project Dialogues in Austria, additional funding may be acquired.

Research topic 2018: Accessibility
The term 'accessibility' refers to the design of products, devices, services, and environments for people who experience disabilities. Based on Article 9 of the UN CRPD, accessibility is specifically about four major categories: the built environment, infrastructure, ICT, and products and services.

Accessibility is strongly related to the paradigm shift from the medical model to the social model of disability that is enshrined in the UN CRPD, with disability being viewed as the result of inaccessible environments and not of inabilities or even sickness.

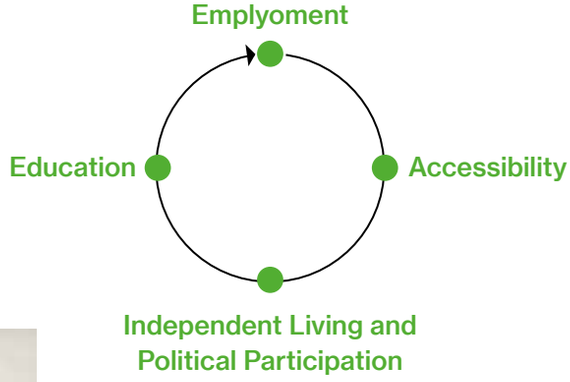
Another concept that is core to accessibility is Universal Design, which is the process of creating products – from scratch, and not adapting them only later – that can be readily used by people with the widest possible range of abilities. This year the Zero Project continued to base its research on these fundamentals, but also introduced additional aspects of accessibility in the research spectrum, such as access to justice, to health, and to humanitarian aid, as well as workplace adaption.

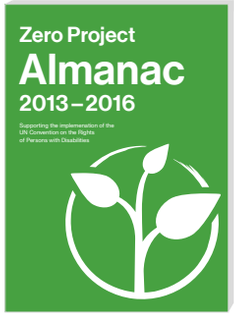
The Zero Project network: 4,000 experts
Most of the research of the Zero Project is based on contributions (nominations, evaluations, voting, selection, responding to questionnaires, etc.) from our partners and the full Zero Project network, using a transparent crowdsourcing methodology. Every year more than 1,000 experts contribute in this way, without compensation, simply because they share the same goal of realizing a world without barriers, as well as acknowledging the global impact of this joint effort.

Over the past four years, more than 4,000 experts (with and without disabilities) from all sectors of society and 180 countries have contributed their expertise. Further, the Zero Project has developed close relationships with many partner organizations, including U.N. agencies, international membership organizations, international funding agencies, academic institutions, foundations, NGOs, DPOs, professionals, activists, and others who share the common interest in identifying and scaling-up innovations that support the implementation of the UN CRPD.

The Zero Project is actively participating in several important conferences every year

The four topics of the Zero Project Research Cycle





The Zero Project Almanac, covering the first research cycle 2013 to 2016 and describing its impact, was published in 2017.

Example of Innovative Practice 2018 from Israel: The Right to be Heard *(page 88)*

400+

Number of Practices and Policies selected since 2013

A four-year research cycle

The Zero Project is based on a four-year research cycle. Starting in 2008 with preliminary research for the Essl Social Index, the Zero Project was initiated in 2012 with the first Conference that covered all Articles and aspects of the UN CRPD. In 2013 the first four-year research cycle was established (2013: Employment; 2014: Accessibility; 2015: Independent Living and Political Participation; 2016: Education and ICT), and its most important findings and its impact are summarized in the Zero Project Almanac (published in early 2017).

Also in 2017, the second research cycle was started, again consisting of Employment (2017), Accessibility (2018), Independent Living and Political Participation (2019), and Education (2020).

To date, more than 400 Innovative Practices and Policies have been selected, and the full database can be screened on www.zeroproject.org.

Measuring the UN CRPD with Social Indicators

Further, the Zero Project also develops and researches Social Indicators that measure how the UN CRPD is being implemented by comparing world regions in an annual survey. In 2018, 22 Social Indicators have been calculated, based on survey data from 105 countries, and aggregated to Social Indicators for the world regions, economic membership organizations, and more. The Social Indicators can be searched in depth at www.zeroproject.org.

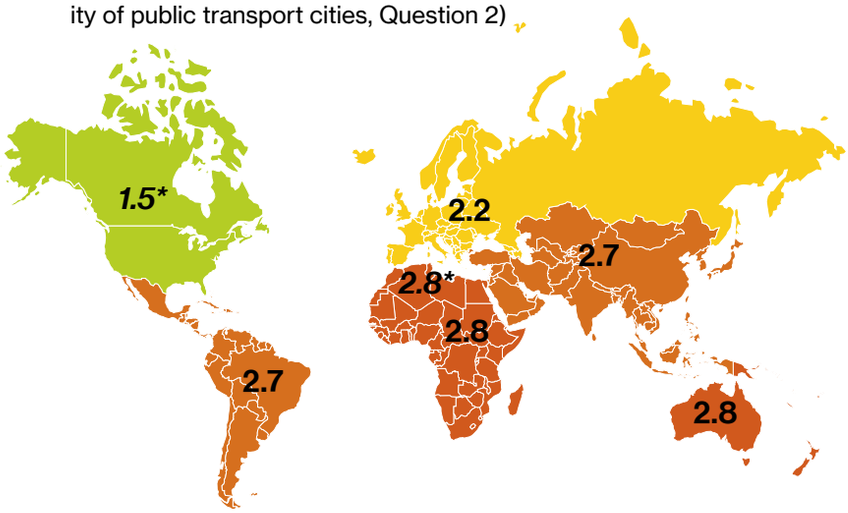
The Zero Project Report 2018

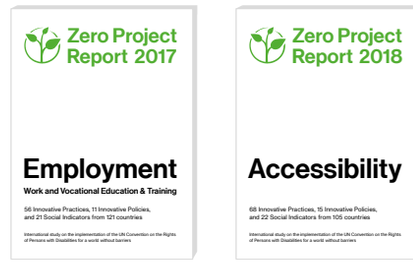
This Report is composed of three main sections, summarizing the annual research:

- Social Indicators: The Zero Project Survey 2017–2018 consisted of 22 questions covering the most important themes of the UN CRPD, but this year with an additional focus on accessibility.
- Innovative Practices: 68 Innovative Practices have been selected, and 19 common patterns and threads have been identified.

Worldmaps on Social Indicators

Mapping the regions of the world in the implementation of the UN CRPD; using the Zero Project Social Indicators (example: accessibility of public transport cities, Question 2)





Now in its second four-year research cycle, in 2018 the Zero Project has completed its research on the topics of Employment and Accessibility, to be followed by Independent Living in 2019 and Education in 2020.

By end of 2016, 100 per cent of all tram stations in Grenoble were fully accessible, as well as 80 per cent of public spaces in the city centre *(page 134)*.

4,000+

Number of experts who have contributed to the Zero Project since 2013

- Innovative Policies: 15 Innovative Policies have been selected, and two ways to create a significant impact have been identified.

The Zero Project Report is available on the Zero Project Website in an accessible pdf-format.

The Zero Project Conference and Awards

The Zero Project Conference is a unique meeting point of people who inspire and want to be inspired, of innovators and change-makers. It is held annually in the Vienna Headquarters of the United Nations, and brings together some 500 participants from more than 70 countries. At the heart of the conference are presentations of the Innovative Practices and Policies as well as by international decision-makers and opinion leaders from all sectors of society – the Zero Project network and partners.

In February 2018 representatives of more than 80 Innovative Practices and Policies will present their outstanding work at the Zero Project Conference, and receive the Zero Project Awards.

Example of Innovative Practice 2018 from the United States: VL2 Storybook Creator by Gallaudet University *(page 117)*.

HOW THE ZERO PROJECT COMMUNICATES ITS RESEARCH

- Zero Project Report
- Zero Project Website (www.zeroproject.org), searchable database
- Zero Project Conference
- Webstream of the Zero Project Conference, with sign language (ISL) and captioning
- Fact Sheets of all Innovative Practices and Policies on the website
- Presentations of all speeches of the Zero Project Conference as accessible documents and also as YouTube videos using audio and captioning
- Using Facebook, Twitter, Instagram and LinkedIn, as well as blogs on www.zeroproject.org
- Presenting at conferences of UN agencies and other network partners
- Co-producing reports and research papers with partners

In Austria

- Organizing “Dialogues” in Austrian country states
- Publishing supplements in Austrian newspapers
- Sponsoring special awards, such as for Austrian Leading Companies

“I can still enjoy my passion for live Heavy Metal.”

Life Stories of 40 persons with disabilities that use and/or benefit from Innovative Practices and Policies 2018 (example: Christina, user of “Inkulsion muss laut sein!” from Germany, *page 66*).

About the Social Indicators

ANALYSING A SURVEY OF 22 QUESTIONS ANSWERED BY 126 EXPERTS FROM 105 COUNTRIES

The Zero Project Social Indicators measure the implementation of the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD). This year 126 experts from 105 countries have completed the questionnaire, with a particular focus on accessibility. The results show some significant differences between world regions in the current implementation of the Convention.

The Zero Project's Social Indicators are based on questionnaires that are completed by experts who assess the implementation of the UN CRPD in their own country to the best of their knowledge. Conducted each year since 2010, the survey consists of questions designed to focus on concrete implementation of the most important rights granted by the Convention, as stated in its Articles (this year mostly focusing on Article 9, but also including a set of questions asked every year on all important aspects of the Convention), and to augment the work done by many authorities, statistics departments, and international organizations.

Scope and Methodology
Starting in 2017, only experts from international umbrella organizations are asked to take part in the survey. Disabled Peoples' International (DPI) is taking a leading role in that respect, whose members have been the backbone of the survey since 2013. Also participating this year were experts from European Association of Service Providers, Inclusion International, World Blind Union, World Federation of the Deaf, and World Federation of the Deafblind.

For 2018 the questionnaire consisted of 22 questions, 15 of which covered the topic of accessibility in the broadest sense. The seven other questions – including some related to accessibility – are part of the standard questionnaire and are asked every year so that trends in the Social Indicators can be researched.

Country comparison and results
During the period August to October 2017, 126 experts from 105 countries took part in the survey and answered the Zero Project questionnaire. Social Indicators are not calculated on the country level, but are aggregated for continents, regions, country development, and for economic membership groups such as the EU, ASEAN, and OECD. All answers provided by the experts are based on their experiences and perspectives. This provides a unique set of qualitative and quantitative data.

Starting on *page 25*, the Social Indicators of nine questions that were part of this year's survey are displayed as World Maps. You can find all answers, all respondents, and further analysis by other country groups in the Annex. More analysis will be published on the Zero Project website during the course of 2018, including a more in-depth analysis of qualitative data. Also, the full database as Open Source will be made available in 2018.

Breakdown of respondents by world region

- Asia and Pacific: **27**
- Europe: **20**
- Latin America, Central America, & the Caribbean: **25**
- North America: **2**
- North Africa: **4**
- Oceania: **9**
- Sub-Saharan Africa: **39**

PROMISING FINDINGS FROM THE SOCIAL INDICATORS

Australia: Accessibility Standards based on Universal Design by 2020

Australia: All government websites to reach WCAG 2.0 level in four years

Germany: Public broadcasters committed to accessibility

Singapore: New mandatory requirements for existing buildings since 2017

Singapore: SMS public alert system

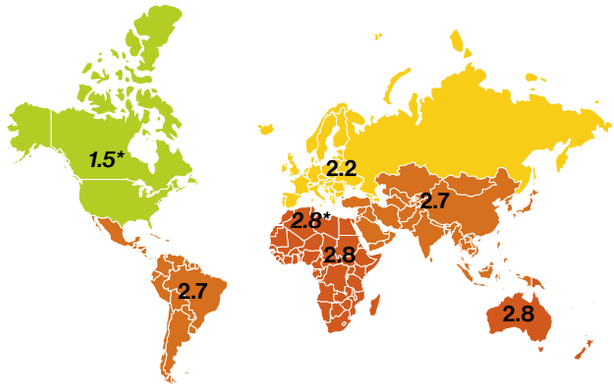
Trinidad and Tobago: New building codes based on ISO21542:2011

United States: Disability Advisory Committee for public broadcasting

Selected Social Indicators presented as World Maps

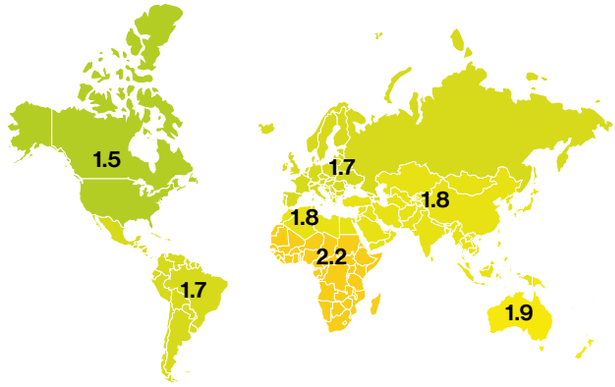
Results of the Social Indicators have been analysed by world regions, and nine of the questions are illustrated as World Maps, with Social Indicators aggregated by region (starting *page 29*). Find four of these World Maps with brief interpretations on this page.

Q2: Are all modes of urban public transport (bus, metro, tram, and train) accessible to all persons with disabilities?



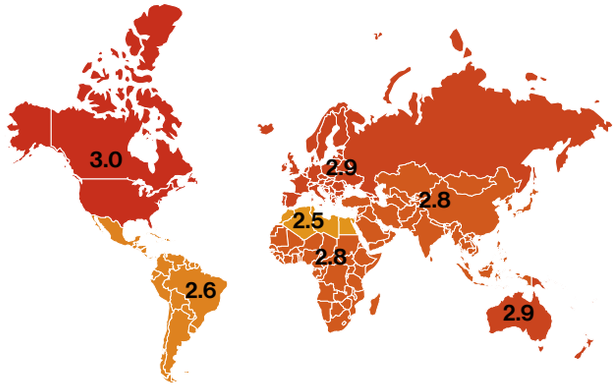
At a world average of 2.6, this Indicator is one of the lowest in the whole survey. Respondents from 78 countries (65 per cent) answer “no.” Whereas progress is reported from European countries and Northern America, inaccessibility remains the standard in low income countries.
See *page 29.*

Q3: Are all newly constructed buildings to which there is public access required by law to be accessible to all persons with disabilities?



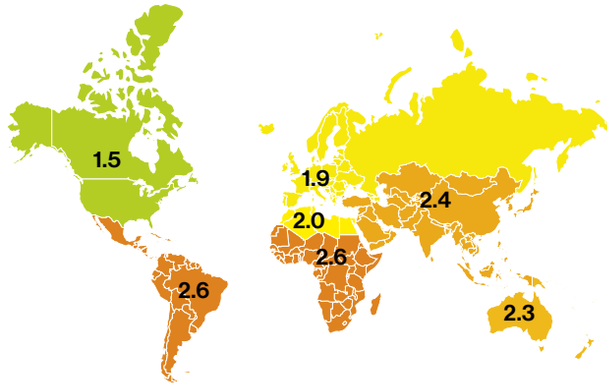
With a world average of 1.9, this indicator is among the highest in the survey. The big caveat of most of respondents worldwide – including highly developed countries – is that these regulations are more than often ingnored, and no sanctions are in place for the builders of barriers and inaccessibilty. See *page 30.*

Q14: Is official data available on public buildings, including schools and universities, that comply with the ISO 21542:2011 standards on accessibility and usability of the built environment?



No country in the survey is publishing data about the number of buidlings that are built according to international standards like ISO, and very few plan accordingly.
See *page 31.*

Q19: Is there public funding available to ensure that people with disabilities have access to the necessary assistive devices and technologies?



At worldwide 2.4, ths indicator is among the lowest in the survey, and the gap between the countries with high development (1.7) and medium/low (2.7) is especially wide. In many low income countries some support systems exist, but with poor quality and availability. See *page 34.*

About the Innovative Practices

68 INNOVATIVE PRACTICES OF THE ZERO PROJECT 2018 ON ACCESSIBILITY

For 2018 the Zero Project selected 68 Innovative Practices that positively impact the rights of persons with disabilities in their ability to access, tackling a variety of challenges and using several very different approaches.

The Zero Project has developed a unique selection process involving more than 1,000 experts with and without disabilities worldwide every year, and using its own crowd-sourcing strategy. The research process of the Zero Project is all about aggregating expert knowledge so as to identify those innovations that have the greatest potential to grow or have already proven that they can be scaled-up based on measurable figures.

Innovative Practice 2018 from Hungary: MagikMe playground equipment, see *page 68.*

As usual, the selection process in 2017–2018 was conducted in several steps. To begin, in May and June 2017 more than 4,000 people from nearly every country of the world were approached to nominate Innovative Practices, which include projects, models, services, products, business strategies, social enterprises, etc. As a result, an astounding 317 nominations for Innovative Practices from 73 countries were received. After a first internal assessment of all nominations and after declining those that were incomplete or obviously did not meet the criteria, the Zero Project team asked more than 150 partners to comment on the remaining nominations. Based on these recommendations, 140 nominations from 50 countries made it onto the shortlist.

For the voting process, a central step in the selection process, more than 300 experts participated. The votes were aggregated into ratings for each nomination, and ratings were ranked. Based on this ranking, half of the shortlisted nominations were selected, ultimately reaching the final number of 68 Innovative Practices in 2018.

In the final step, the Zero Project team researched all the remaining Practices thoroughly and composed their respective Fact Sheets, which are published in this report and on the Zero Project website. The 68 finalists of the "Innovative Practices 2018 of the Zero Project on Accessibility" were invited to present at the Zero Project Conference in Vienna, where they received the annual Zero Project Awards.

Find all 68 Innovative Practices on the World Map and Europe Map (*page 18* and *page 20*), and all the Fact Sheets from *page 44* to *page 125*. Life Stories of four selected persons who benefitted from the accessibility measures can be found on pages *48, 58, 70, 82, 94, 106, and 118.*

DEFINITION OF INNOVATIVE PRACTICES

The Innovative Practices of the Zero Project are projects, programmes, products, and services, but also social enterprises or business strategies. They employ a comprehensible method that can be transferred or copied to other countries, regions, or contexts, and have a proven and measurable impact. Most importantly, they speed up the process of implementing the UN CRPD.

Innovative Practices are selected using three criteria:

1. Innovation
2. Impact
3. Potential to grow

Innovative Practice 2018 from Israel:
OrCam MyEye enables users to read printed and digital text, recognize faces, products, money notes, street signs etc. See *page 87*.

Innovative Practice 2018 from Israel: The Jaipur Foot is an inexpensive, water-resistant, and quick to fit below-knee prosthetic, see *page 73*.

Innovative Practice 2018 from Ireland: MobilityMojo will indicate for which user groups the venue is suitable, one of several orientation systems using smartphone and maps, developed for various needs, see *page 79*.

Innovative Practice 2018 from the United States: Flashsonar, togehter with tongue click allows the ear and brain to work together to construct a 3-D image from reflected echoes of objects in any environment and blind people can move around independently, see *page 125*.

COMMON THREADS AND SOLUTIONS USED BY THE INNOVATIVE PRACTICES

The Zero Project team identified 19 distinct threads and solutions used by the people behind the Innovative Practices, although working independently from each other, often continents apart.

Of these, 16 address the four themes of accessibility identified in Article 9 of the UN CRPD: Built Environment, Infrastructure, ICT, and Products and Services.

1. Using Universal Design in the built environment
2. Creating accessible buildings and other environments in rural areas
3. Standards, manuals, and toolboxes
4. Accessible touristic site, value chain, or TripAdvisor-style platform
5. Orientation maps on smartphone apps
6. Business services and consulting
7. Orientation systems for the blind
8. Databases and other services for the blind
9. News in easy language
10. Subtitling and captioning technologies
11. Technology boosting sign language
12. IT-platforms connecting peers
13. Personal pairing of buddies and peers
14. Training students and professionals in web design and accessible ICT
15. Access to arts and museums
16. Children's playgrounds

Solutions related to other Articles of the UN CPRD

17. Access to justice
18. Access to health services in low income countries
19. Access to humanitarian aid and disaster relief measures

Overview: All 68 Innovative Practices 2018

Innovative Practices 2018 on accessibility, ranked by country

Title of nominated practice	Country	Organization	*Page*
Making schools accessible for children with physical disabilities in Afghanistan	Afghanistan	Accessibility Organization for Afghan Disable	*44*
National news agency publishing news in easy-language	Austria	APA TopEasy	*45*
Restaurant menu reading app for persons with visual impairment	Austria	Mopius – MenuSpeak	*46*
Online accessibility self-check tool for companies	Austria	ÖZIV – Barrier Check	*47*
Easy language as a key to the exhibition experience	Austria	Salzburg Museum	*50*
Bank employees provide sign language services to customers	Austria	UniCredit Bank Austria – Smart Banking in Sign Language	*51*
Mainstreaming Children with Disability in Bangladesh	Bangladesh	CSF Global – Development Centres	*52*
Itinerary and walking maps for visitors with disabilities	Belgium	Visit Flanders	*53*
Comprehensive database of accessibility features in mobile devices and Smart TVs	Belgium	Mobile & Wireless Forum – GARI	*54*
Collaboration among museums in the Balkans to develop accessibility	Bosnia and Herzegovina	The Balkan Museum Access Group	*55*
Accessibility assessments of urban areas using 114 indicators	Canada	Société Logique – Audit of Safe Active Pedestrian Potential	*56*
Planning and building accessible cities, simplified	Chile	Corporacion Ciudad Accesible (CCA)	*57*
Outdoor and indoor orientation for people who are blind	Chile	Lazarillo Tec SPA	*60*
Archive and search engine for Asian sign languages	China	The Asian SignBank	*61*
Video-sign language service throughout the country	Colombia	FENASCOL – “Centro de Relevo”	*62*
Wheelchair-accessible tours in Amazonia, the Galapagos Islands and Machu Picchu	Ecuador	South America For All	*63*
Crowd-sourced reviews on 1,000 sites across Egypt	Egypt	Helm – Enteleq app	*64*
Rating the accessibility of buildings using a well-known seal system	Germany	EUKOBA – BPASS	*65*
Buddy service for jointly attending cultural events	Germany	“Inklusion muss laut sein!”	*66*
Billing information and customer support in simple language	Germany	PIKSL Laboratories and E.ON	*67*
Accessible equipment for children´s playgrounds	Hungary	MagikMe	*68*
Easy access to news for persons with disabilities	India	BarrierBreak – Newz Hook	*69*
Mobile phone-based information sharing service about accessible opportunities in rural India	India	Enable India – Namma Vaani	*72*
Providing free adaptations and prosthetics for amputees and persons with mobility issues	India	Jaipur Foot Organization – BMVSS	*73*
A ‘buddy’ programme for travelers with and without disabilities	India	Planet Abled	*74*
Inclusive evacuation strategies following a tsunami, earthquake, or volcano eruption	Indonesia	FKM BKA in Aceh province	*75*
Child Development Monitoring for Rural Areas	Indonesia	Suryakanti Foundation Centre	*76*
An app reviewing the accessibility of locations by user’s “yes” and “no”	Ireland	Access Earth	*77*
Building a national central bank on Universal Design principles	Ireland	Central Bank of Ireland	*78*
Trip Advisor-style accessibility mapping of venues, transport and festivals	Ireland	Mobility Mojo	*79*
A sucessful business model to train service providers in accessibility	Israel	Access Israel	*80*
International online audio-book library in Arabic language	Israel	AlManarah library	*81*
Replicating fully accessible and inclusive playgrounds throughout the country	Israel	Beit Issie Shapiro – Friendship Park	*84*
Accessibility app for live shows	Israel	Gala Prompter – GalaPro App	*85*

Title of nominated practice	Country	Organization	*Page*
Free technology helpline for blind or visually impaired	Israel	Migdal Or	*86*
Vision device to understand texts and identify objects	Israel	OrCam MyEye	*87*
Access to Justice in Israel for people with complex communication difficulties	Israel	The Right to Be Heard	*88*
Mapping the accessibility of vacation properties and itineraries	Italy	Europe Without Barriers	*89*
Tactile paths giving voice commands via a smart stick and a mobile phone app	Italy	LVE smart stick system	*90*
Mobile application allowing deaf people to make phone calls without an interpreter	Italy	Pedius	*91*
Sharing the accessibility information of points of interest using apps and crowd sourcing	Japan	Mirairo Inc. – Bmaps app	*92*
Connecting wheelchair-accessible maps with GPS tracking	Japan	PADM – WheeLog!	*93*
Two-year inclusive tourism project for tourist sites	Lebanon	The Lebanese Physical Handicapped Union and ENAT	*96*
Private company joins a university in training students in web accessibility	Mexico	HearColors – The Web Accessibility Laboratories	*97*
Improving Deaf Children's Reading Through Technology	Morocco	Institute for Disabilities Research and Training – All Children Reading	*99*
Making student training centres and accommodations accessible	Mozambique	Young Africa – Accessible Student Home	*98*
Disability-inclusive communities in remote areas	Nepal	Karuna Foundation – Inspire2Care	*100*
Inclusive Post-Earthquake Reconstruction	Nepal	Action on Disability Rights and Development (ADRAD)	*101*
Making footpaths accessible for leisure and daily use	Norway	Telemark County	*102*
Supporting businesses in creating accessible workplaces and infrastructure	Pakistan	NOWPDP	*103*
Shoe-shops, barrier-free for all	Spain	APSA & Tempe – "for&from" stores	*104*
An art exhibition making art accessible in very different ways	Spain	Fundación ONCE International Contemporary Art Biennal	*105*
Making e-mail communication accessible for persons with intellectual disabilities	Spain	Fundacion Prodis – Kolumba software	*108*
Comprehensive hotel accessibility strategy	Sweden	Scandic Hotels	*109*
Large-scale access to health services in a low-income country	Togo	International Committee of the Red Cross (ICRC) MoveAbility Foundation	*110*
Audio descriptions-app making movies accessible for the blind	Turkey	Young Guru Academy – My Dream Companion	*111*
Teaming up persons with learning disabilities or autism for leisure activities	United Kingdom	Stay Up Late – Gig Buddies	*112*
A free online ICT accessibility course, accessible by the blind and deaf	USA	AMAC – ICT Accessibility MOOC Education for All	*113*
The playful way to create accessibility maps	USA	AXS Map	*114*
How to support your embassies in producing captioned videos	USA	Department of State – global Video Captioning Program	*115*
'How-To' Guides and Resource Directory for parents and caregivers	USA	Exceptional Lives, Inc.	*116*
Creating bilingual storybooks in written and sign language	USA	Gallaudet University – VL2 Storybook Creator	*117*
A community centre built on Universal Design principles	USA	Mary Free Bed YMCA	*120*
A comprehensive strategy to make Office 365 fully accessible	USA	Microsoft, Inc. – Office 365	*121*
The fully accessible art museum	USA	Museum of Modern Art (MoMA)	*122*
On-Demand Accessible Transportation in Chicago	USA	Open Doors Organization – Open Taxis	*123*
Online resource for parents of children with learning and attention issues	USA	Poses Family Foundation – Understood.org	*124*
Teaching the clicking of tongue technique to navigate	USA	World Access for the Blind – Flashsonar	*125*

About the Innovative Policies

INNOVATIVE POLICIES OF THE ZERO PROJECT 2018 ON ACCESSIBILITY

This year the Zero Project received 55 Innovative Policy nominations from around the world. Of these, the Zero Project's network of experts selected 15 policies that measurably advance the right of persons with disabilities in various forms of accessibility, such as access to public buildings, urban or rural development, ICT, transport, tourism, usage of easy language, or even such specific venues as cinemas.

The Zero Project research on Innovative Policies is based on the same methodology as the research on Innovative Practices (see *page 40*), with only some differences in the nomination form, the approach and methodology of engaging experts, and the final selection.

The Zero Project initiated the nomination process by contacting the entire Zero Project network for their suggestions, specifically targeting 150 policy experts, and encouraged them to put nominations forward. The Zero Project team used the same online nomination tool that facilitated nominations, but created a unique nomination form for each.

The Zero Project received a total of 55 nominations from 30 countries. Based on the accessibility measures named in Article 9 of the UN CRPD, 'Built Environment' was the highest represented policy topic, followed by 'Infrastructure' and 'Products and Services'.

In this first evaluation phase the Zero Project team engaged with more than 100 experts to judge the nominations, and then shortlisted 29 of the 55 Policies. After much more research, in late summer of 2017 more than 300 Zero Project experts were asked to vote on the shortlisted Innovative Policies, which resulted in the selection of 15 Innovative Policies on Accessibility 2018.

Find all 15 Innovative Policies on the World Map and Europe Map (*page 18* and *page 20*), and all the Fact Sheets from *page 130* to *page 145*. Life Stories of four selected persons who benefitted from the accessibility measures can be found on *page 137.*

COMMON THREADS AND SOLUTIONS USED BY THE INNOVATIVE POLICIES

When analysing the similarities and differences of the 15 selected policies, following two threads of successfully implemented policies appear. The other selected Policies used different approaches.

1. Action plans of city governments

Some city governments have decided to make their urban environment fully accessible, which seems to be easier than to implement similar strategies on the country level. Municipal authorities put a legal framework into place and usually foresee a timespan of approximately ten years to reach their target. This approach tends to start with public buildings and transportation and then extend to infrastructure, products and services, ICT, and arts and recreation.
Most of these Action Plans on the regional level also include private buildings and incentives to make them accessible. The cities of Oslo *(p. 138)*, Grenoble *(p. 134)*, and Dubai *(p. 145)* use this kind of approach, which clearly resemble each other. On the province level – thus, between national legislation and city administration level – the policies of the Canadian province of Ontario *(p. 131)*also fit in here.

2. International treaties and standards

The second group with many similarities consists of international treaties and standards. These agreements have been negotiated on a supranational level – in most cases over several years – and have been subsequently incorporated into national legislation.
These policies have a huge impact on people with disabilities since they define standards for everyday products, such as computers, tablets, and smart phones, but also influence other major areas, such as copyrights and tourism. The Zero Project network selection includes the following:

- The Marrakesh Treaty *(p. 130)*
- The agreement that harmonizes ICT standards between the U.S. and the EU *(p. 146)*
- International Telecommunication Union guidelines on underground orientation systems *(p. 135)*
- The EU directive on the accessibility of websites and mobile phones *(p. 133)*
- The joint efforts of Spain, the UN World Tourism Organization, Fundación ONCE, and the International Organization for Standardization to create a voluntary standard-oriented framework for accessible tourism *(p. 142).*

DEFINITION OF INNOVATIVE POLICY

The Zero Project defines Policies as various forms of public policies, initiated and implemented by public authorities on all levels – supranational (e.g., treaties), national, regional, andlocal/municipal. This includes laws and all other forms of regulations, such as tax or funding schemes, standards and other forms of legal requirements, action plans, and Supreme Court decisions.

One of the selected Innovative Policies 2018: Accessible public transport strategies for 13 major municipalities in South Africa, see *page 140.*

OVERVIEW OF ALL 15 INNOVATIVE POLICIES 2018

Name of Innovative Policy	Country	Organization	*Page*
Allowing for copyright exceptions to make books accessible for the blind	Canada	WBU and World Intellectual Property Organization – Marrakesh Treaty	*130*
Towards fully accessible organizations, both in the public and private sector	Canada/Province of Ontario	Ontario Province – Accessibility for Ontarians with Disabilities Act (AODA)	*131*
Making the cinema accessible for all throughout Colombia	Colombia	Ministry of Information and Communications Technology of Colombia – Cinema for Everyone	*132*
Minimum standards of websites and mobile applications by the public sector in all 28 EU-countries	European Union	European Parliament / European Commission	*133*
The Accessibility Strategy of Grenoble	France/City of Grenoble	Municipality of Grenoble – L'Agenda d'accessibilité programmée	*134*
ITU standard on indoor audio navigation system for the blind	Global	International Telecommunication Union	*135*
Towards a universally designed city of Oslo in 2025	Norway/City of Oslo	Comprehensive Universal Design plan by 2025	*138*
Standards for physical accessibility in Paraguay	Paraguay	Saraki Foundation & USAID	*139*
Accessible public transport strategies for 13 major municipalities	South Africa	Department of Transport	*140*
Court verdicts and summonses in easy language	Spain	Plena Inclusión, Tribunal Superior de Justicia de Asturias and the Government of the Principality of Asturias	*141*
Towards a global voluntary framework for accessible tourism	Spain	UNWTO, Fundación ONCE and ISO – ISO 21902, a global standard for Accessible Tourism	*142*
Effectively creating accessible buildings in rural, less developed areas	Sri Lanka	Uva Provincial Council, Moneragala – Age Friendly & Disabled Friendly City	*143*
Binding and effective laws for the construction of accessible school buildings	Uganda	By-Law on Accessibility in the Sub-County of Nabbale	*144*
Universal Accessibility Strategy for the whole of Dubai	United Arab Emirates	Government of the Emirate of Dubai – Universal Accessibility Strategic Plan 2017–2020	*145*
Harmonization of ICT standards across the Atlantic	United States – European Union	European Union / U.S. Access Board & European Commission	*146*

Innovative Policies and Practices around the world

For Europe see page 20

ZERO PROJECT 2018

- Innovative Practice
- Innovative Policy

Canada

Allowing for copyright exceptions to make books accessible for the blind
WBU and World Intellectual Property Organization – Marrakesh Treaty

Towards fully accessible organizations, both in the public and private sector
Ontario Province – Accessibility for Ontarians with Disabilities Act (AODA)

Accessibility assessments of urban areas using 114 indicators
Société Logique – Audit of Safe Active Pedestrian Potential

USA

The fully accessible art museum
Museum of Modern Art (MoMA)

A community centre built on Universal Design principles
Mary Free Bed YMCA

Creating bilingual storybooks in written and sign language
Gallaudet University – VL2 Storybook Creator

On-Demand Accessible Transportation in Chicago
Open Doors Organization – Open Taxis

A free online ICT accessibility course, accessible by the blind and deaf
AMAC – ICT Accessibility MOOC Education for All

How to support your embassies in producing captioned videos
Department of State – global Video Captioning Program

The playful way to create accessibility maps
AXS Map

Online resource for parents of children with learning and attention issues
Poses Family Foundation – Understood.org

A comprehensive strategy to make Office 365 fully accessible
Microsoft, Inc. – Office 365

Teaching the clicking of tongue technique to navigate
World Access for the Blind – Flashsonar

'How-To' Guides and Resource Directory for parents and caregivers
Exceptional Lives, Inc.

Mexico

Private company joins a university in training students in web accessibility
HearColors – The Web Accessibility Laboratories

Colombia

Making the cinema accessible for all throughout Colombia
Ministry of Information and Communications Technology of Colombia – Cinema for Everyone

Video-sign language service throughout the country
FENASCOL – "Centro de Relevo": (Relay Service)"

Ecuador

Wheelchair-accessible tours in Amazonia, the Galapagos Islands, and Machu Picchu
South America For All

Chile

Outdoor and indoor orientation for people who are blind
Lazarillo Tec SPA

Planning and building accessible cities, simplified
Corporacion Ciudad Accesible (CCA)

United States – European Union

Harmonization of ICT standards across the Atlantic
European Union / U.S. Access Board & European Commission

Paraguay

Standards for physical accessibility in Paraguay
Saraki Foundation & USAID

Uganda

Binding and effective laws for the construction of accessible school buildings
By-Law on Accessibility in the Sub-County of Nabbale

Morocco

Improving deaf children's reading through technology
Institute for Disabilities Research and Training – All Children Reading

Global

ITU standard on indoor audio navigation system for the blind
International Telecommunication Union

Egypt

Crowd-sourced reviews on 1,000 sites across Egypt
Helm – Enteleq app

Afghanistan

Making schools accessible for children with physical disabilities in Afghanistan
Accessibility Organization for Afghan Disable

Lebanon

Two-year inclusive tourism project for tourist sites
The Lebanese Physical Handicapped Union and ENAT

Turkey

Audio descriptions-app making movies accessible for the blind
Young Guru Academy – My Dream Companion

Nepal

Disability-inclusive communities in remote areas
Karuna Foundation – Inspire2Care

Inclusive post-earthquake reconstruction
Action on Disability Rights and Development (ADRAD)

China

Archive and search engine for Asian sign languages
The Asian SignBank

Japan

Sharing the accessibility information of points of interest using apps and crowd sourcing
Mirairo Inc. – Bmaps app

Connecting wheelchair-accessible maps with GPS tracking
PADM – WheeLog!

Pakistan

Supporting businesses in creating accessible workplaces and infrastructure
NOWPDP

Indonesia

Child development monitoring for rural areas
Suryakanti Foundation Centre

Inclusive evacuation strategies following a tsunami, earthquake, or volcano eruption
FKM BKA in Aceh province

United Arab Emirates

Universal Accessibility Strategy for the whole of Dubai
Government of the Emirate of Dubai – Universal Accessibility Strategic Plan 2017–2020

Togo

Large-scale access to health services in a low-income country
International Committee of the Red Cross (ICRC) MoveAbility Foundation

Bangladesh

Mainstreaming children with disabilities in Bangladesh
CSF Global – Development Centres

Israel

Accessibility app for live shows
Gala Prompter – GalaPro App

Free technology helpline for blind or visually impaired
Migdal Or

International online audio-book library in Arabic language
AlManarah library

Vision device to understand texts and identify objects
OrCam MyEye

Access to justice in Israel for people with complex communication difficulties
The Right to Be Heard

Replicating fully accessible and inclusive playgrounds throughout the country
Beit Issie Shapiro – Friendship Park

A sucessful business model to train service providers in accessibility
Access Israel

Sri Lanka

Effectively creating accessible buildings in rural, less developed areas
Uva Provincial Council, Moneragala – Age Friendly & Disabled Friendly City

South Africa

Accessible public transport strategies for 13 major municipalities
Department of Transport

Mozambique

Making student training centres and accommodations accessible
Young Africa – Accessible Student Home

India

Mobile phone-based information sharing service about accessible opportunities in rural India
Enable India – Namma Vaani

A 'buddy' programme for travelers with and without disabilities
Planet Abled

Providing free adaptations and prosthetics for amputees and persons with mobility issues
Jaipur Foot Organization – BMVSS

Easy access to news for persons with disabilities
BarrierBreak – Newz Hook

Innovative Policies and Practices in Europe

ZERO PROJECT 2018

- Innovative Practice
- Innovative Policy

European Union

- **Minimum standards of websites and mobile applications by the public sector in all 28 EU-countries**
  European Parliament / European Commission

Ireland

- **An app reviewing the accessibility of locations by user's "yes" and "no"**
  Access Earth
- **Trip Advisor-style accessibility mapping of venues, transport and festivals**
  Mobility Mojo
- **Building a national central bank on Universal Design principles**
  Central Bank of Ireland

United Kingdom

- **Teaming up persons with learning disabilities or autism for leisure activities**
  Stay Up Late – Gig Buddies

Germany

- **Billing information and customer support in simple language**
  PIKSL Laboratories and E.ON
- **Rating the accessibility of buildings using a well-known seal system**
  EUKOBA – BPASS
- **Buddy service for jointly attending cultural events**
  "Inklusion muss laut sein!" ("Inclusion must be loud")

France/City of Grenoble

- **The accessibility strategy of Grenoble**
  Municipality of Grenoble – L'Agenda d'accessibilité programmée

Spain

- **Shoe-shops, barrier-free for all**
  APSA & Tempe – "for&from" stores
- **An art exhibition making art accessible in very different ways**
  Fundación ONCE International Contemporary Art Biennal
- **Making e-mail communication accessible for persons with intellectual disabilities**
  Fundacion Prodis – Kolumba software
- **Court verdicts and summonses in easy language**
  Plena Inclusión, Tribunal Superior de Justicia de Asturias and the Government of the Principality of Asturias
- **Towards a global voluntary framework for accessible tourism**
  UNWTO, Fundación ONCE and ISO – ISO 21902, a global standard for Accessible Tourism

Italy

- **Tactile paths giving voice commands via a smart stick and a mobile phone app**
  LVE smart stick system
- **Mapping the accessibility of vacation properties and itineraries**
  Europe Without Barriers
- **Mobile application allowing deaf people to make phone calls without an interpreter**
  Pedius

Austria

- **Easy language as a key to the exhibition experience**
  Salzburg Museum
- **Online accessibility self-check tool for companies**
  ÖZIV – Barrier Check
- **Bank employees provide sign language services to customers**
  UniCredit Bank Austria – Smart Banking in Sign Language
- **National news agency publishing news in easy-language**
  APA TopEasy
- **Restaurant menu reading app for persons with visual impairment**
  Mopius – MenuSpeak

Belgium

- **Itinerary and walking maps for visitors with disabilities**
  Visit Flanders
- **Comprehensive database of accessibility features in mobile devices and Smart TVs**
  Mobile & Wireless Forum – GARI

Sweden

- **Comprehensive hotel accessibility strategy**
  Scandic Hotels

Norway

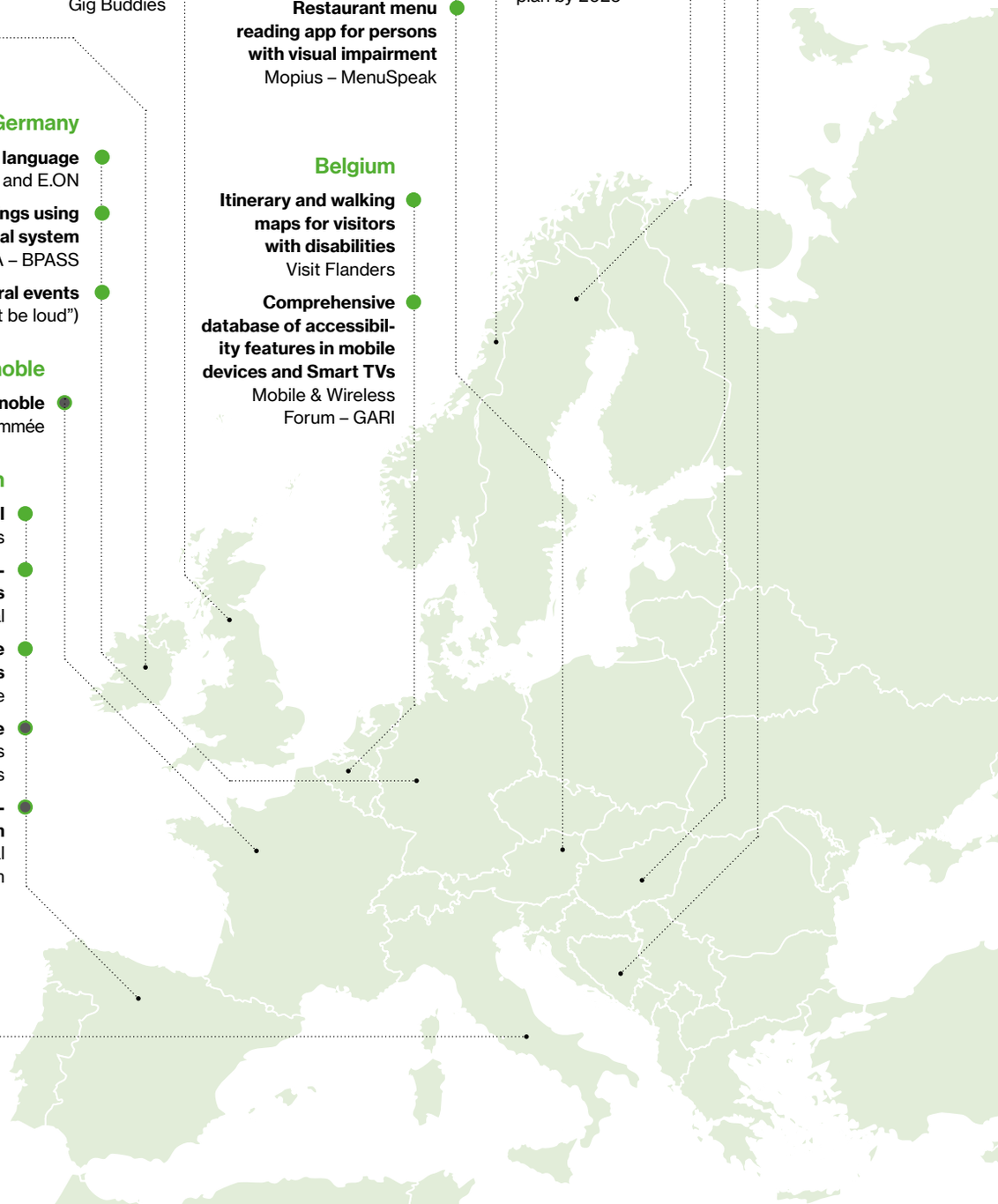
- **Making footpaths accessible for leisure and daily use**
  Telemark County
- **Towards a universally designed city of Oslo in 2025**
  Comprehensive Universal Design plan by 2025

Hungary

- **Accessible equipment for children's playgrounds**
  MagikMe

Bosnia and Herzegovina

- **Collaboration among museums in the Balkans to develop accessibility**
  The Balkan Museum Access Group



A selection of Life Stories 2018

Persons with disabilities from around the world who found employment, work, or at least meaningful vocational training, supported by the Innovative Practices and Innovative Policies 2018.

Find Life Stories on pages 48, 58, 70, 82, 94, 106, 118

“Parents report that our pupils do well, some even ranking first in their class.”

Syarifah, health worker using child development methods of the Suryakanti Foundation, Tanjungsari, Indonesia. Page 76.

“Travelling alone is possible and transforms you.”

Bhupendra, user of Planet Abled travels, Ahmadabad, India. Page 74.

“In our shop all persons with disabilities can make any purchase by themselves.”

Marta Gomis, shop assistant in “For&From” Tempe shop, Elche, Spain. Page 104.

“Mim can walk now and is trying to speak.”

Hanufa, mother of Mim (3) and user of CSF, Bangladesh. Page 52.

“I could again move in my own house, and I will apply it to other spaces in the future.”

Bernadita Santa Cruz, designer and entrepreneur, Santiago, Chile. Page 57.

“I want to be my own boss and not depend on others.”

Joaquim Jose Chichava, welder, Mozambique. Page 98.

“It means I can enter at ground level, same as my able-bodied friends.”

Matthew Chaffee, user of Mary Free Bed YMCA Grand Rapids, Michigan, United States. Page 120.

“I created an Arabic reading book in sign language.”

Fatima Maghzaz, teacher, Berchid, Morocco. Page 99.

“Using a building without even having to consider accessibility challenges.”

Tony Murray,
Senior Solution architect,
Dublin, Ireland. Page 78.

“Bmaps has enabled me to be out and about with peace of mind.”

Issei Kizu, Bmaps user, Tokyo, Japan. Page 92.

“I can still enjoy my passion for live Heavy Metal.”

Christina, user of “Inklusion muss laut sein!”, Germany. Page 66.

“I began to see that my daughter could thrive in school and in life.”

Travis Harker, father of a child with learning and attention issues, and user of Understood.org, Manchester, United States. Page 124.

“Those daily trips give meaning to my life.”

Anne-Lise Dahl, a daily walker, Drangedal, Norway. Page 102.

“I am employed at Abu Dawood Group now.”

Atif Jilany, MBA, user of NOWPDP, Karachi, Pakistan. Page 101.

“I really feel that Friendship Park was the breakthrough for inclusion for Avital.”

Ilana Grunberg, mother of Avital and user of Friendship Park, Israel. Page 84.

SECTION 1:

Key findings of the Zero Project Social Indicators

22 indicators

Twenty-two indicators have been created, aggregating survey data from 105 countries worldwide

9 worldmaps

Nine out of the 22 social indicators have been analyzed by world region

Analysing the Social Indicators

HOW THEY ARE CREATED AND HOW TO INTERPRET AND USE THEM

The Zero Project Social Indicators measure the implementation of the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD). This year 126 experts from 105 countries have completed the questionnaire, with a particular focus on accessibility. With a track record of five years and a dataset of some 1,000 responses, the Zero Project Social Indicators now open up new ways to analyse them, such as identifying trends and allowing comparisons of world regions.

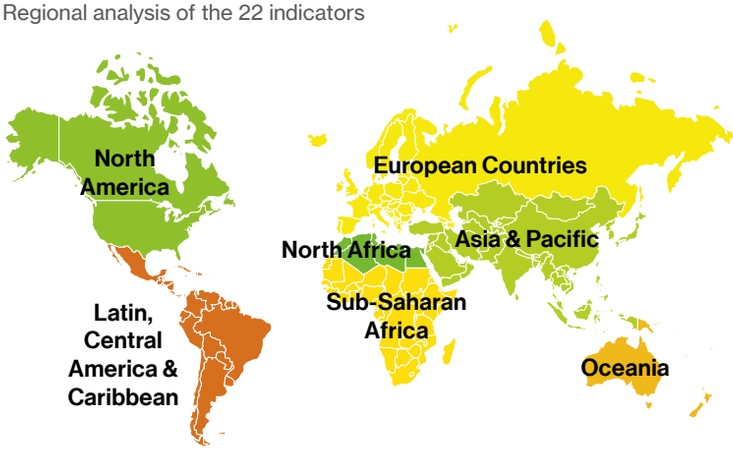
The Zero Project's Social Indicators are based on questionnaires that are completed by experts who assess the implementation of the UN CRPD in their own country to the best of their knowledge. Conducted each year since 2010, the survey consists of questions designed to focus on concrete implementation of the most important rights granted by the UN CRPD, as stated in its Articles, and to augment the work done by many authorities, statistics departments, and international organizations.

The Principles of the Social Indicators

Traffic Light System
Answers to questions asked of the expert panels are based on a traffic light system:
Green: Yes
Yellow: Yes with qualification
Red: No

Calculation of Social Indicators
The answers are aggregated into Social Indicators (with yes=1, yellow=2, and red=3). A Social Indicator of 1.0 means that all respondents have answered the question with "Yes"; a Social Indicator of 3.0 means that all respondents have answered with "No." The spectrum of 1.0 to 3.0 is also displayed in a colour spectrum from green to red in the analysis by the Zero Project team.

Regional analysis of the 22 indicators



Social Indicators are not calculated on the country level, but are aggregated for continents, regions, country development, and for economic membership groups such as the EU, ASEAN, and OECD.

Quantitative and qualitative data
Respondents are encouraged to comment on their answers, which provides for the qualitative data used in explaining the Social Indicators.

Experts from international umbrella organizations
Starting in 2017, only experts from international umbrella organizations are asked to take part in the survey. Disabled Peoples' International (DPI) is taking a leading role in that respect, whose members have been the backbone of the survey since 2013. This year DPI encouraged 87 members from 86 countries to participate in the survey, and the Zero Project is especially grateful for its continuing support. The other international membership organizations whose members took part this year (and the number of participants) are:

- European Association of Service Providers: 8
- Inclusion International: 13
- World Blind Union: 1
- World Federation of the Deaf: 11
- World Federation of the Deafblind: 5

Languages and forms
The questionnaire could be answered online in any of four languages (English, French, German, and Spanish), and is also available in accessible MS Word documents (in four languages) on the Zero Project website. A video-introduction in international sign language was also provided.

22 questions, two are also related to the SDG
In 2018 the questionnaire consisted of 22 questions, 15 of which covered the topic of accessibility in the broadest sense. The seven other questions – including some related to accessibility – are part of the standard questionnaire and are asked every year so that trends in the Social Indicators can be researched. Two of the questions related to accessibility also targeted the UN Sustainable Development Goals (SDGs):

- Goal 11 (Target 11.7): to make cities and human settlements inclusive, safe, resilient, and sustainable. Question 14 asked for the availability of data regarding the compliance of public buildings with the Standard ISO 21542:2011 – an indicator suggested by the "SDG Ad-vocacy Toolkit" that was developed by the United Nations, the International Disability and Development Consortium, and the International Disability Alliance.
- Goal 10 (Target 10.2): to reduce inequality within and among countries. Question 15 asked for the availability of percentages of government websites that meet the Standard ISO 40500:2012, again an indicator suggested by the "SDG Advocacy Toolkit."

The scope of this year's survey

105 countries
During the period August to October 2017, 126 experts from 105 countries took part in the survey and answered the Zero Project questionnaire.

Breakdown of respondents by world region
- Asia & Pacific: 27
- Europe: 20
- Latin America, Central America, and the Caribbean: 25
- North America: 2
- North Africa: 4
- Oceania: 9
- Sub-Saharan Africa: 39

(Find all answers, all respondents, and further analysis by other country groups in the Annex.)

Breakdown by other criteria
Answers are also analysed by region, country development, and economic membership organizations:
- Association of Southeast Asian Nations: 6
- Caribbean: 11
- Central and Eastern Europe, CIS (former Soviet Union countries): 6
- European Union: 14
- Middle East and North Africa: 10
- Organisation for Economic Cooperation and Development: 20

ISSUES FREQUENTLY MENTIONED

Examples of problems that have been frequently mentioned in the survey and stand in the way of better implementation of the UN CRPD regarding accessibility include:

Public transport

- Australia: Each state and territory has its own disability plan.
- Austria: New trains and buses are accessible, but there are problems with older ones. Many bus and train stops are not accessible (responsibility of municipality, not operator); orientation and information system (including ticket machines) not accessible for persons with intellectual disabilities.
- Belarus Cook Islands, Singapore, Sri Lanka: Bus drivers are not trained to help wheelchair users or are reluctant to assist.
- Brazil, Dominican Republic: Larger cities have good accessibility, but not smaller cities in the countryside.

Public buildings

- Australia, Latvia, Spain: Building codes require all new buildings to be fully accessible, but the difficulty is getting developers to follow the access requirements.
- Belarus: There is only a general requirement in the legislation, but no specific norms to ensure accessibility.
- Belgium, Canada: Only physical accessibility is required by law.
- Cook Island, Honduras, Iceland, Lebanon, Libya, Malawi, Mauritania, Mauritius, Nepal, Niger, Singapore, Trinidad and Tobago, Ukraine: There is no monitoring of measures, and no punitive measures taken if accessibility criteria are not met.
- Germany: Laws exist for public buildings, but not for private buildings such as supermarkets, cinemas, etc.
- Kenya: Government buildings and service centres are exempt from disability legislation.

Results of Social Indicators 2017
The answers provided by the experts are based on their experiences and perspectives. This provides a unique set of qualitative and quantitative data. On the other hand, the sampling, collection, and analysis of this data is limited by the size of samples and other limita-tions of data quality.

Analysis of nine individual questions
Starting on the following page, the Social Indicators of nine questions that were part of this year's survey are displayed. Results have been analysed by world regions, with further analysis by country groups in the Annex as well as a breakdown of all other themes of the UN CRPD. In addition, one of the two questions (Question 14) related to Goal 11 of the SDG is analysed here.

More analysis and open source database
All questions and all quantitative data can be found in the Annex of this report. More analysis will be published on the Zero Project website during the course of 2018, including a more in-depth analysis of qualitative data. Also, the full database as Open Source will be made available in 2018.

Encouraging new approaches on country level

A summary of encouraging examples given be the questionnaire respondents

Australia: Accessibility Standards based on Universal Design by 2020
Accessible buildings: The Building Code of Australia
The goal of the Building Code of Australia is to enable the efficient achievement of nationally consistent, minimum necessary standards of relevant safety (including structural safety and safety from fire), health, amenities, and sustainability objectives.

Australia: All government websites to reach WCAG 2.0 level in four years
Accessible websites: Australian Government's transition to WCAG 2.0.
The endorsement requires all Australian Government websites to implement WCAG 2.0 to meet the middle level of conformance (Double A) over a four-year period.

Germany: Public broadcasters committed to accessibility
Close captioning and audio description
Public broadcasters have mainly improved close captioning and audio description – from movies, television series, and live broadcasts. The ARD has committed to promoting accessibility to its community programme in its Programming Guidelines, and the ZDF has made a similar commitment. ARD has been offering all first broadcasts with subtitles since the beginning of 2013; captioning is almost complete in primetime at both ARD and ZDF.

Singapore: New mandatory requirements for existing buildings since 2017
Accessible buildings: The Building and Construction Authority
New mandatory requirements on barrier-free accessibility will be introduced for existing buildings starting in 2017.

Singapore: SMS public alert system
Accessible emergency news
The app can broadcast important alerts during major emergencies, led by the police and including the Singapore Armed Forces and Singapore Civil Defence Force. Similar alert systems are used in Europe, Australia, Japan, and South Korea.

Trinidad and Tobago: New building codes based on IS021542:2011
Standards based on ISO21542:2011
The Trinidad and Tobago Bureau of Standards is currently developing a National Building Code that is promised to comply with ISO21542:2011 Standards for All Buildings.

United States: Disability Advisory Committee for public broadcasting
Accessible broadcasting
The committee has been formed to exchange ideas, facilitate the participation of consumers with disabilities in proceedings before the Commission, and assist the Commission in educating the greater disability community on disability-related matters, including access to televised emergency information, access to video programming apparatus, and access to telecommunications services and equipment.

THE ADA – A LANDMARK IN THE ACCESSIBILITY MOVEMENT

The Americans with Disabilities Act (ADA) covers a wide variety of private businesses, as well as all the agencies of state and local gov-ernments. The ADA requires that these entities provide access to their programmes, goods, and services. Businesses or buildings that are open or offer services to the general public are called "places of public accommodation" by the ADA, and such places built after 26 January 1992 constructed by state or local governments must be fully accessible to people with disabilities.

If an individual feels that they or another person has been discriminated against by an entity covered by either Title II or Title III of the ADA, they may file a complaint with the U.S. Department of Justice, Disability Rights Section. Title II covers state and local government entities and Title III covers public accommodations and commercial facilities. Public accommodations are businesses that provide goods or services for the public. Complaints concerning discrimination in employment, often referred to as Title I complaints, should be ad-dressed by the U.S. Equal Employment Opportunity Commission and/or the agency responsible for enforcing state laws against em-ployment discrimination.

Urban public transport – availability of accessible buses, metros, trams, and trains

Question 2 refers to accessibility of public transport in urban areas. Respondees from Africa and Asia as well as Latin America confirm that there is still a long way to go, and not a lot of improvements are on the way.

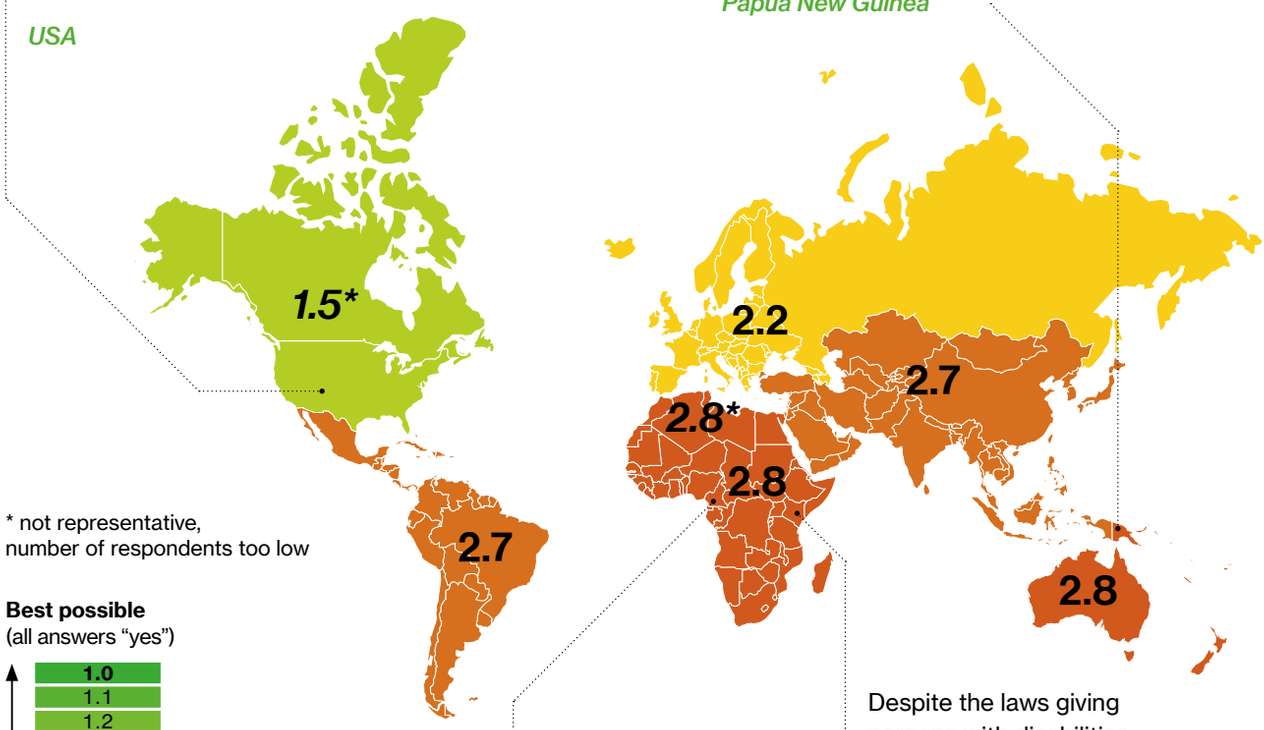
Q2: Are all modes of urban public transport (bus, metro, tram, and train) accessible to all persons with disabilities?

Access to public transportation is required by Title II of the Americans with Disabilities Act. This includes both private and public transportation.

USA

Once the Disability Legislation Act is passed this transportation barrier will be legislatively reviewed and changes made to accommodate the transportation needs of PWDs.

Papua New Guinea



* not representative, number of respondents too low

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Worst possible
(all answers "no")

The only provision made for the transport of persons with disabilities is the reduction of the cost of transport by the railway company CAMRAIL – persons with disabilities pay only 25 per cent of the transport costs.

Cameroon

Despite the laws giving persons with disabilities the right to use public transport, these laws have not been implemented.

Kenya

At a world average of 2.6, this Indicator is one of the lowest in the whole survey. Respondents from 78 countries (65 per cent) answer "no." Whereas progress is reported from European countries and Northern America, inaccessibility remains the standard in low income countries.

Accessibility of newly constructed buildings – legal requirements

Question 3 of the Zero Project Questionnaire asks if a national law requires newly constructed buildings and public spaces to be accessible. A majority of respondees worldwide confirm that such a law exists, but also make severe qualifications about what is happening on the ground.

Q3: Are all newly constructed buildings to which there is public access required by law to be accessible to all persons with disabilities?

All new buildings are made wheelchair accessible, however, they are not made accesible for all disabilities, such as people with vision loss.

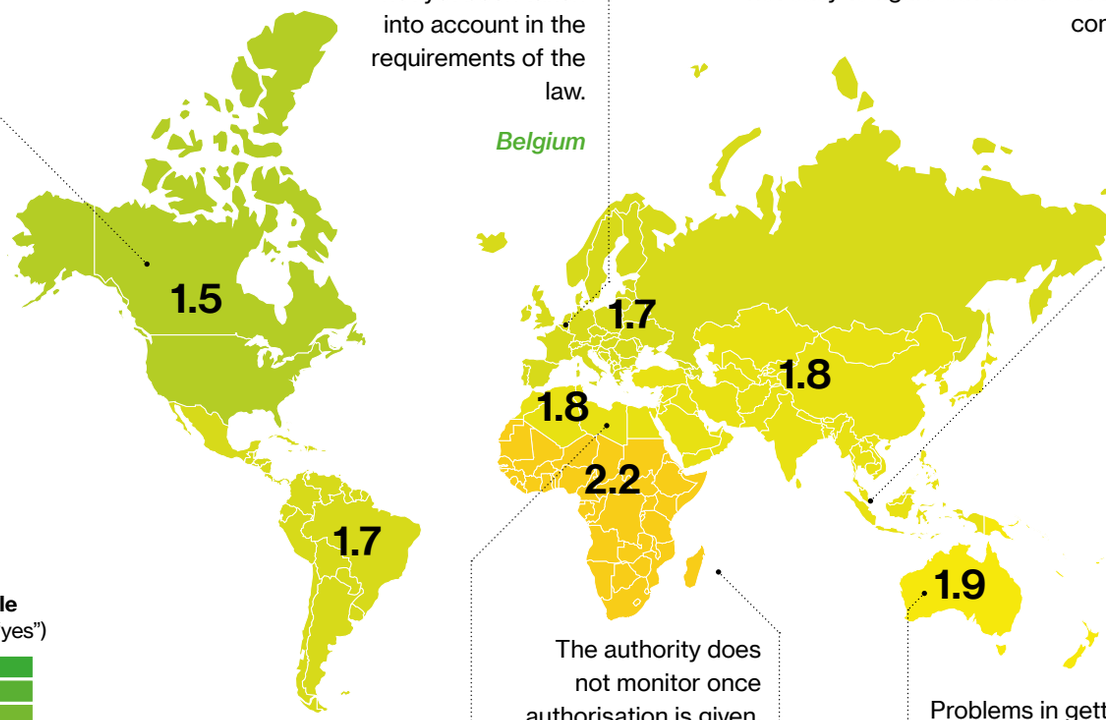
Canada

Only physical accessibility is required by law in Flanders. Sensory disability accessibility has not yet been taken into account in the requirements of the law.

Belgium

Once these buildings are built and the Building and Construction Authority checks that the premises are code compliant, there is very little follow-up unless there are specific complaints from the public. However, it is not easy to figure out who to address those complaints to.

Singapore



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Worst possible
(all answers "no")

The law requires that all newly constructed buildings to be in compliance with the means of accessibility for persons with disabilities. However, these rules do not take into consideration needs of all types of disabilities. In addition, nobody is complying with this law.

Libya

The authority does not monitor once authorisation is given.

Mauritius

Problems in getting private builders, developers, planners, and many local government councils to follow building access requirements.

Australia

With a world average of 1.9, this indicator is among the highest in the survey: The big caveat of most of respondents worldwide – including highly developed countries – is that these regulations are more than often ingnored, and no sanctions are in place for the builders of barriers and inaccessibilty.

Numbers of public buildings that are accessible – availability of data

Question 14 askes about the availability of data on the number of accessible buildings (using the most common IS0 Standard). This question is in line with the recommondation of the SDG Advocacy Toolkit created by IDDC, the UN, and IDA. Barely any country has data so far, or even has plans to get the data.

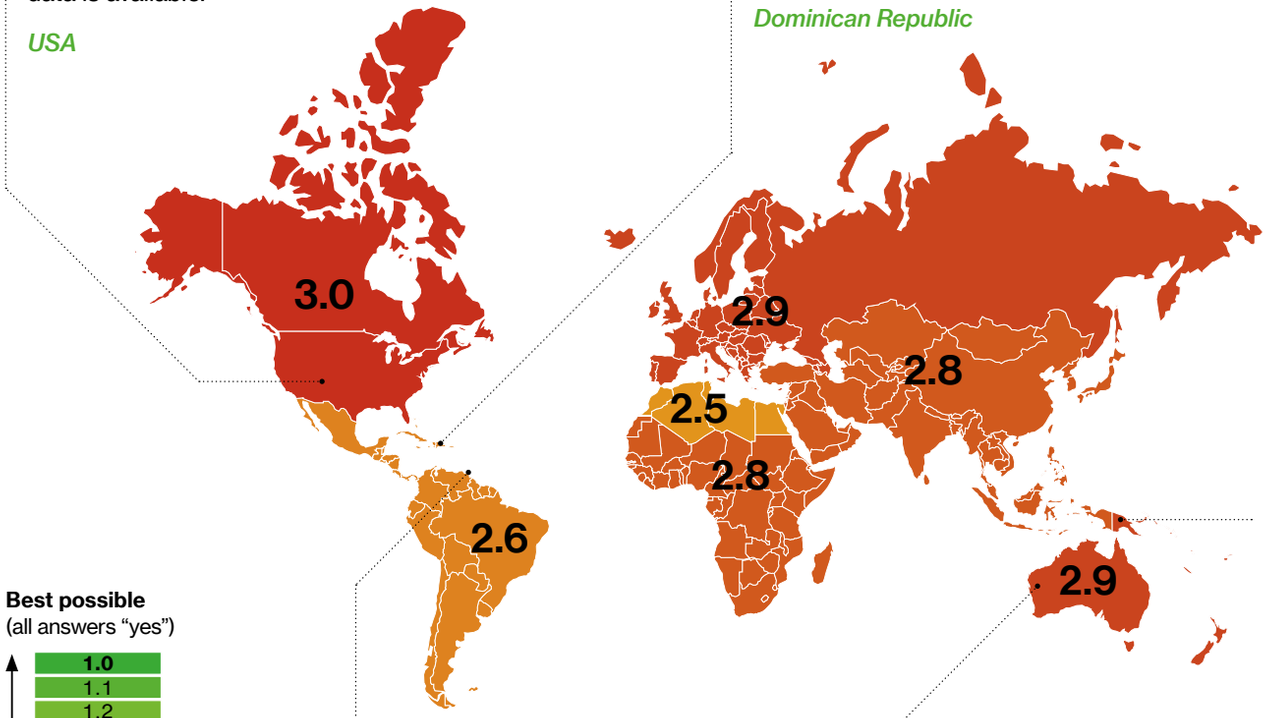
Q14: Is official data available on public buildings, including schools and universities, that comply with the ISO 21542:2011 standards on accessibility and usability of the built environment?

Building design and construction, including safety and accessibility, is largely regulated and enforced by states and local jurisdictions. No data is available.

USA

The country has just approved the National Standard for Accessibility of the physical environment (NORDOM 779) within the framework of the National Quality System. This is a substantial improvement to the existing regulatory framework.

Dominican Republic



Building are accessible but there is no confirmed data or record.

Papua New Guinea

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Worst possible
(all answers "no")

The Trinidad and Tobago Bureau of Standards is currently developing a National Building Codes which is promised to comply with ISO2154:2011 Standards for All Buildings!

Trinidad and Tobago

Australia does not yet align per se with ISO standards. However, significant work is being undertaken in association with Standards Australia delegates via working groups and specifically with Committee ME067 – Assistive Products for Persons with a Disability.

Australia

No country in the survey is publishing data about the number of buidlings that are built according to international standards like ISO, and very few plan accordingly.

The UN CRPD itself – availability of translated, authorized, and accessible versions

Question 5 asks about a basic requirement of the UN CRPD, that is, if the full text of the Convention has been officially published and is also available in alternative and accessible versions. Especially respondents from lower income countries state that the UN CRPD is not fully available and accessible for all.

Q5: Is an audio version, a sign language translation, and a plain language version of the UN CRPD available on an official state website, in all official languages of your country?

A simple language version of translation exist on the link, but not in sign language.

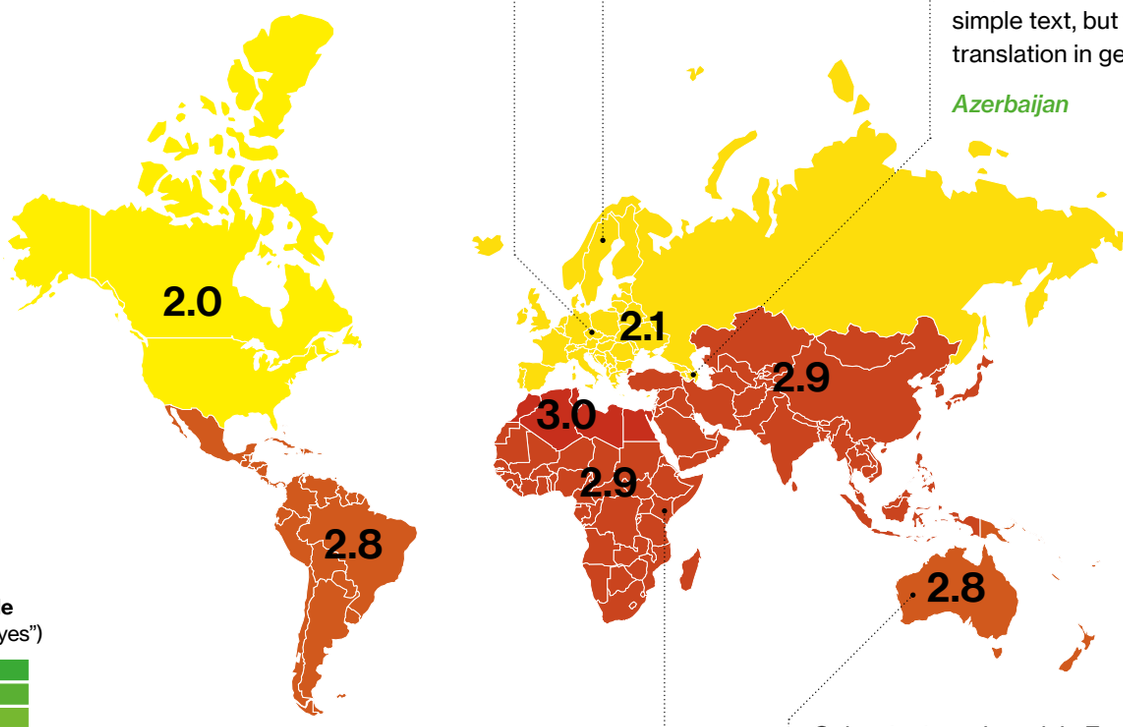
Czech Republic

Plain language has to include symbols and pictures for easier understanding.

Sweden

Yes, the convention has simple text, but there is no translation in gesture.

Azerbaijan



There is no audio version or sign language translation of the Convention available on the official state website. The Convention is not available in Swahili and neither is it available in any local languages for ease of understanding for persons with disabilities. The Convention is only available in English.

Kenya

Only a text version, plain English, and children's version; there is no audio version or sing language translation. Official language in Australia is English and only other translations linked to international UN human rights website.

Australia

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Worst possible
(all answers "no")

It seems to be a comparatively easy measure to make the text of the UN CRPD officially available and accessible for all. However, few countries have made the complete effort so far.

Television and radio programmes – availability of sign language, audio description, etc.

Question 18 asks about the efforts of national TV and radio broadcaster to make their programmes fully accessible, using sign language, audio description, captioning, easy language, or other techniques. The answers point to a variety of approaches, but not to comprehensive strategies.

Q18: In your country, are accessible broadcasting services (television and radio programmes) readily available to all persons with disabilities?

There are some programmes that meet this requirement, but not all. In addition, in the case of the deaf population, close caption is frequently used, but most of the users are not yet proficient in Spanish written language, which prevents them from accessing the information by this means.

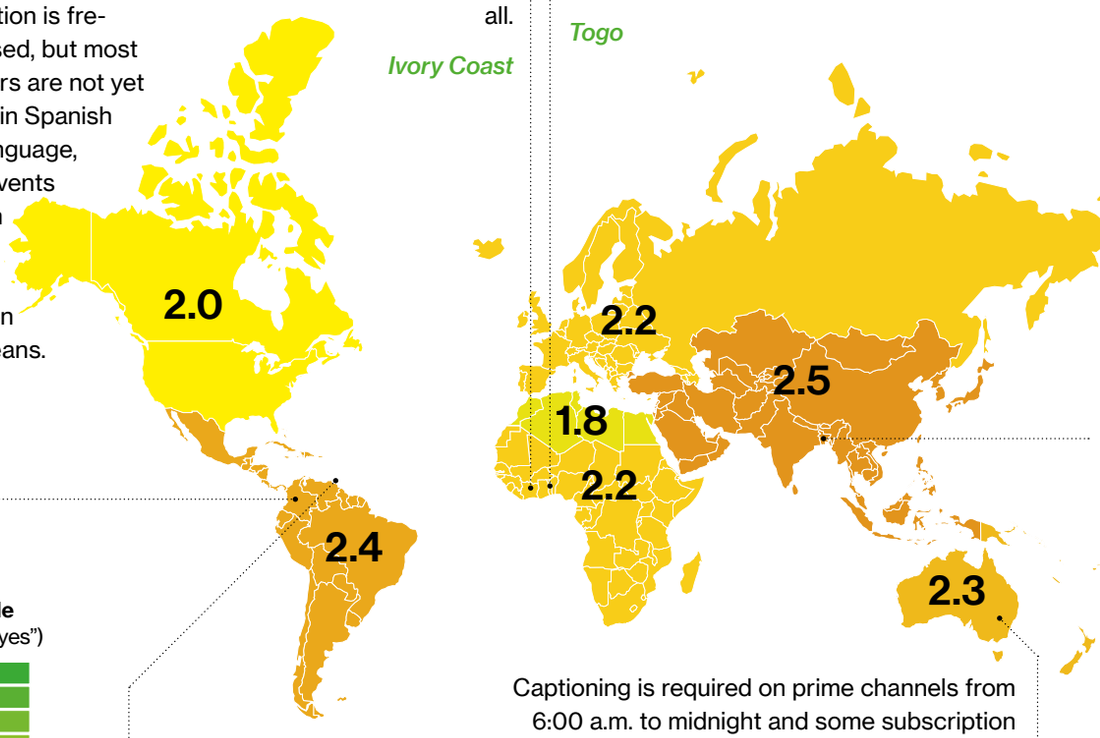
Colombia

For the deaf, the TV News of the First National Channel offers the translation of 13H GMT in sign language every day. That's all.

Ivory Coast

The radio is accessible to the physically and visually disabled, but is not accessible to the deaf. The television is accessible to the physically handicapped and a little to the hearing impaired because there is a interpretation in sign language on the national television only for mid-day news.

Togo



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Worst possible
(all answers "no")

Sign language for the deaf and hard of hearing has begun to take root in two local TV stations, but closed caption needs to be worked on!

Trinidad and Tobago

Captioning is required on prime channels from 6:00 a.m. to midnight and some subscription programmes. Multichannel programmes are subjective to accessible if its parent channel (prime channels) have shown captioned programme earlier. These are included in the Broadcasting Services Act. Audio-description is not included.

Australia

Bangladesh National Television and some private channels offer the option of Bangla sign language interpretation of news.

Bangladesh

With a world average of 2.3, this indicator ranks below average. The good news is that most of the respondents state that in their country some efforts are made. The bad news is that in almost no country (with the notable exception of Germany) a comprehensive approach is taken.

Asssitive devices and technologies – availability of public funding and subsidies

Question 19 asks if government (co)funds the purchase of assistive devices and technologies. Respondees show a clear divide between the continents.

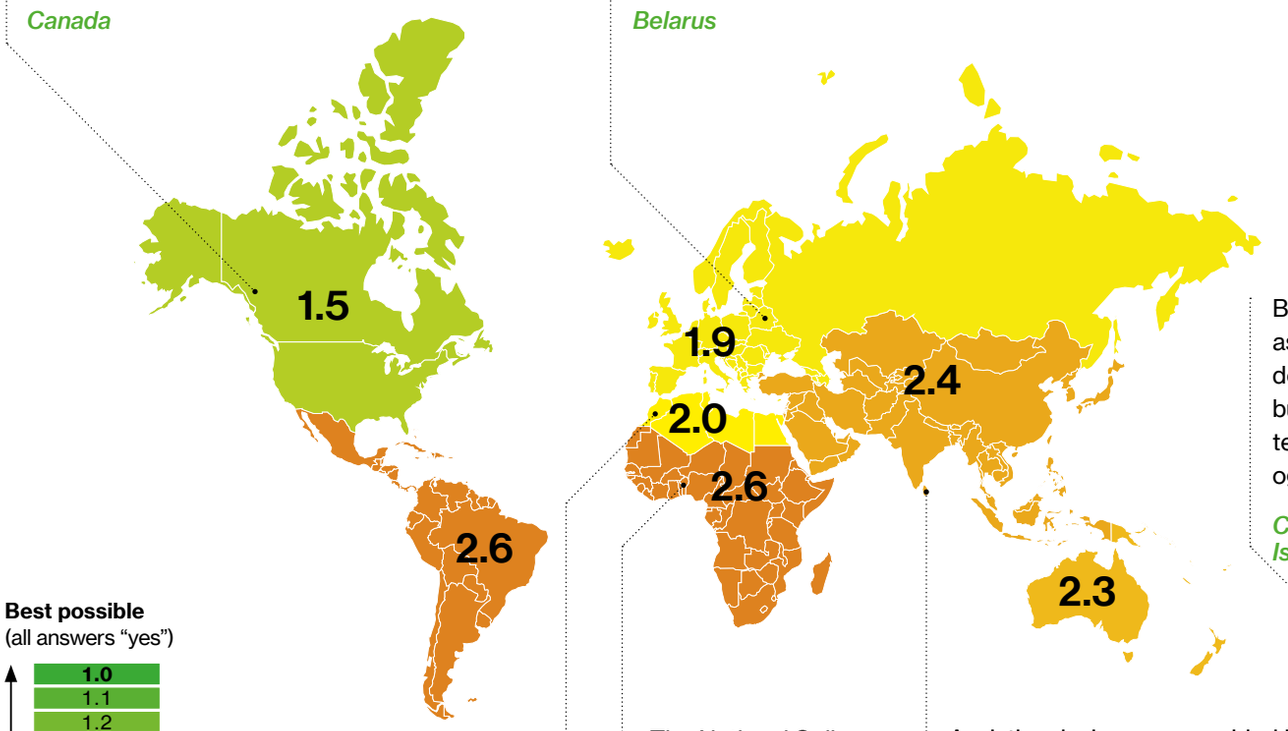
Q19: Is there public funding available to ensure that people with disabilities have access to the necessary assistive devices and technologies?

Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and New Foundland and Labrador have government programmes that cover the cost of assistive devices.

Canada

State social support is guaranteed for persons with disabilities. This support includes provision of social rehabilitation technical aids, including wheelchairs, prosthetic and orthopaedic appliances, printed materials with special font, sound amplifying equipment, and signaling devices.

Belarus



Basic assistive devices, but not technology.

Cook Island

These devices are of very bad quality.

Morocco

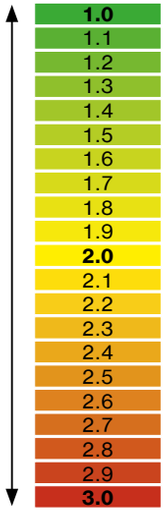
The National Solidarity Support Fund finances technical aids for some disabled people, but the demand is very high.

Benin

Assistive devices are provided by the state only on a case-by-case basis, taking the financial status of the household into consideration. Only a small fraction of the population benefits, as the system is for the poorest of the poor.

Sri Lanka

Best possible
(all answers "yes")



Worst possible
(all answers "no")

At worldwide 2.4, ths indicator is among the lowest in the survey, and the gap between the countries with high development (1.7) and medium/low (2.7) is especially wide. In many low-income countries some support systems exist, but with poor quality and availability.

The right to vote secretly – for all

Question 20 asks about the right for all people to vote by secret ballot in elections. Respondees, very uniquely, are very criticial in Northern America, whereas especially African countries give outstandlingly positive answers. A more in-depth analysis reveals a variety of issues that stand in the way.

Q20: Do persons with disabilities have the right to vote by secret ballot in elections?

Individuals declared incompetent by a court loose the right to vote.

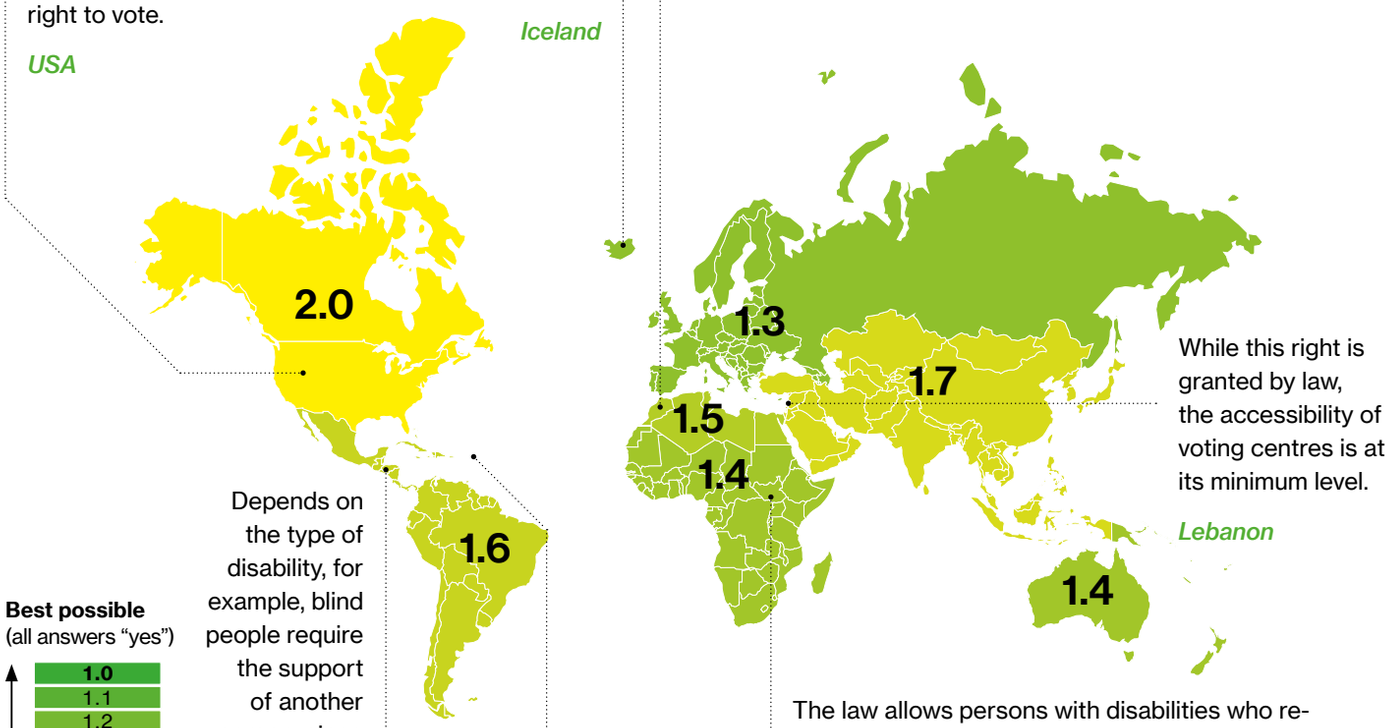
USA

People with intellectual disabilites do nor have the right to decide themselves who assists them in the ballot box when they have the need for such assistance.

Iceland

It is hard to maintain the secrecy of voting due to the lack of compliance with conditions and standards of accessibility.

Morocco



While this right is granted by law, the accessibility of voting centres is at its minimum level.

Lebanon

Depends on the type of disability, for example, blind people require the support of another person, since the ballots are paper.

Honduras

Some disabled persons, for example, sight and hearing, may receive screening help.

Montserrat

The law allows persons with disabilities who require assistance with voting to go with a person of their choice. However, there were situations in 2010 elections where some staff in the polling stations prevented visually impaired persons from using their personal assistants and forced them to be assisted by the polling staff.

South Sudan

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(all answers "yes")

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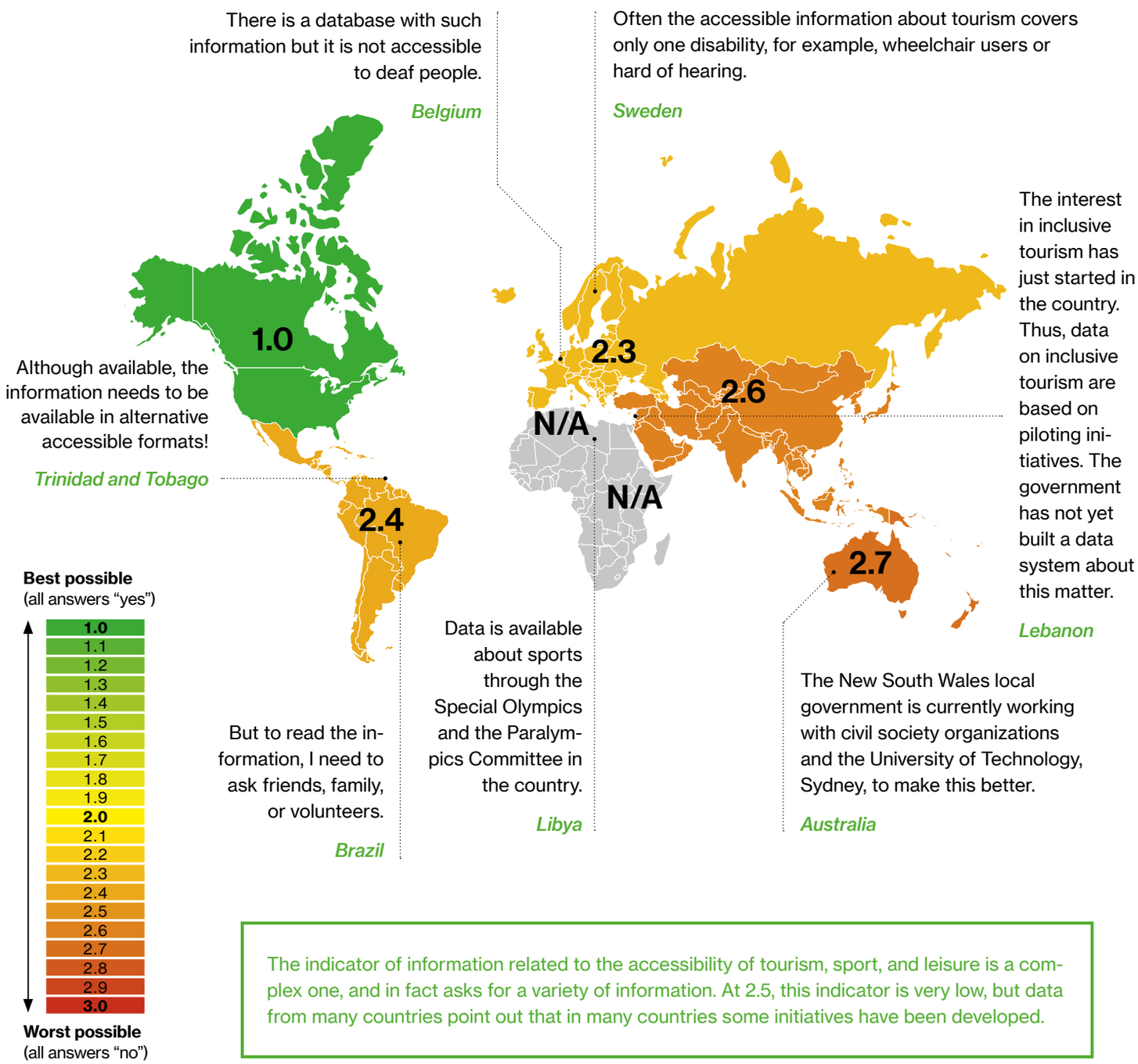
Worst possible
(all answers "no")

This indicator is the highest of all 22, at 1.5 worldwide. Respondents from highly developed countries seem to be especially critical about the access to this fundamental right, when all aspects are considered.

Accessibility of tourism, sport, and leisure – availability of reliable information

Question 21 covers the availibility of reliable information about the accessibility of touristic sites as well as sport and cultural events. North American respondents voted with a uniform and unique 1.0, whereas all other regions noted that the topic is in its infancy, though some progress has been made.

Q21: Is there reliable information about the accessibility of tourism, sport, and leisure services and facilities in your city?



The indicator of information related to the accessibility of tourism, sport, and leisure is a complex one, and in fact asks for a variety of information. At 2.5, this indicator is very low, but data from many countries point out that in many countries some initiatives have been developed.

ATMs (cash dispensing machines) – availability of accessible machines

Question 22 asks specifically if ATMs are accessible to all people and also if they are readily available. Respondents from most of the countries are knowledgeable that some machines exist, but that most of the ATMs are not accessible, or only to some people with disabilities.

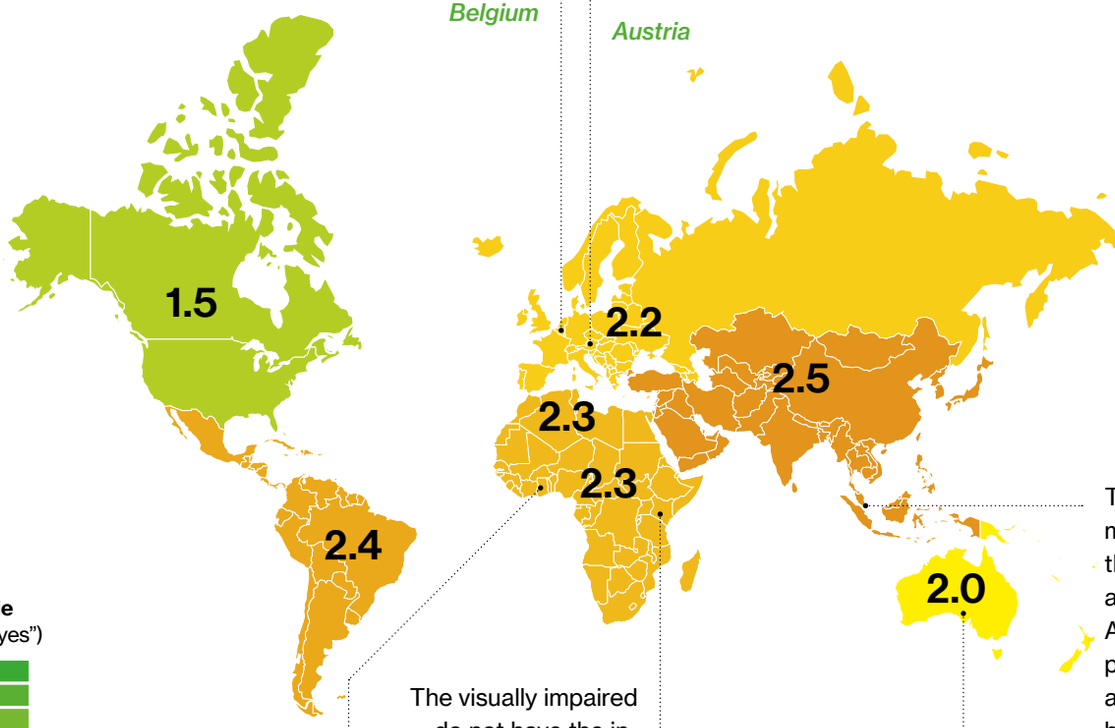
Q22: In your country, are accessible ATMs (cash dispensing machines) readily available to all persons with disabilities?

It is accessible but there is no possibility to call for service via sign language video when there is an issue with the withdrawing or the bank card.

Belgium

There are initiatives by individual banks or banking groups to increase accessibility for various forms of impairment, primarily mobility and sensory impairment. Certainly not all ATMs have been converted; people with intellectual disabilities have hardly been thought of.

Austria



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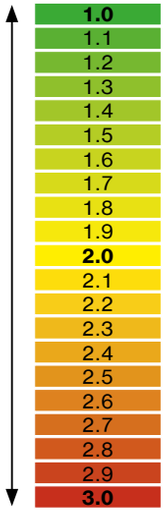

Worst possible
(all answers "no")

Not all ATMs are accessible. Also, accessbility is limited to the provision of ramp and audio facility.

Ghana

The visually impaired do not have the independence of using the ATM because there is no Braille version or option, hence the need for an assistant.

Kenya

Most, if not all, ATMs are accessible. Braille, audio-descriptive, and some ATMs are designed to suit people with wheelchairs.

Australia

To the best of my knowledge there are only a few talking ATMs in Singapore and they are operated by one bank and they are located near the Singapore Association for the Visually Impaired.

Singapore

ATMs (cash dispensing machines) are clearly defined devices, and the technology exists that makes them accessibile for all. There is a business case here as well as supporting accessibility; but with an indicator of only 2.3, it is clear that there is still a long way to go.

SECTION 2:

Innovative Practices 2018

on Accessibility

Fact Sheets

68 Fact Sheets from all Innovative Practices 2018, ranked by country of origin

Life Stories

More than 30 personal stories from users and beneficiaries of the Innovative Practices 2018

How the Innovative Practices are selected and communicated

INNOVATIVE PRACTICES 2018 ON ACCESSIBILITY

This year the Zero Project selected 68 Innovative Practices that positively impact the rights of persons with disabilities to make their lives more accessible in a wide variety of ways. In this section the selection method is described, the common "threads" and solutions are identified, and the list of Innovative Practices and "Life Stories" are presented.

The Zero Project uses a clear definition of "Innovative Practice" (and Innovative Policy as well, see next chapter), and has developed a unique approach involving more than 1,000 experts every year with and without disabilities worldwide for its selection, using its own crowd-sourcing strategy. The stories behind the Innovative Practices are written by the Zero Project team as Fact Sheets and are broadly communicated.

The importance of Innovative Practices
In order to implement fully the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD), significant social innovation is needed. However, social innovation – which can often be disruptive rather than incremental – is a complex process that involves a variety of decision-makers and stakeholders, including some who may be strongly opposed to the change process for any number of reasons. Thus, "real change" can take a notoriously long while, especially when one recognizes the Herculean challenges involved, for example, when moving from an existing separate school system to an inclusive system, and when seeking to create an inclusive and accessible environment.

The process of innovation can, however, be accelerated (or in some cases at least begun) when existing solutions from other environments are used as prototypes that are studied and adjusted to the local context. Even more, unlike Innovative Policies (described in the next chapter), Innovative Practices can only change systems by growing, ultimately changing existing systems nationwide or even internationally.

Finding outstanding Innovative Practices is hard, but it is even harder to find those that can be copied, grown, or scaled-up by the same organization or by others in other countries. It is obvious that scalable innovations are a mix of strategy, skills, and entrepreneurship, but there exists no proven concept about how the scaling-up process really works.

Innovation, impact, and potential to grow
The Zero Project uses the experiences of thousands of experts from all sectors of society worldwide, both with and without disabilities. The unique research process of the Zero Project is all about aggregating their knowledge on the ground so as to identify those innovations that have the highest potential to grow or have already proven that they can be scaled-up based on measurable figures. This process results in identifying innovations that are truly innovative, have the greatest possible impact, and may also have the potential to change frameworks and institutions for the better. As usual, the selection process in 2017–2018 was conducted in various steps.

317 nominations from 73 countries received
In May and June 2017 more than 4,000 people from nearly every country of the world were approached to

DEFINITION OF INNOVATIVE PRACTICES

The Innovative Practices of the Zero Project are projects, programmes, products, and services, but also social enterprises or business strategies. They employ a comprehensible method that can be transferred or copied to other countries, regions, or contexts, and have a proven and measurable impact. Most importantly, they speed up the process of implementing the UN CRPD.

Innovative Practices are selected using three criteria:
1. Innovation
2. Impact
3. Potential to grow

nominate Innovative Practices, which include projects, models, services, products, business strategies, social enterprises, etc. (For the first time, the Zero Project could use the IT-platform of ICNM – the organization behind the World Summit Award in Salzburg – for the whole nomination and selection process, an enormous improvement for the Zero Project team and network.) Nominations were accepted in six languages and alternative formats, and any invitee could nominate any practice by filling in the nomination form. As a result, an astounding 317 nominations for Innovative Practices from 73 countries were received.

140 short-listings from 50 countries
The Zero Project team sorted out those nominations that did not fit the topic of accessibility or obviously did not meet the three key criteria, e.g., projects that had not yet been started or had no identifiable impact. This year some tough decisions had to be made since many outstanding and fascinating technology projects were still in the prototype stage and had yet to have an impact, and consequently could not be admitted to the next steps. However, their representatives were invited to the annual Zero Project Conference in Vienna. In the next step, the Zero Project team asked more than 150 partners to comment on the remaining nominations, assessing their quality as defined by the three key criteria. Based on these recommendations, 140 nominations from 50 countries made it onto the shortlist.

68 Innovative Practices from 31 countries selected
For the voting, a central step in the selection process, 1,500 experts with and without disabilities were approached to rate the shortlisted nominations on a scale from 1 to 6, and more than 300 experts joined the voting. The votes were aggregated into ratings for each nomination, and ratings were ranked. Based on this ranking, half of the shortlisted nominations were selected. Nominations were randomly clustered into groups of 14, but amendments were made in the matching of experts and clusters, and also in the final selection, taking into account the expertise and regional background of experts and nominations. In the final stage of screening and writing, two more nominations were eliminated, resulting in the final number of 68 Innovative Practices.

Fact Sheets, website, conference presentations
In the final step, the Zero Project team researched all the remaining Practices thoroughly and composed their respective Fact Sheets, which are published in this report and on the Zero Project website. All Innovative Practices were also approached to provide "Life Stories" of one selected person who uses the practice or benefits from it, as well as photos, videos, and presentations for the Zero Project (for more details please see box).

Zero Project Award for Innovative Practices 2018
The 68 finalists of the "Innovative Practices 2018 of the Zero Project on Accessibility" were invited to present at the Zero Project Conference in Vienna (21 – 23 February 2018), where they received the annual Zero Project Awards.

HOW INNOVATIVE PRACTICES AND POLICIES ARE COMMUNICATED BY THE ZERO PROJECT

Fact sheet: Find a Fact Sheet of each of the 68 Innovative Practices in alphabetical order by country in this report: pp. 44 to 125.

Life Stories: Innovative Practices are illustrated with stories written by people who directly benefitted from the Innovative Practice or who worked closely with it: see pp. 48, 56, 70, 82, 94, 106, 118.

World Map and Table: A World Map and Table of all Innovative Practices and Policies: pp. 18 to 20 in the Executive Summary of this Report.

Fact Sheets for Download: Find all Fact Sheets in accessible HTML-format and download versions in accessible pdf-Format at www.zeroproject.org.

Search at www.zeroproject.org: Research all Innovative Practices and Policies from 2014 to 2018 using the powerful search engine of the Zero Project Website.

Powerpoint presentations: Find all presentations of Innovative Practices and Policies for the Zero Project Conference in the Download section of www.zeroproject.org.

Video format of presentations: The conference presentations are also produced as videos, which can watched via the YouTube channel of the Zero Project. Full captioning is provided for additional accessibility.

Coverage on Facebook and Twitter: Short video interview with all awardees are produced and shared via Facebook and Twitter. Zero Project will continuously publish Life Stories and current news from Innovative Practices and Policies throughout 2018.

Common threads and solutions used by the Innovative Practices

JOINT ANALYSIS OF METHODS AND APPROACHES OF THE INNOVATIVE PRACTICES 2018

The Zero Project team identified 18 distinct threads and solutions used by the people behind the Innovative Practices.

1 Using Universal Design in urban development

Universal Design is at the heart of several outstanding Practices and Policies, building or improving the built development.

- *Ireland (p. 78)*
- *Norway (p. 102)*
- *Spain (p. 104)*
- *United States (116 and p. 120)*

2 Improving rural environments

Creating accessible built and other environments in rural areas are especially challenging.

- *Afghanistan (p. 44)*
- *Nepal (p. 100)*
- *Sri Lanka (p. 143, Innovative Policy)*
- *Mozambique (p. 98)*
- *Uganda (p. 144, Innovative Policy)*

3 Standards, manuals, and toolboxes

A larger group of Practices use standards, manuals, and toolboxes to support planners and developers of public spaces, infrastructures, and websites. They are substantially more effective when they become mandatory under national or municipal law.

- *Austria (p. 47)*
- *Canada (p. 56)*
- *Chile (p. 60)*
- *Germany (p. 67)*
- *United States (p. 125).*

4 Accessible touristic site, value chain, or TripAdvisor-style platform

Many nominations were in the field of tourism, all seeking to make sites, travel services, and travel related information more accessible – with a particular focus on TripAdvisor-style IT-platforms.

- *Belgium (p. 53)*
- *Ecuador (p. 63)*
- *Italy (p. 89)*
- *Lebanon (p. 96)*
- *Spain (p. 142, Innovative Policy)*
- *Sweden (p. 109).*

5 Orientation maps on smartphone apps

“Map-Apps” seem to be one of the key technologies to create accessible environments and support persons with various disabilities. Apps can be split into those that are based on a central data feed or use crowdsourcing.

- *Ireland (p. 77 and 79)*
- *Japan (p. 92 and 93)*
- *United States (p. 114).*

6 Business services and consulting

Several Innovative Practices have developed business cases in consulting private sector companies or government agencies to make their products and services more accessible, accessible, or made a broadly used business service more accessible to all.

- *Belgium (p. 54)*
- *Egypt (p. 64)*
- *Israel (p. 80)*
- *Pakistan (p. 103).*
- *United States (p. 123)*

7 Orientation systems for the blind

A group of Practices have developed solutions to increase the orientation and mobility of people who are blind or visually impaired, employing a variety of approaches such as “smarter” canes, scanning technologies, and even training the “inner sonar” of people.

- *Chile (p. 60)*
- *Italy (p. 90)*
- *United Kingdom (p. 135)*
- *United States (p. 125).*

8 Databases and other services for the blind

Apart from orientation, a group of Practices provides other services to persons who are blind or visually impaired, such as databases for audiobooks, special text-to-speech services (for a restaurant menu, for example), and phone helplines.

- *Austria (p. 46)*
- *Israel (p. p. 81, p. 86, p. 87).*

9 News in easy language

Easy-to-understand news and other information that are beneficial for people with intellectual disabilities have been developed in

- *Austria (p. 45)*
- *Germany (p. 67)*
- *India (p. 69)*
- *Spain (p. 108).*

10 Subtitling and captioning technologies

Technologies based on text-to-speech or speech-to-text technologies for clearly defined usage, such as in cinemas, theatres, and public building, are at the heart of Practices and Policies from

- *Colombia (p. 132)*
- *Israel (p. 85)*
- *Turkey (p. 111)*
- *United States (p. 115).*

11 Technology boosting sign language

Technology is also key for video-based sign language, bilingual storytelling for children, and automatically translated phone calls.

- *Austria (p. 51)*
- *China (p. 61)*
- *Colombia (p. 62)*
- *Italy (p. 91)*
- *Morocco (p. 99)*
- *United States (p. 117).*

12 IT-platforms connecting peers

Using technology to connect like-minded people, parents, or all stakeholders interested in a specific subject is an approach successfully used in

- *India (p. 69 and 72)*
- *United States (p. 116 and 124).*

13 Personal pairing of buddies and peers

A distinct group of Practices brings together "buddies" (with and without disabilities) to travel or to attend events.

- *Germany (p. 66)*
- *India (p. 74)*
- *United Kingdom (p. 112).*

14 Training students and professionals in web design and accessible ICT

Outstanding and sometimes also self-sustaining training models have been developed in

- *Mexico (p. 97)*
- *United States (p. 113).*

Innovative Practice 2018: Thanks to South America For All Machu Picchu is now accessible for all.

15 Access to the arts and museums

The arts and museums are made more accessible using a mix of training, tools, and technology by Practices from

- *Austria (p. 50)*
- *Bosnia-Herzegovina (p. 55)*
- *Spain (p. 105)*
- *United States (p. 122).*

16 Children playgrounds

Two Innovative Practices target the accessibility of playgrounds for all children.

- *Hungary (p. 68)*
- *Israel (p. 84)*

17 Access to justice

Several Practices and Policies work successfully on access to information in legal matters and for fair treatment by the police and courts for people with intellectual disabilities.

- *Israel (p. 88)*
- *Spain (p. 141, Innovative Policy).*

18 Access to health services in low income countries

A group of Innovative Practices have established successful approaches to accessing health services in low income countries, such as rehabilitation centres, prosthetics, and the monitoring of child development.

- *Bangladesh (p. 52)*
- *India (p. 73)*
- *Indonesia (p. 76)*
- *Switzerland/Togo (p. 110).*

19 Access to humanitarian aid and disaster relief measures

Practices and Policies that work in post-earthquake situations or towards better preparedness come from

- *Nepal (p. 101)*
- *Indonesia (p. 75).*

Making schools accessible for children with physical disabilities in Afghanistan

AFGHANISTAN / ACCESSIBILITY ORGANIZATION FOR AFGHAN DISABLED

Accessibility Organization for Afghan Disabled (AOAD) is a non-governmental organization established by persons with disabilities that is working as a peer-supporter and advocacy outlet in Kabul, Afghanistan. The project addresses the need for accessible school buildings for children with disabilities by developing inclusive educational environments with accessible ramps, handrails, washing rooms, and drinking water installations. As a result, from 2013 to 2016 more than 3,000 children with disabilities were able to access education. Furthermore, the project has expanded to other regions of the country.

Problem targeted

As a result of war and other uncertainties over the last four decades, there are currently some 280,000 children with physical disabilities in Afghanistan; and most public buildings, including schools, are not equipped with physical accessibility features.

"Now many children with disabilities in the war-torn country of Afghanistan can continue their education, and their parents' and community's mindset has changed with seeing and believing."

Abdul Khaliq Zazai, Executive Director and Founder, AOAD

Solution, innovation, and impact

AOAD is the first national organization to introduce Universal Design and to create accessible educational environments for children with disabilities. To make public schools accessible, AOAD reached out to accessibility consultations, and local assessments were conducted. The organization then enabled the better inclusion of children with disabilities by equipping schools with accessible ramps, handrails, washing rooms, and drinking water installations. To date, approximately 100 schools have been adapted. The project removed some of the problems of a marginalized, vulnerable, and excluded group in communities where it was implemented. Furthermore, it improved the overall living conditions of people with disabilities and strengthened their independent movement in society.

Abdul Khaliq Zazai
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As a result, more than 3,000 children with disabilities have been able to attend school and access education, and 108 staff members (including teachers) were given trainings and workshops on the facilities provided. The project has created awareness among policy makers, and new building codes for physical accessibility regarding public buildings was introduced.

Outlook, transferability, and funding

The project receives funding from the non-profit organizations Association for Aid and Relief Japan; the ABILIS Foundation and Cordaid from the Netherlands; the embassies of France, Finland, and the Netherlands in Afghanistan; the United Nations Mine Action Centre for Afghanistan; and the U.S. Department of State Weapons Removal Abatement. The organization has further expanded its project to other provinces, including Pawan, Laghman, Nengarhar, Kuner, Helmand, and Herat. Other countries in the region, such as Pakistan, India, Iran, and Tajikistan, have also shown interest.

FACTS & FIGURES

From the beginning of the project in 2007 the following results have been achieved:

- 108 staff members with disabilities from various schools have benefited from the provided accessible facilities.
- To date, approximately 100 schools have been adapted.
- By the end of 2017, 4,000 children with disabilities have enrolled in schools.

National news agency publishing news in easy-language

AUSTRIA / APA TOPEASY AND CAPITO

The Austria Press Agency (APA), based in Vienna, is a national news agency and the country's leading information provider. In cooperation with Capito – a service provider specialised in translating complicated subjects into easy language, based in Graz, Austria – the APA has launched a news service in easy language called "Top Easy." Currently, around 40,000 persons per month use the service.

Problem targeted
News published in conventional formats is often not accessible to persons with intellectual disabilities due to the sophisticated language used. Moreover, there is a lack of news services providing content in easy language for this target group.

Solution, innovation, and impact
APA launched the easy German language news service Top Easy within the framework of a pilot project, which started in March 2017. Five times a week Top Easy is presented as a compact news overview, including four to six of the most important news stories of the day in the fields of politics, economics, history, culture, and sports. The service targets persons with intellectual disabilities and is available through a variety of sources and formats, including television teletext, a daily newsletter, a partnering online newspaper, or APA online services.

Initially, the APA's partner Capito translated the news content into easy language and tested it with persons with intellectual disabilities on a daily basis. Since then, Capito has trained APA staff in translating the content in-house, and it is currently providing its expertise soley for checking the quality of the APA translations and providing feedback.

"I am 68 years old, and since an accident I depend on a hearing aid. I am no longer able to understand many words or sentences when they are spoken quickly. TopEasy is a tremendous help for me."

Anonymous teletext user

Alexandra Roth
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FACTS & FIGURES

- A compact news overview of around four to six short articles are produced each day.
- Daily newsletter provided to around 100 key users in non-profit organizations.

Outlook, transferability, and funding
Since July 2017 the Austrian public broadcasting company's teletext service has been providing a new feature – Nachrichten leicht verständlich ("News easy to understand") – based on the APA-TopEasy news service.

The model can be replicated in other German-speaking countries by establishing a network of news and translation agencies for easy language. There have been deliberations to simplify the language of the TopEasy news feed even more in order to reach people with other types of disabilities, such as cognitive disabilities.

The project was financed by the Austrian Ministry of Social Affairs, covering the whole pilot period in 2017 including editorial work, organization, and training. APA will apply to the Ministry again for funding to cover 2018.

Capito has trained the news agency staff in translating the content in-house and is only doing quality checks now.

Restaurant menu reading app for persons with visual impairment

AUSTRIA/ MOPIUS – MENUSPEAK

Mopius is an IT start-up company based in Vienna, Austria, which has developed MenuSpeak, a barrier-free, multilingual application that helps people with visual impairments to choose food and beverage items from the menu in a café or restaurant. Currently, the app is used by more than 25 hospitality companies.

Problem targeted
Many situations in the daily lives of people with visual impairments are challenging since most information is presented in a predominantly visual way, e.g., restaurant menus.

Solution, innovation, and impact
In order for persons with visual impairments to overcome this barrier, Mopius Mobile GmbH has developed MenuSpeak. This app recognizes a user's specific location through so-called iBeacons, which are Bluetooth transmitters installed in a location that communicate with a user's smartphone. It automatically shows the menu in any of more than 50 languages, and it can even read the menu out loud, if desired. The user then chooses from the menu and places his/her selected items in a virtual shopping cart.

"MenuSpeak is an example of how new technologies can contribute to the inclusion of people with visual impairment. It is not an island solution for VIPs, but a meaningful service for all guests."

Klaus Höckner, CEO Hilfsgemeinschaft

From the shopping cart, the app translates it back to the service personnel and then back into the local language. This also improves interaction between the facility's staff and guests who are not familiar with the local language.

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FACTS & FIGURES

Since the start of the pilot project in December 2016:

- 3,000 users have downloaded the app.
- The app has 440 monthy active users.
- The app had 25,000 visitors.

Outlook, transferability, and funding
MenuSpeak is designed to work in many locations and is currently being used in Austria and Jamaica (the contact with Jamaica was established at the 2017 Zero Project Conference), and the multi-language function of the app can be readily replicated in other countries. With the help of a Software Development Kit, the solution could be integrated into other existing apps and services.

The company is working on a self-financed, sustainable business model. To date, MenuSpeak has been funded by the parent company, Mopius, which has received financial support for marketing and promotion purposes from project partners Hard Rock Café Vienna, Café Wien Group, and the Community of the Visually Impaired (Hilfsgemeinschaft der Blinden) in Austria.

Available in 54 languages.

Online accessibility self-check tool for companies

AUSTRIA / ÖZIV – BARRIER CHECK

ÖZIV is an Austrian NGO that advocates independent and inclusive living for people with disabilities. Together with the Austrian Chamber of Commerce, ÖZIV has developed an online evaluation tool called Barrier-Check, which educates and trains companies about barrier-free requirements. Since its start in 2015, more than 11,000 users have hit the webpages over 90,000 times.

Problems targeted
For many companies the legislation regarding obligatory barrier-free access is new and unfamiliar, and sometimes is even met with resistance.

Solution, innovation, and impact
Barrier-Check provides complete online information about barrier-free access (www.barriere-check.at). The site allows users to get a traceable and clear analysis of their own situation regarding accessibility, leading to a self-critical look at all relevant parts of a company.

FACTS & FIGURES

From 2015 to 2017:

- More than 2,000 companies have used Barrier-Check.
- More than 11,000 users have registered.
- The site has received over 90,000 hits.

"With Barrier-Check, companies get precise help and orientation around the topic of barrier free access as well as an informative self-check of their facilities."

Pia-Maria Rosner, Austrian Chamber of Commerce

The result is a well-structured description on what to do and how to proceed. Furthermore, companies are encouraged to present their results on their own website. The innovative element of Barrier-Check is the detailed analysis of the chain of services in a company or organization. This chain consists of different modules, which can easily be chosen, integrated, and removed via a drag and drop feature. Further, the practice is very flexible such that it can be adapted for all sorts of companies, their respective field of business, and various departments.

Barrier-Check started in April 2015 and had 15,000 hits in the first nine months. To date, approximately 2,000 users – primarily in the hospitality sector (hotels and restaurants) – have used the cite and have taken the necessary corrective actions.

Outlook, transferability, and finance
Barrier-Check is an online tool for use in Austria. Its low-threshold service raises awareness and assists with knowledge transfer. Required actions are clearly described, which helps reduce prejudices towards the subject of accessibility. The tool can be adapted to any individual company and their chain of services. Moreover, there is the possibility to add further modules to the chain of services. ÖZIV believes that Barrier-Check can be replicated internationally by taking the respective local rules and requirements into consideration.

ÖZIV does not make any profit from Barrier-Check and considers it as an information and awareness tool. The initial total cost of €13,000 was covered by the Austrian Chamber of Commerce, and the actual running costs are marginal.

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Life Stories from Bangladesh, Bosnia and Herzegovina, Chile, and Colombia

THE STORY OF MIRSAD ĐULBIĆ,
BOARD MEMBER OF THE ASSOCIATION OF PARAPLEGICS AND POLIOMYELITIS FROM ZENICA

"They let us live the culture of our everyday life."

Zenica, Bosnia and Herzegovina

My name is Mirsad Đulbić, and I am a retiree, local historian, and culture lover from Zenica, Bosnia and Herzegovina. Average in everything, not special in anything. I do not think I know anything special about Zenica – there are a hundred people who know more than I do – but I like to share my knowledge with others. I used to do it through daily and weekly newspapers.

Not so long ago, I wasn't able to get into many institutions and move within the city without difficulty. And I and my friends love socializing, sports, and cultural programmes. Thankfully, however, there is the Zenica City Museum. The building of this museum is fully accessible and provides all the necessary amenities. Accessibility is such that no companion assistance is required. I often go there with my friends and our spouses. The museum has removed all barriers for us, and has let us enjoy culture in our everyday lives.

The photograph shows me with the former Mayor of Zenica, who is presenting me with a thank-you card for my assistance in the preparation of a museum exhibition during the opening ceremony.

See corresponding Practice on page 55

THE STORY OF HANUFA,
MOTHER OF MIM AND USER OF CSF

"Mim can walk now and is trying to speak."

Bangladesh

My name is Hanufa, mother of three-year-old Mim. I once had a piece of land with a beautiful house, but everything was swept away by the flooding river. Now I live in a tiny rented house with three children, which is a miserable life.

My daughter Mim has been affected by cerebral palsy since birth. I could not take her to hospital or to a physician for treatment due to lack of money. Before the intervention of the CSF, Mim could not walk, could not speak, and had no hope. But after three months of intervention, she can now walk and is already trying to speak! I believe she will walk normally, speak properly, and will go to school after a couple of more months.

I am very happy to see my child's development. I am going to Shishu Shorgo ("Children Heaven") five days a week and they are providing therapeutic services, training for parents on how to manage children with disabilities at home, cleaning and hygiene practices, and orientation on social communication. CSF is the only organization providing services in this rural area. We are blessed that my child is getting these services, but there are a lot of children who are not getting any kind of service in other areas.

See corresponding Practice on page 52

THE STORY OF NICÉFORO ANDRÉS AMADO, USER OF CENTRO DE RELEVO

"I am working at Corona and can now even participate in team meetings."

Anolaima, Colombia

My name is Nicéforo Andrés Amado and I am 32 years old. I was born in Anolaima, a town of about 300,000 people located in the Colombian Department of Cundinamarca, very close to the capital, Bogotá. When I was born I was able to hear, but after a few months I lost my hearing due to an accident.

Before encountering the FENASCOL "Centre for Change: Technologies for Inclusion" project I was highly dependent on the support of others to access information, and it was frustrating to communicate with people. I did not always have the funds to hire a face-to-face interpreter, and so I had to make people understand my in other ways. That changed, however, seven years ago when a friend told me about the FENASCOL project. That's when I started using their call relay service. I called my mom and she could not believe it was me! Later, I started using the Online Interpretation Service (SIEL), and it became my daily tool, since it allows me to communicate with my fellow listeners of the Corona Company, where I currently work. Thanks to the SIEL interpreter, when the company holds team meetings I do not miss any information and participate actively.

The "Centre for Change" really changed my life. It gives me peace of mind and, most importantly, it gives me the opportunity to be independent.

See corresponding Practice on page 62

THE STORY OF BERNADITA SANTA CRUZ, DESIGNER AND ENTREPRENEUR

"I could again move in my own house, and I will apply it to other spaces in the future."

Santiago, Chile

I am Bernardita Santa Cruz, a 26-year-old designer and founder of the shoe brand Mibe. I am also a painter and ceramist who has a busy life among my friends and family. In October 2016 I had an accident, and as a consequence I have become paraplegic. At that point I had to begin to know my body in this new condition; and in spite of the pain, I have been learning again to move, sit, dress, and drive. I work every day to overcome my physical limitations. However, I have often discovered that the barriers I face are not caused by my physical problems, but that instead they are caused by my environment.

The first barriers I encountered were inside my own house: I could not move from one place to another because there was unevenness in the interior (between corridors and living areas) and impediments in the exterior (e.g., accesses and terraces). Further, my bedroom and bathroom were incompatible with use by a person in a wheelchair. Even before I returned to my home after the accident, my parents realized that they had to make changes so that I could be as autonomous as possible. To that end, the assistance of Corporation Ciudad Accesible has been vital. The renovation of our home was based on its accessibility guides and manuals, which provided us with specific measurements, support materials, distribution ideas, etc. And these materials will also allow me to prepare other spaces wherever I move in the future.

See corresponding Practice on page 57

Easy language as a key to the exhibition experience

AUSTRIA / SALZBURG MUSEUM

The Salzburg Museum in Salzburg, Austria, offers text and information about their exhibitions and collections in easy language. The museum first implemented this service during its 2016 exhibition titled "Bishop, Emperor, Everyman," which allowed many people with intellectual disabilities to participate in cultural life in an independent way. The service has become a standard for the museum.

Problem targeted
Complicated and complex texts are a barrier for people with intellectual disabilities, excluding them from independent participation in a cultural life.

Solution, innovation, and impact
The Salzburg Museum is making their exhibitions accessible for people with intellectual disabilities by translating their introductory and accompanying texts into easy, accessible language. With this service, the museum seeks to make a statement regarding the instituation's fully inclusive nature, whereby the easy language text is not only for a minority group but is an integrated part of the museum experience for the general public.

"Now I can read and understand the text on my own, without anyone's help. This makes me very proud."

Johannes Hollweger, a Salzburg Museum visitor

The innovative aspect of the practice is that the easy language text is not an additional service but is part of the regular text of the exhibitions. The Salzburg Museum was concerned about the quality of their texts, and has used a text in A2 (language level) format, which they first had tested and verified by a group of people with intellectual disabilities. In a second step, the text was certified with the CAPITO trademark (meaning "I understand," developed by the company Atempo) for easy language.

The easy language text has removed intellectutal barriers for people with and without disabilities and has broadened the appeal of the museum. The discussions and reactions of the general public have led to publicity of the topic and a clarification of the subject. A study has shown that the easy language has been used by 49 per cent of the test group.

Easy language has been used by 49 per cent of museum visitors.

Outlook, transferability, and funding
A digital handbook has been created summarizing the most important facts and experiences, which serves as a guideline for other institutions. Moreover, there are publications and contributions at conferences and workshops throughout Austria for other museums that wish to follow the Salzburg Museum's example. The museum texts are evaluated by the University of Salzburg/Mozarteum as part of the science and arts studies programme.

Currently, 80 per cent of the funding comes from the government, and 20 per cent from the museum's own budget.

FACTS & FIGURES

- A study has shown that the easy language has been used by 49 per cent of the test group.
- Since easy languge was first introduced in 2016 there have been 11 accessible exhibitions.

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Bank employees provide sign language services to customers

AUSTRIA / UNICREDIT BANK AUSTRIA – SMART BANKING IN SIGN LANGUAGE

UniCredit Bank Austria, a major Austrian banking group, introduced "Smart Banking in Sign Language" nationwide in 2015 – advice on banking products in Austrian Sign Language. Initially cooperating with the Service Centre of the Austrian Sign Language Society, the bank is now using their own employed sign language interpreters to translate banking service for their deaf and hearing-impaired clients. Three sales managers are available for consultation in sign language as part of the 'online branch'.

Problem targeted
About 10,000 people in Austria communicate through sign language. For the deaf or hearing-impaired, sign language is often the only possibility for accessible and comprehensive communication.

Solution, innovation, and impact
Since 2015, UniCredit Bank Austria has been offering Austria-wide consultations for customers in the form of sign language via video calls. The concept allows for a variety of transactions (e.g., investment strategy, real estate financing, loan transactions, pension insurance plans, savings, etc.) to be performed, and is available from Monday to Friday from 8 a.m. to 8 p.m. by appointment.

"It is a beautiful experience and is important for me to be able to communicate with my clients in their own language! That is why I learned sign language."

Gabriella Stuhr, SmartBanking Sales Manager, UniCredit Bank Austria

The key innovative of "Smart Banking in Sign Language" is its availability via webcams, thus making the process independent of going to a physical location, as well as making the self-organization of sign language translation obsolete. Since most deaf or hearing-impaired persons are at ease with the use of such visual communication channels, the barrier to using this service is low.

UniCredit Bank Austria is making an important step in raising awareness of the needs of deaf people in Austria. Due to the bank's personal data policy, information about the number of users is not publicly available.

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FACTS & FIGURES

- Three sales managers available to offer consultations and services in sign language via webcams throughout Austria, regardless of location.

Outlook, transferability, and funding
At the start of the project, external sign language interpreters were hired and paid by Bank Austria, whereas now customer support and translations are carried out by the bank's own staff.

UniCredit Bank Austria is further developing its accessibility in other aspects of bank activities, starting with fully accessible bank branches, websites, online banking, forms, and information materials. One of the three sales managers working on this project will soon be a state-certified sign language interpreter and will not only be able to advise in sign language, but also interpret consultations with the bank's experts, such as in real estate and investments for deaf clients.

The concept allows for a variety of transactions (e.g., investment strategy, real estate financing, loan transactions, pension insurance plans, savings, etc.) to be performed.

Access to basic health services for children with cerebral palsy in Bangladesh

BANGLADESH / CSF GLOBAL – EARLY CHILDHOOD SERVICE CENTRES

In the Sirajganj District of Bangladesh, CSF Global has set up a centre for early childhood services, specifically targeting children with cerebral palsy from rural areas. The centre offers therapeutic service to the children and provides training to the caregiver for home-based therapy and rehabilitation. Perkins International (a U.S.-based international organization), the Australian Government, Cerebral Palsy Alliance Australia, Wheelchairs for Kids Australia, and Sydney University are supporting this project.

Problems targeted
CSF Global (formerly the Child Sight Foundation) conducted national research on childhood disabilities in Bangladesh and identified thousands of children with cerebral palsy with no treatment facilities.

Solution, innovation, and impact
The main purpose of this project is to inform children with disabilities and their families regarding basic health issues and accessible health services and to increase the rate of children with disabilities to receive basic health services from health care centres.

"I am very happy that my daughter can say 'Ma' (mother) after four months of therapeutic service from CSF Shishu Shorgo. Now I am eagerly waiting for 'Baba'."

Shuman Sharker, father of a 5-year-old girl with cerebral palsy

Together with partners Perkins International and the Australian Government, CSF Global started the first development centre in rural Bangladesh for children with cerebral palsy by using the Key Informant Method (KIM) – an approach to identify children with disabilities through trained community volunteers.

Initially, the children receive four hours of therapeutic treatment per day and a development session by trained physiotherapists for the first six months. At the same time, the organization prepares society to accommodate the children after the therapy has been concluded. This preparation includes a check for school readiness, teacher training, and the adaptation of infrastructure. Further, families receive some financial support from the local government.

Md Johurul Islam
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CSF Global has developed a standard transition manual (free for download) that can be used in any country. CSF Global estimates that each childhood service centre can be self-sustaining after five years.

After this six months period the children are admitted into a mainstream school, and CSF Global follows-up to ensure their further social inclusion.

Outlook, transferability, and finance
CSF Global started with one centre and after a year the organization opened two more centres due to high demand. The organization has developed a standard transition manual for starting a development centre and providing therapeutic and other services in any country. The manual, which is perceived as very hands-on and easy to use, can be downloaded at www.csf-global.org, and CSF Global is ready to offer further support as needed.

CSF Global does not provide any financial support to children, but it does provide assistance in gaining admission to mainstream schools.

FACTS & FIGURES

- Since 2013, 400 children have received therapeutic services for their early development.

see corresponding Life Story on page 48

Itinerary and walking maps for visitors with disabilities

BELGIUM / VISIT FLANDERS – MAPS OF BRUGES

Visit Flanders is the official tourism administration in Flanders, the northern region of Belgium. In 2015, Visit Flanders worked together with all relevant national, regional, provincial, and local authorities and the accessibility agency Inter to make the historic town of Bruges more accessible for people with disabilities. The result is a dedicated walking map and itinerary targeted at people with various disabilities and impairments, and at visitors with mobility problems such as parents with strollers. More than 1,100 maps have been distributed to date, and more than 2,000 digital copies were downloaded from the website.

Problem targeted
Bruges is a historic city with cobblestoned streets and squares, narrow passages, heritage buildings, and many canals. The city attracts national and international tourists; but for elderly people, wheelchair users, and the visually impaired, Bruges presents many obstacles.

Solution, innovation, and impact
Bruges wants to be an attractive city for every visitor, and to that end an accessible tourism plan was created and implemented. A wide scope of informants with specific needs has been involved: the blind and visually impaired, wheelchair users, and persons with walking difficulties.

> "I have a dream, I dream that every town and city with all its buildings and places of interest will be fully accessible to people with disabilities."
>
> Geert Dumoulin, a wheelchair user

Infrastructure was adapted with respect to the historic authenticity of the city; tour guides and museum and reception staff were trained; and practical information about the accessibility of the whole service chain was collected. The resulting brochure contains a walking map with ten different routes through the historic city centre, connecting the touristic highlights while avoiding the worst obstacles. The brochure also describes the accessible facilities along the way (accommodation, attractions, restaurants, cafés, public toilets, transport and parking facilities, care and mobility aids, etc.).

The wide scope and geographical size of the project are very ambitious since the information offered is not limited to a specific type of facility, but includes the whole tourism value chain, thereby providing information about an entire holiday destination.

FACTS & FIGURES

- 1,100 brochures in English and Flemish have been distributed.
- The project website has had approximatively 2,500 views.

Outlook, transferability, and funding
The brochure information will be updated every two years, at which time new initiatives will be screened and added. Visit Flanders believes that the project can be easily replicated by other historical cities throughout the world. The personnel of the city of Bruges as well as the municipal council have become deeply involved with the theme of accessibility; and the project analysis has pointed out some bottlenecks that have immediately been (or planned to be) tackled by the city. Due to this gathered knowledge, the city now pays much closer attention to a "design for all" when considering new projects. Moreover, following the Bruges example other city boards now feel the urge to invest in the realization of an accessible tourism chain in their own town. The Bruges example has inspired a similar walking map in Ghent (2017, not in cooperation with Visit Flanders), and upcoming initiatives include Mechelen and Leuven.

Thus far, Visit Flanders has invested approximately €150,000 in the project.

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Comprehensive database of accessibility features in mobile devices and Smart TVs

BELGIUM / MOBILE & WIRELESS FORUM – GARI

The Mobile & Wireless Forum (MWF) is an international association of companies with an interest in mobile and wireless communications based in Brussels, Belgium. The MWF's "Global Accessibility Reporting Initiative" (GARI) is a free online database that lists the accessibility features of mobile phones, tablets, apps, Smart TVs, and wearables. GARI provides information on more than 110 accessibility features of approximately 1,100 mobile phone models and receives 500,000 views per month.

Problems targeted:
Persons with disabilities and the elderly may not have access to information on what accessibility features are available in electronic devices and what devices support these features.

Solution, innovation, and impact
In 2008 the MWF created GARI (www.gari.info), a large searchable online database that lists the accessibility features of various electronic devices. Customers can access the database to see what accessibility features exist and on which devices. The information is displayed for free and in 17 languages.

"We welcome this initiative from ICT industry players to raise awareness about e-accessibility and encourage consumers with disabilities to use the devices that better meet their needs and expectations."

Humberto Insolera, European Disability Forum, Executive Committee member

GARI lists more than 110 accessibility features covering approximately 1,100 mobile phone models from around the world. While mobile phones remain the focus, the website has expanded and now also lists 67 accessibility features for tablets, 57 for Smart TVs, and 52 for wearables. Participating manufacturers are responsible for uploading the information on devices themselves, while such global attributes as operating system information is updated by the MWF team.

As of mid-2017 nine regulatory bodies or governments have integrated GARI into their own websites or provided links to GARI.

Michael Milligan, MWF Secretary General
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The best ICT-Platform to find the ideal smartphone (or other device) for your needs.

The Federation Institute of Telecommunications in Mexico has created an online portal to display the accessible devices available in Mexico, and there are similar technologies in place at other regulatory bodies such as ANCOM in Romania, BIPT in Belgium, FICORA in Finland, and several more.

Outlook, transferability, and funding
GARI is a globally available database, with a majority of visitors to the GARI website coming from North America and Europe (28 per cent and 35 per cent, respectively). In 2016 the percentage of visitors from Latin America doubled and searches in Spanish and Portuguese languages have increased.

The MWF is committed to regular reviews of the features that GARI reports. Every 18 months around 80 accessibility stakeholders from around the world are invited to participate in a feature review, including representatives of persons with disabilities, consumers, senior citizens, and accessibility experts. This has resulted in new features being added to the database on a regular basis. GARI is financed through membership fees of participating technology providers.

FACTS & FIGURES

- Information is provided in 17 languages.
- Some 1,100 mobile phone models are listed.

Collaboration among museums in the Balkans to develop accessibility

BOSNIA AND HERZEGOVINA – THE BALKAN MUSEUM ACCESS GROUP

The Balkan Museum Access Group (BMAG) is a peer-learning group of individuals that work in the museums of five countries in the Balkan region. Funded by the Stavros Niarchos Foundation, BMAG is committed to developing their accessibility knowledge and to implementing accessibility features in their own museums, supported by two disability consultants and a three-year training programme.

Problem targeted
Persons with disabilities often find it difficult to enjoy museums in the Balkan region due to a lack of accessibility features, resulting from inadequate budgets as well as a low level of knowledge and skills on the part of museum staff regarding accessibility and inclusion.

Solution, innovation, and impact
The Balkan Museum Access Group is a collection of nine professionals working in museums in five countries in the Balkan region (Albania, Bosnia and Herzegovina, Greece, FYR Macedonia, and Serbia). BMAG is a permanent working group of the Balkan Museum Network, which provides support to BMAG and its members. Members of the group focus on increasing their own knowledge and capacities on accessibility issues, supported by two international disability consultants in charge of running a comprehensive capacity-building programme.

"They removed barriers for us, and let us live the culture in our everyday life."

Mirsad Đulbić , board member of the Association of Paraplegics and Poliomyelitis from Zenica

BMAG members formally meet three times per year to share good practices in museum accessibility and inclusion, and then take those ideas back to discuss and implement in their own museums.

As of summer 2017, individuals within BMAG were undergoing a three-year theoretical and practical training programme as to implement new accessibility features and projects in their museums.

Projects that BMAG have supported include practical workshops in art pottery for persons with and without disabilities at the Museum of Tešanj, Bosnia and Herzegovina; Braille guides and tactile maps at the Homeland Museum of Knjaževac, Serbia; and guided museum visits titled "It's forbidden not to touch" for blind people at the National Historical Museum in Tirana, Albania.

Practical workshops in art pottery at the Museum of Tešanj.

Outlook, transferability, and funding
Improved accessibility measures already being planned include production of 3D models of exhibits at Public Institution Zenica City Museum, Bosnia and Herzegovina, and touch tours and handling sessions at the National Historical Museum of Greece.

BMAG is funded by the Stavros Niarchos Foundation, a Greek-based philanthropic organization. The grant funds a larger programme implemented by Foundation Cultural Heritage without Borders in Bosnia and Herzegovina named "Crafting Access," which seeks to build capacity for heritage and craft-based inclusion across the Western Balkans. Around 10 per cent of the programme's €390,000 budget covering 2015 to 2018 is designated for BMAG.

FACTS & FIGURES

- 11 small inclusive projects funded since 2015.
- 150 persons with disabilities have attended accessible museum projects.

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see corresponding Life Story on page 48

Accessibility assessments of urban areas using 114 indicators

CANADA / SOCIÉTÉ LOGIQUE – PPAS AU AUDIT OF SAFE ACTIVE PEDESTRIAN POTENTIAL

Société Logique, a non-profit organization based in Montréal, Canada, that promotes Universal Design. has created PPAS AU, a paper-based assessment form to review the level of ease by which persons with disabilities, the elderly, and children can move through public spaces. PPAS AU has been used in six neighbourhoods in and around Montréal since the start of the initiative in 2015.

Problem targeted
The needs of the more vulnerable, including the elderly and persons with disabilities, are not always considered when making improvements to urban infrastructure. Reliable data on the accessibility features of public spaces are non-existent, incomplete, or difficult to access.

Solution, innovation, and impact
The Audit of Safe Active Pedestrian Potential (PPAS AU) is a user-friendly input form supported by a user guide and a one or two-day training workshop. Government bodies and NGOs use the form on-site to compile data about road junctions, pedestrian crossings, pavements, cycle paths, physical access to public transport, urban functions, buildings, the environment, the countryside, and urban safety. Users register information against 114 predefined objective indicators on how favourable the locations are for use and to identify elements that need correction. Users deposit their data into an online database, which any interested organization can access and use in their own assessments and analyses.

"Our tool promotes the creation of pedestrian infrastructures that are universally accessible, sustainable, and safe for all citizens."

Martine Laurin, B. Urb., Urban planning & Accessibility Consultant, Société Logique

Designed by Société Logique, PPAS AU stakeholders include the Office of Persons with Disabilities in Québec, a researcher and representative from the Integrated University Health and Social Services Centre, and a representative of the Direction de Santé

An analysis of any public space from the perspective of vulnerable pedestrians, using 114 indicators.

Publique de Montréal (Public Health Department). Their input was further coordinated with experts and groups supporting persons with disabilities.

PPAS AU has been used in six neighbourhoods in and around Montréal, five of which validated the features currently in place. In one case several corrections were made, such as repairing walkways, adding curbs, and marking pedestrian crossings.

Outlook, transferability, and funding
PPAS AU has been tested in a variety of environments, including a dense urban area with mixed public transport, a suburban commercial area, and suburban residential areas – strongly supporting the potential for further replication within Quebec and beyond.

Currently available in a printable paper-based format, development is underway to provide the tool on a mobile application in 2018.

Société Logique also offers a fee-based service for conducting a full review and reporting.

FACTS & FIGURES

- Five audits were completed in 2016 of neighbourhoods in and around Montreal.

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Planning and building accessible cities, simplified

CHILE / CORPORACION CIUDAD ACCESIBLE (CCA) – GRAPHIC ACCESSIBILITY GUIDES

Corporacion Ciudad Accesible (CCA), an NGO founded in 2000 and based in Santiago de Chile works to promote a city and spaces in which universal accessibility can bring autonomy to people with disabilities. In 2002 the organization began to publish graphic accessibility guides in the form of leaflets called "Accessible Thematic Files." By 2017, 13 Accessible Thematic Files have been published and are available as free downloads, supporting municipalities, planning institutions, and the public with the aim of accelerating the planning of accessible environments, buildings, and towns.

Problem targeted
Architects and designers, as well as users such as persons with disabilities and their families, do not have direct access to such tools as diagrams and illustrations that would enable them to adapt to or construct accessible environments. Further, available information on accessible building is often incomprehensible to the non-professional.

Solution, innovation, and impact
The Accessible Thematic Files are intended to bring current national standards and Universal Design topics for outdoor and built environments closer to everyone – both professionals and non-professionals – so that the accessibility measures in buildings and environments become more efficient. The files cover 13 topics, such as public places and parks, sports facilities, tourism facilities, pedestrians, etc. These guides simplify the existing and sometimes complicated building regulations, and work with pictures, pictograms, and illustrations to make information more accessible. CCA distributes the Accessible Thematic Files in the form of leaflets or they can be downloaded free of charge.

In Chile, the distribution of the Accessible Thematic Files have contributed to the introduction of specific laws on accessibility and the construction of better quality pavements and pedestrian crossings in municipalities, and have encouraged tourism companies to implement accessible tours and infrastructure.

The files cover 13 topics, such as public places and parks, sports facilities, tourism facilities, pedestrians, etc.

"Fifteen years ago when we built our house and wanted it to be accessible to our daughter, who is a wheelchair user, it was with the help of CCA that were we able to overcome architectural barriers."

Claudia Riquelme, architect and specialist in accessibility

Outlook, transferability, and funding
To reach more people, in 2015 the Accessible Thematic Files were compiled in the form of an updated and simplified version. They are available for downloading and reach around 5,000 visitors each month, some of which seek permission to redistribute them. The materials are also used in other Latin American countries, such as Argentina, Bolivia, and Peru.

The practice is very cost-efficient, as the digital format does not generate any costs beyond the maintenance of the website.

CCA is funded through consulting projects for privately owned companies or institutions that want to implement the accessibility guidelines.

FACTS & FIGURES

- Since 2015, pdf versions of the Accessible Thematic Files have been available for downloading at no charge.
- CCA has approximately 60,000 website visitors each year.

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see corresponding Life Story on page 49

Life Stories from Germany, Egypt, Ecuador, and Spain

THE STORY OF CHRISTINA, USER OF "INKLUSION MUSS LAUT SEIN!"

"I can still enjoy my passion for live Heavy Metal."

Germany

My name is Christina and I am 45 years young. I live in a small village close to Hamburg in northern Germany. Since 2008 I have been restricted to a wheelchair, which has changed the way I live my life. Or that is what I thought until I met a group of volunteers who have given me back my mobility to go almost anywhere and to enjoy the freedom of festivals and concerts!

They are called "Inklusion muss laut sein!" Thanks to them I can still enjoy my passion for live Heavy Metal! Attending the Wacken Festival is no longer a problem for me in a wheelchair. For "Inklusion muss laut sein!" it doesn't matter if it is raining and the ground is so wet that you are up to your knees in mud. The volunteers carry me in my wheelchair through the worst conditions to get me to the performances. They are the best group of people you could ever have helping you.

This year I was at a live gig that was on an old ship with no accessibility measures. Normally, it would not have been possible for a wheelchair user to attend, but as usual the volunteers from "Inklusion muss laut sein!" carried me onto the ship.

I get the help I need with even the smallest of things, like getting food or going to the toilet – the team is always there to help me. I can´t thank them enough. Without you, life would be only half so good.

See corresponding Practice on page 66

THE STORY OF BARB MOST, USER OF SOUTH AMERICA FOR ALL

"I went to Galapagos and Machu Picchu!"

United States – Ecuador/Peru

I am Barb Most, and my first contact with South America for All was a trip to Ecuador/Galapagos and, later, to Peru's Machu Picchu. I have a progressive neurodegenerative disease, very similar to Lou Gehrig's disease, called Multiple Systems Atrophy, a rare brain disorder. It affects mobility by paralysis, ataxia, and incoordination. I had the limited use of a walker during my trip to Ecuador, but for the Peru trip I was mostly limited to a wheelchair. Prior to my diagnosis, I was an active professional as a medical device auditor, which required travel both in the United States and abroad. I also had a busy personal life with my husband, son, and grandchildren, including hunting, fishing, and travelling. Then everything changed, but we decided we hadn't lost our sense of fun and adventure or of our love of family travel.

South America for All provided the support and framework to travel with mobility impairments by planning for accessible restaurants, transportation, and hotels. They use custom designed wheelchairs for ocean beaches, rainforests, and the stairways of Machu Picchu. South America for All made the impossible possible, and also gave my husband and me the courage and confidence to plan other trips with our family.

See corresponding Practice on page 63

THE STORY OF OMAR HESHAM, USER OF THE ENTALEQ APP

“I am not surprised by inaccessibility anymore.”

Cairo/Egypt

My name is Omar Hesham. I am a 24-year-old wheelchair user and a graduate of the Faculty of Commerce at Ain Shams University.
For many years, the possibility of my going out, whether to go to school or simply to hang-out with family and friends in various venues, such as restaurants, coffee shops, and malls, was very limited due to the lack of accessibility in many places. So, either I had to go to the one or two places that I knew for sure were accessible or I had to have someone always with me to help when needed.

All this changed in March 2016, when I received an invitation from the Helm Foundation to attend the launch event for their Entaleq application. This event was my first introduction to Helm, and thus to Entaleq, and after that I downloaded the application and started to use it.

Entaleq has helped me increase my independence to move around more freely by allowing me to know the degree of accessibility of various venues and locations beforehand, instead of being surprised by their inaccessibility once I have arrived. As a result, the app helps me determine which places I can visit on my own and which ones I need help in reaching and moving about freely.

Entaleq has been continuously developing and updating its services; and I am happy to know that it is spreading to other governorates, such as Luxor, not just Cairo and Giza, as this will help many more people with disabilities to go out more and lead a more independent life, just as it has enabled me.

See corresponding Practice on page 64

THE STORY OF MARTA GOMIS, SHOP ASSISTANT IN “FOR & FROM” TEMPE SHOP

“In our shop all persons with disabilities can make any purchase by themselves.”

Elche, Spain

My name is Marta Gomis, and I am a 27-year-old girl with Down syndrome. Since October 2010, I have been a shop assistant at the “For & From” Tempe shop in Elche. For me this job is like winning a prize, because I always wished to work in contact with people and in the world of fashion. Encouraged by my parents, I took a vocational training course on commerce. Afterwards, I came in contact with APSA Association, and with my trainers I improved my competences.

Now I have already been working in the shop for seven years, thanks to the opportunity that Tempe gave me. My colleagues and my trainer from APSA help me a lot, and together we solve the little challenges of every day.

I love to help our customers. To service people that I already know makes me especially proud and happy. The experience of these seven years has helped me to become self-confident and to perform my tasks efficiently.

Our shop is very unique since it is a fully accessible space, and is designed so that persons with disabilities like me can work with complete autonomy and independence. Since its opening, adaptations have been made in the shop so that any customer can come on their own. Today, persons with a physical or sensorial disability can make any purchase by themselves, and if they need help, I am ready to provide it!

See corresponding Practice on page 104

Outdoor and indoor orientation for people who are blind

CHILE / LAZARILLO TEC SPA

Founded in 2016 and based in Santiago, Chile, Lazarillo Tec SPA has developed an application that connects a visitor with location information, improving the autonomy of blind and visually impaired people. The LazarilloApp is a free application for iPhones (iOS) and Androids, and by mid-2017 it has already had more than 7,000 users in 14 countries.

Problem targeted
Visually impaired people can have major problems navigating around various open and enclosed spaces, making them more dependent on others and causing them to feel unsafe and unfamiliar in new places, as information on their surroundings is not accessible.

Solution, innovation, and impact
The application has been developed, together with its users, through a constant iteration process and a development team that includes visually impaired people. The app uses audible messages to provide users with information about their location, pointing out street junctions and reporting on places of interest, such as businesses, institutions, etc. If required, it can also guide the user to a specific point. Currently, the app is being used in 14 countries.

"The application allows us autonomy when moving through the city."

Prof. Marcela Abbott, a Lazarillo user

Together with its own databases, the LazarilloApp uses an open database, creating a virtual vision of surroundings. Lazarillo also operates a web platform, currently still limited to Chile, that allows the accessibility of enclosed spaces and the geo-referencing of open spaces, enabling companies and institutions to make their spaces more accessible.

Lazarillo has developed an interface that is highly accessible to visually impaired persons, who can use the application through screen readers available on Android and iOS, Talkback, and Voiceover.

Outlook, transferability, and funding
Currently the web platform, which includes an indoor navigation function, is still in Spanish and is limited to Chile, but the company is planning to expand its platform in 2018. Lazarillo seeks to use the platform to assist companies and institutions to make their spaces more accessible. Currently, it is developing an inclusive route at the Museum of Memory and Human Rights in Chile; and it is working with municipalities, hosting workshops to make their premises more accessible.

The application can be internationalized and easily replicated beyond the 14 countries that are currently using it. It works anywhere outdoors, using information extracted form Google maps, Foursquare, and open street-maps. However, the platform needs to be further developed so that they can be used indoors beyond Chile.

The application generates income and receives federal funds.

FACTS & FIGURES

In 2016 and 2018:

- 40,000 downloads and 7,000 active users.
- The application has improved the autonomy of 88 per cent of users who participated in a company survey.

Lazarilllo is used outdoors in 14 countries already; but the indoor database only in Chile so far.

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Archive and search engine for Asian sign languages

CHINA – HONG KONG / THE ASIAN SIGNBANK

The Asian SignBank (ASB) is a grant-funded project based in Hong Kong, China, documenting Asian sign languages to support sign language research and development through a searchable online database of over 6,000 signs. The project is a collaboration of deaf and hearing researchers jointly with the Centre for Sign Linguistics and Deaf Studies of the Chinese University of Hong Kong, and with support from the Nippon Foundation.

Problem targeted

In the past, sign language – being uniquely visual in nature – could not be recorded, transcribed, organized, and presented systematically. Moreover, there is a lack of information about sign language varieties in the Asia-Pacific, which creates a learning barrier for deaf persons in the region.

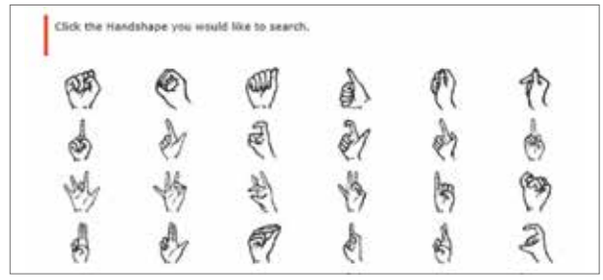
"The convenience and flexibility of the ASB allow me more time to prepare comprehensive teaching materials and design various class activities."

Laura Lesmana Wijaya, Director of Sign Language Center in Indonesia

Solution, innovation, and impact

The Asian SignBank is the first archive for sign language varieties in Asia and has been implemented to facilitate sign language teaching, development, and research. For each participating country of the Asia Pacific Sign Linguistics Research and Training Program – a regional research programme on sign linguistics involving tertiary institutions, government bodies, and deaf organizations within the Asia-Pacific region – signs are collected, filmed, analyzed, documented, and archived.

ASB has teams of deaf and hearing researchers working across five locations – Fiji, Hong Kong, Indonesia, Japan, Sri Lanka, and Viet Nam – who collect and film the sign languages of each country before documenting them in the database, along with information that allows easy searching. Users can search by entering a word or phrase or by clicking on a hand shape. The database then shows all meanings of the hand signal, lists in which country and region the sign is used, and provides a video of the sign and a description in both English and the native language.



One of the feautures of the ASB.

ASB's primary users are in China (Hong Kong and Macau), Indonesia, Japan, Singapore, South Korea, and Taiwan.

As of the end of 2016, ASB had recorded over 6,000 signs from five Asian languages and had received more than 15,000 web visits.

Outlook, transferability, and funding

ASB has set up sign language research units at partnering universities in Fiji, Indonesia, Japan, Myanmar, and Sri Lanka. The partnering universities have agreed to disseminate information on ASB within their countries to engage other universities in the process.

Since its commencement in 2007, 90 per cent of the project's funding has come from the Nippon Foundation, a Japanese foundation furthering social innovation in Japan and around the world. The remaining 10 per cent has come from research grants. From inception to the end of 2016 the overall budget for this project has been close to $500,000.

FACTS & FIGURES

Visits to the ASB website: 2,411 (2014), 9,994 (2015), 15,249 (2016), 18.146 (until Nov 2017)

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Video-sign language service throughout the country

COLOMBIA / FENASCOL – "CENTRO DE RELEVO" (RELAY SERVICE)

FENASCOL (National Association of the Deaf in Colombia) is an NGO founded in 1984 and based in Bogota, Colombia. In 2001 it started a project called "Centro de Relevo" (Relay Service), which enables telephone communication between deaf and hearing people by means of Colombian sign language interpreters. Following its initial launch in the capital city, the service is now offered nationwide, reaching some 18,000 deaf people over the last three years.

Problem targeted
Deaf people in Columbia were unable to access telephone communications, and there was a scarcity of interpreters, with only one interpreter available for every 239 hearing-impaired persons.

Solution, innovation, and impact
The FENASCOL project "Centro de Relevo" (Relay Service) allows hearing-impaired people to find an interpreter – via a text message or the Internet – who will provide them with free translation service over a fixed line or mobile phone within Colombia for a maximum of 15 minutes. This interpreter can also provide a variety of other communication services, such as for medical appointments, work-related consultations, legal formalities, and similar situations for a maximum of 30 minutes.

"I can communicate with my mother in a direct way, and I can't believe that thanks to the interpreter, she understands all that I want to say to her."

Damaris Esther Silvera, User

No sophisticated equipment is needed, as it is only necessary to be able to access the Internet or to use a mobile phone application designed for this purpose. The project is a public-private alliance in which the functions of the operator and the project leader are filled by hearing-impaired persons themselves. Using the technology, the project's 50 working interpreters can operate from home in all areas of the country.

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FACTS & FIGURES

- Beneficiaries 2009–2014: 9,900
- Beneficiaries 2015–2016: 8,130

The services are available every day of the week, including Sundays and holidays.

Since 2009 some 2 million free calls have been made and 15,000 online interpreting services have been provided. Over the last three years, some 18,000 deaf people have benefitted.

Outlook, transferability, and funding
There is a strategy in place for rolling-out the service to more regions and to provide ICT familiarization days to further increase the system's usage.

In 2013 the service was already replicated in Paraguay, and at present FENASCOL provides consultancy services to Ecuador, Guatemala, and Mexico. In 2017 the annual cost of the service was $827,500, with 95 per cent of the funds provided by the national government. A study is currently being carried out seeking to achieve future self-sustainability.

Since 2009, some 2 million calls have been made, and 15,000 online interpreting services have been provided.

see corresponding Life Story on page 49

Wheelchair-accessible tours in Amazonia, the Galapagos Islands, and Machu Picchu

ECUADOR / SOUTH AMERICA FOR ALL

Together with partners, South America for All (SAFA) – a travel company based in Ecuador – offers tours to various South America destinations that are accessible by wheelchair users. SAFA is now expanding to more countries in South America. In 2016, 300 wheelchair users booked tours.

Problems targeted
Being confronted with a wheelchair user who wanted to visit the Galapagos Islands, SAFA developed a dedicated programme for people with disabilities to enjoy prominent sites in South America.

Solution, innovation, and impact
SAFA has developed a systematic approach to evaluating potential tourist locations, starting with market research and a visit to the most emblematic sites and attractions at the destination. It then performs a disability check of the various locations (including hotels, restaurants, attractions, transport, etc.) and performs tests with off-road wheelchairs and other devices.

"If you want to swim, just let the staff know and they will attach the sling to the lift. I was somewhat surprised, but thrilled, that there was a pool lift."

Cory, guest in the Huasquila Amazon Lodge

Based on this research, SAFA offers and promotes its tours. SAFA has adapted basic equipment (for example, an off-road wheelchair, a manual lift for swimming pools, etc.) such that travellers with wheelchairs can participate even in jungle walks. The company considers every detail of their clients' physical limitations, and organizes their stay in the light of these. Furthermore, it helps to coordinate accessibility adaptations in some hotels and municipalities.

The programme began with the construction of an accessible Eco-Lodge in Amazonia, Ecuador, and extended to tours of the Galapagos Islands. Now SAFA has expanded to such places as Machu Picchu in Peru, the Iguazu waterfalls in Argentina and Brazil, and Ushuaya in Argentina. The increase in disabled tourism flows to such popular tourist attractions also

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Machu Picchu is ready for all of us now!

helps to raise awareness in the public and private sectors of the importance of inclusion. From 2015 to 2017, approximately 320 wheelchair users from the European Union, the United States, and Israel have paid visits to Amazonia and the Galapagos Islands, and since 2016 to Peru as well.

Outlook, transferability, and finance
In 2013 a consultation was held with the Ministry of Tourism to develop five accessible tourist sites in Ecuador. An assessment was made of the accessibility of tourist services on each of the sites and accessibility training was provided jointly with the Ministry.

In 2016 disabled tourism to Latin America had an annual growth rate between 5 and 10 per cent. In addition, it has been possible to increase the number of tourist destinations that are accessed by people with disabilities in Latin America mainly by adopting infrastructure. The project is self-sustaining, and sales are generated from the tours themselves, membership fees, and subscriptions.

FACTS & FIGURES

- Over the past three years some 320 wheelchair users have used the SAFA tour services.

see corresponding Life Story on page 58

Crowd-sourced reviews on 1,000 sites across Egypt

EGYPT / HELM – ENTELEQ APP

Helm ("Dream") is a non-profit organization based in Cairo, Egypt, that aims to promote the full inclusion of persons with disabilities. In 2015, Helm developed a mobile phone application and website called Entaleq. Both display the accessibility of over 1,000 venues across Egypt through crowd-sourced reviews; and the service is complemented by an expert consulting service for companies that wish to improve their accessibility. More than 1,000 people with disabilities are using Entaleq regularly.

Problem targeted

There is a lack of information in Egypt on which venues support which accessibility features. While Egypt does have accessibility standards and building codes relating to accessibility they are not uniformly implemented or effectively enforced, leading to difficulty in independent movement around the city.

Solution, innovation, and impact

The Entaleq application was developed in partnership with the Vodafone Egypt Foundation as a funding partner and Microsoft as a technology partner, and is available on Android and IOS smartphones. The app allows persons with physical disabilities, hearing impairments, and visual impairments to search for venues such as shops, restaurants, and public offices that provide the accessibility features that they require. Users can request a venue to be added, after which the Helm team reviews the venue and uploads it to the app, if approved. Other Entaleq users can then provide their own reviews and comments. Since its introduction in 2015, over 1,000 people have downloaded the app and over 700 venues have been reviewed, primarily in Cairo.

"Thanks to Entaleq, if I want to go to a supermarket or a café, I know beforehand if it has an elevator, a ramp, an accessible toilet, parking."

Omar Hesham, recent graduate of the Faculty of Commerce, Ain Shams University

Entaleq is complemented by Helm Inclusive Consulting, a social enterprise working alongside Helm and created by the Helm founders. Organizations can request help of Helm experts who conduct reviews of venues and who then provide advice and a detailed accessibility report on designing more inclusive solutions. To date, over 140 venues have implemented accessibility modifications such as ramps, Braille menus, and accessible bathrooms.

FACTS & FIGURES

- Over 1,000 sites reviewed for their accessibility.
- Over 140 venues have made accessibility modifications.

Outlook, transferability, and funding

Since 2015 the use of Entaleq has continue to grow and now includes sites beyond Greater Cairo, most notably in the tourist areas of Luxor and Hurghada. Helm is also planning a new update that will allow users to add venues themselves by answering a set of questions related to the accessibility of the venue.

The app is financed through grants and sponsorships. However, as traffic increases the app will move towards becoming self-sustaining with income based on commercial advertising. There has been international interest in the model from Australia, China, and Jordan.

Users can request venues to be added, and other users provide reviews and comments about accessibility features.

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see corresponding Life Story on page 59

Rating the accessibility of buildings using a well-known seal system

GERMANY / EUKOBA – BPASS

EUKOBA – the European Competence Centre for Accessibility, an independent service provider based in the province of North Rhine-Westphalia – has initiated BPASS, an accessibility pass for buildings that can be compared to the familiar energy pass (a broadly used seal to visualize the energy efficiency of electrical equipment, such as washing machines and refrigerators). Just like the energy pass, the BPASS uses colour scaling and a rating scale from A to G to inform people about the current level of accessibility of a building. Since 2016 some 30,000 persons have used the pilot app.

Problems targeted
Many types of impairments – including hearing, visual, and learning – are often not taken into consideration when designing products and services.

Solution, innovation, and impact
BPASS carries out accessibility assessments of objects and public spaces based on a 300-question checklist for 11 different beneficiary groups (e.g., children, families, the elderly, persons with mobility impairments, and wheelchair users). This comprehensive approach is important because a building might be accessible for wheelchair users, but not to blind people. The actual state of the building or public space is visualised with the help of a colour scheme and an alphabetical rating of A to G. Following the assessment, each participating municipality or private building owner receives an individual recommendation for action to improve the accessibility of an object or public space. Persons using the respective buildings or spaces can find the results online or via the app.

Outlook, transferability, and finance
BPASS is a licensed model, and in addition to Germany and the Netherlands (development partners) it is currently preparing another roll-out in Belgium and Turkey.

FACTS & FIGURES

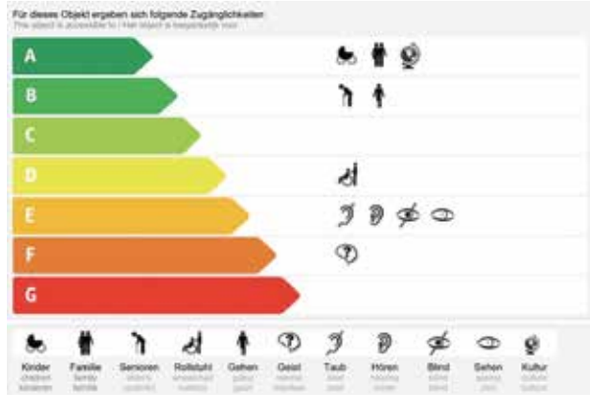
- 17 German municipalities participated in the pilot and evaluation phase.
- In addition to German, BPASS is already available in Dutch, English, French, Spanish, and Turkish.

BPASS already has a procedure in place to roll-out the online evaluation system in other countries; and it provides all new partner organizations with an adapted tool and on-site training.

The development costs of BPASS were supported by the Federal Ministry of Labour and Social Affairs in Germany. In The Netherlands the development of the app was promoted by the Limburg province.

There is an annual fee of €49.90 per year/per building. BPASS has kept the fee low so as to encourage the participation of communities and building owners; and in the longer run its aim is to make the project self-sustaining.

> "With BPASS, EUKOBA is at least ten years ahead of all other stakeholders in the area of accessibility."
>
> Hans-Joachim Fuchtel, Member, German Bundestag, and Parliamentary State Secretary of the Federal Ministry of Labour and Social Affairs



The BPASS rates every building from A to G, each for 11 different beneficiary groups.

Mr. Patrick DOHMEN
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Buddy service for jointly attending cultural events

GERMANY / “INKLUSION MUSS LAUT SEIN!” (INCLUSION MUST BE LOUD)

“Inklusion muss laut sein!” is a German non-profit organization founded in 2015 that runs a European-wide ‘buddy service’ for persons with disabilities. The organization originally developed from an online music magazine called New Metal Media, which provided information about accessible cultural events, such as concerts and music festivals, and is now part of “Inklusion muss laut sein.” The buddy service allows persons with disabilities to enjoy events accompanied by a like-minded companion. In 2016 approximately 450 people with various disabilities have used the service, and 500 in 2017

Problem targeted
Physical barriers often make it impossible for people with disabilities to participate in cultural events, such as concerts, festivals, theatre performances, and cinema visits.

Solution, innovation, and impact
“Inklusion muss laut sein” operates a European-wide network of volunteers who accompany persons with disabilities to various cultural events and provides information about accessible venues online. Thanks to the vast engagement of these volunteers, the service can be offered free of charge.

> “It is great that there are people like you, giving persons with disabilities the chance to take part in any kind of event with the feeling of belonging.”
>
> Joachim Arendt, beneficiary

Through the website www.i-m-l-s.com, persons with disabilities can make an appointment with a buddy in countries including Austria, Belgium, Germany, the Netherlands, and Switzerland, who will then accompany them to the chosen event. Before booking an appointment, the person using the service can inform herself or himself on the accessibility of the venue as well as find barrier-free accommodations and travel information, if needed.

“Inklusion muss laut sein!” also helps in building lasting relationships between persons with disabilities and their buddies by carefully matching the personalities and interests of the partners. The service also helps to increase awareness of the needs of people with disabilities on the part of event organizers, such as Germany’s “Wacken Open Air.”

FACTS & FIGURES

- The organization currently has a network of some 1,500 volunteers.
- In 2017 buddies accompanied 500 persons with disabilities.

Outlook, transferability, and funding
The project has already been replicated by the Disabled Persons Association Greiz (Behindertenverband Greiz) in Germany. The Austrian project Aeon Tickets – an online ticket shop specialising in meeting the needs of persons with disabilities – has approached “Inklusion muss laut sein” for advice and expertise.

Currently, volunteers make up 85 per cent of the work carried out in Germany, so the project is cost-efficient. In 2016 the organization received private donations of €5,000, in addition to €15,000 of the organization’s own funds.

Making Wacken accessible, no matter if sunshine or rain.

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see corresponding Life Story on page 58

Billing information and customer support in simple language

GERMANY / PIKSL LABORATORIES AND E.ON

PIKSL, based in Dusseldorf, Germany, is a social enterprise that uses the competences of people with and without disabilities to develop products and services for everyone. One of its services helps E.ON, a German utility company based in Essen, to better communicate with all of its customers. E.ON was looking for a barrier-free, intuitive service that can offer billing information in simple language and that can motivate these customers to interact with the company. In 2016 approximately 300 people with intellectual disabilities used this service during the pilot phase.

Problem targeted
Many people with and without disabilities have difficulty understanding their utility invoices, resulting in miscommunication, payment delays, and even the suspension of utility services.

Solution, innovation, and impact
The E.ON payment services helpline has been established to support customers who have difficulty with paying their bills and to offer these customers help in a way that is tailored to their needs and easy to understand. As a first step, an online portal was developed. Then printed media was created that gives advice to customers to avoid payment difficulties and offers help in case their utility services have been shut off. In addition, these flyers offer information about energy saving measures.

"We felt like partners on the same level, because our opinion was valued."

Christoph Wiche, PIKSL consultant with a disability

To make the website accessible and the printed material understandable for people with intellectual disabilities, E.ON hired PIKSL. PIKSL employs people with intellectual disabilities as consultants who understand the problems involved and who act as experts in improving accessibility. In co-working sessions with E.ON, the payment flyers and the payment support Internet page have been made accessible for people with intellectual disabilities by translating the text into clear language and an easily understandable layout. Currently, all online and printed materials are available in several languages.

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PIKSL supports E.ON in making their invoices and full communication better accessibile for all customers.

Outlook, transferability, and funding
PIKSL does not see any immediate growth opportunity with E.ON, but the translation of information into easy to understand language is in high demand in Germany and abroad. Therefore, there is a high potential that this practice will be replicated.

PIKSL has received a large donation from the SKala Initiative and is currently looking to recruit more talented people – both with and without disabilities. The goal is to open at least five new outlets throughout Germany over the next three years.

The practice is 100 per cent self-financed through the consulting fees that are billed to the various clients. PIKSL itself is currently preparing to scale-up all its activities by findings partners who would like to open a PIKSL outlet of their own.

FACTS & FIGURES

- 90 per cent of the users in the pilot phase have been content with the service.
- Energy shut downs have been decreased by 93 per cent since the introduction of the service.

Accessible equipment for children's playgrounds

HUNGARY – MAGIKME

MagikMe is a social enterprise founded by five parents of children with disabilities. Together with experts, the founders created a range of specially designed playground equipment that allows children with disabilities to get out of their pushchairs and wheelchairs and join in the play. To date, the equipment has been installed in more than 40 public and nursery playgrounds throughout Hungary.

Problems targeted
Families of children with disabilities often feel excluded from playgrounds, one of the most important socializing places for children and families. Average playgrounds might be accessible by wheelchair, but most of the equipment is not suitable for children with disabilities and does not allow them to play together with non-disabled peers.

Solution, innovation, and impact
MagikMe has been founded as a self-sustaining social business and generates profits, which are reinvested. It has developed equipment that is suitable for children with disabilities and that encourages children with and without disabilities to play together.

"There are no words to describe how happy I am seeing Jancsi playing with other children on the playground."

Fruzsina, mum of Jancsi (9)

Two products, a rocker and a sandbox, are already on the market. These are manufactured in Hungary, comply with EU standards, and have passed various safety tests. This equipment has been installed in 46 playgrounds, and MagikMe has plans to produce five to six additional products so as to offer an inclusive playground equipment package. Moreover, MagikMe provides advice on inclusion in play and actively advocates inclusion through its charity efforts and with the help of partner organizations.

The immediate impact of the playground equipment is that disabled children can play in an appropriate way. Currently, MagikMe conducts ad-hoc interviews with playground users to get feedback on its products and what improvements and changes are desired.

Krisztina Emrich
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FACTS & FIGURES

- The equipment has been installed in 46 playgrounds in Hungary.
- Two products, a rocket and a sandbox, are already on the market; more are in the pipeline.

Outlook, transferability, and finance
The MagikMe Inclusive Play has been growing since its start. A crowdfunding campaign allowed the company to finish the design of its first model – Pillango – a four-seat rocker. Through the revenues generated, the second model – Bucka – an elevated sandbox, was financed. As of mid-2017, the third product – a three-seated swing – is being designed. Approximately €20,000 has been invested, and during fiscal year 2015–2016 the company had revenues of €25,000.

MagikMe has plans to go international and to roll-out its products in many European countries. The venture is selling its products and consulting services to local governments and retailers of playground equipment. The company is also evaluating a licence model to accelerate growth.

Enjoying the fully accessible MagikMe sandbox, a product that is already on the market.

Easy access to news for persons with disabilities

INDIA / BARRIERBREAK – NEWZ HOOK

BarrierBreak is an Indian for-profit social enterprise based in Mumbai that works in the field of digital accessibility and assistive technology. The company has designed an app called Newz Hook, which provides easy access to news for persons with various disabilities. Since its start in 2016 until 2017, Newz Hook has gained 8,000 users who have downloaded the app and 20,000 users who read the news every day on the newzhook.com website.

Problem targeted

People with disabilities in India, as elsewhere, are often faced with challenges when it comes to listening or watching the news in an accessible format.

Solution, innovation, and impact

Newz Hook is a mobile news application designed to provide easy access to news for persons with hearing and visual impairments as well as intellectual disabilities. It also informs parents and special educators on innovations and information regarding the topic of disability.

The news is written in simple English and discusses such various topics as current affairs, technology, business, entertainment, sports, and health. The application supports the use of screen readers that read aloud the text displayed on a mobile phone, thus enabling the visually impaired to hear the news. The app also allows the user to have a high contrast view and to increase the size of the text, thus supporting senior citizens and people with a partial visual impairment.

Sign language video recording.

Outlook, transferability, and funding

BarrierBreak works with a team of accessibility experts and persons with disabilities to develop their products. Approximately 70 per cent of the total staff are persons with disabilities.

The app is currently used only in India, but BarrierBreak Solutions, Ltd. is planning to expand their market and to introduce the app in other countries by establishing local Newz Hook teams and developing local content. At present, a variety of business models are being explored to replicate the project internationally.

Currently, the Newz Hook project is fully funded by BarrierBreak. Going forward, Newz Hook aims to generate advertising-based revenues.

> "We need to start looking at people with disabilities as customers. Only then we can see inclusion happening."
>
> Ms. Shilpi Kapoor, Founder, BarrierBreak

To address the needs of persons with a hearing impairment, simple understandable language is used, e.g., a complex word like "infrastructure" is simplified as "roads and bridges." Additionally, Newz Hook includes sign language videos in which a reporter interprets the news. To enhance the user experience, more features are planned to be added in future.

Shilpi Kapoor
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FACTS & FIGURES

- Since 2016, some 8,000 users have downloaded the app and more than 10,000 users read the news every day on the newzhook.com website.
- 65 per cent of the Newz Hook's total staff are persons with disabilities.

Life Stories from India, Indonesia, and Ireland

THE STORY OF BHUPENDRA,
USER OF PLANET ABLED TRAVELS

"Travelling alone is possible now and transforms you."

Ahmadabad, India

I am Bhupendra and I lost my eye sight just two and a half years ago. Since then I have never traveled alone. The prospect of me travelling on my own with a group of strangers was unthinkable for my close ones, but Planet Abled gave me the opportunity to travel from Ahmadabad to Rishikesh as part of a carefully curated and customised tour that addressed my special needs. I would describe this experience as "liberating" as it enabled me to do what was thought to be impossible. I felt a strong bond with the other people on the trip, and the journey was a homecoming for me in the true sense of the term.

I would like to think of Planet Abled as more than just a leisure travel platform, as there is a profound inner transformation that happens when a disabled person travels. It imbues one with a rare sense of satisfaction and self-confidence. What makes it even better is that you travel with people from various walks of life: the mobility impaired, the hearing impaired, and people with no disabilities all travel together, which makes one more accommodative as an individual.

See corresponding Practice on page 74

THE STORY OF RAMU, NAMMA VAANI USER

"I am not only earning money, I found dignity."

Karnataka, India

I am Ramu, and I run a musical troupe along with my wife and my three brothers (who are also blind, like me). We've never received any formal education, but we have all learned music. We formed this troupe last year, when our father, a daily wage labourer, passed away and we were not able to run the household with the disability pension we received.

The music troupe has helped us to utilize the skills we'd developed over many years. However, we had no idea where we'd perform, so we would perform on roadsides, and people would pay us whatever they thought fit. We got only a few hundred rupees – not enough for all of us.

When I told my friend about this problem, he made me call Namma Vaani, and I knew I had found the right platform for me and my family. Through Namma Vaani, I heard stories of other persons with disabilities who had found solutions to overcome their barriers and had become financially independent, and I received advice on how my brothers and I could live a life of dignity and independence.

When I decided to record a clip about my troupe, offering to perform at events, I wasn't expecting much out of it. Imagine my surprise when we booked six events within one month – all through Namma Vaani! We earned 30,000 rupees, finally enough money to arrange for a critical operation for my niece, who was rapidly losing her eyesight.

I still post frequently on Namma Vaani. We have five more events lined up, and I'm sure we'll get many more in the future. I started this journey thinking that as long as I could earn money, I would be fine, but I found something much bigger – dignity. I now have a platform where I can speak and be heard, and I now actively seek out the opportunities I want, instead of waiting for opportunities to be given to me.

See corresponding Practice on page 72

THE STORY OF SYARIFAH, HEALTH WORKER USING CHILD DEVELOPMENT METHODS OF THE SURYAKANTI FOUNDATION

"Parents report that our pupils do well, some even ranking first in their class."

Tanjungsari, Indonesia

My name is Syarifah and I am a health cadre in the town of Tanjungsari, located in the city of Sumedang. For more than a decade I have served in Taman Posyandu, a health-post with a playgroup, witnessing how generations of toddlers have come and grown.

Like most women in our village, at first I knew only a little about child development. We believed that children would simply grow naturally. Then, during a health-post training, I joined a session about child development presented by the Suryakanti Foundation. We were taught that to thrive, children need more than just food, clothes, and sleep. We were taught about how we should foster the child's ability through play and that we must pay attention to any sign of developmental delay, so that we can then stimulate them to catch up. We are happy to receive reports from parents that our pupils do well. Some of them have ranked first in their class, some have excelled in sports. The important thing is that they all grew into happy, healthy, confident kids. We do this work voluntarily, but having the parents thanking us and seeing the children succeeding in school are simply heart-warming. We hope that child development training can be held more often, particularly to train new cadres as well as to refresh our own skills. Then we can prove that although the possibilities in rural areas are limited, our village babies can learn and succeed.

See corresponding Practice on page 76

THE STORY OF ROSMAWATI, EARTHQUAKE VICTIM AT PIDIE JAYA AND A FKM BKA TRAINEE

"I have memorized my evacuation map."

Pidie Jaya – Aceh, Indonesia

My name is Rosmawati, aged 45, and I am blind. As a woman who lives at home, I used to be a victim of any natural disaster that came upon us. Also, being on my own, when I was out of the house I would run into anything in front of me, such as walls and trees, and I would even fall into a trench and end up in the hospital. Therefore, in times of a disaster I would usually just stay in front of the house waiting to be evacuated by volunteers. But most people are busy evacuating their own family before they can think of helping us persons with disabilities. After attending the workshop held by FKM BKA, however, I now have more knowledge about how to evacuate myself in times of emergency. I have memorized my evacuation map, which way I should run, and how I can save myself in the event of an earthquake or tsunami. But more than that, now my neighbours have begun to understand my needs and whereabouts in the village, so that in case of disaster I will not be left alone. .

See corresponding Practice on page 75

THE STORY OF TONY MURRAY, SENIOR SOLUTION ARCHITECT

"Using a building without even having to consider accessibility challenges."

Dublin, Ireland

Being 100 per cent blind, when I went to work at my old building I encountered challenges associated with a lack of uniformity throughout the office's floor-to-floor layout, the limited number of accessibility affordances that were available, and the various facilities that has not been designed with usability for all in mind. The bank's new building at North Wall Quay, however, has removed all of these barriers to accessibility and usability. I enjoy the freedom to confidently navigate to any location in the building, as it has uniform floor plans as well as tactile navigation/orientation surfaces. The building includes accessibility features that seamlessly integrate with the common infrastructure, such as smart lifts, accessible doors, and a completely usable cashless system. An open and non-cluttered environment extends to all areas of the building, including the food service and conference/meeting areas. This enables me to access all of the building's facilities without having even to consider accessibility or usability challenges. To me, this is the greatest gauge of an environment's success in terms of inclusive design.

See corresponding Practice on page 78

Mobile phone-based information sharing service about accessible opportunities in rural India

INDIA – KARNATAKA / ENABLE INDIA – NAMMA VAANI

Enable India is a non-profit organization based in Bangalore, India, active in 28 Indian states and working towards economic independence and dignity for people with disabilities. The organization has developed a mobile phone-based information sharing service called Namma Vaani, which allows users to listen and respond to recorded voice messages from the disability community regarding education and employment opportunities, workplace solutions, enhanced life skills, and more.

Problems targeted
Persons with disabilities living in India's rural or marginalised areas have little or no access to information that could help improve their lives, such as finding suitable education and employment opportunities, new life skills, and government assistance schemes.

Solution, innovation, and impact
Namma Vaani (meaning "our voice") is a voice-based social network, where information is shared via mobile phones (no smartphone and web-access needed) for the disability community in rural and marginalised areas of India. NGOs, private companies, persons with disabilities, parents, and other enablers record and upload voice messages, which are then accessed by the system users. The content is managed centrally by Enable India staff, who moderate and publish the information to the service.

"I call Hamari Vaani at least seven to eight times a day, and I learn a lot from each and every call."

Kalicharan, a person with vision impairment, Madhya Pradesh

The information relates largely to employment opportunities, but also includes messages such as education and training opportunities, workplace, life skills, government schemes, and inspiring stories. This allows information to be spread easily, quickly, and at a low cost. Callers can also record a reply message and tell their own stories.

Use of the system has spread to all 30 districts of the Karnataka state in western India. As of mid-2017, Namma Vaani has received over 218,000 calls from 15,500 unique callers who have recorded over 12,000 inspiring personal stories.

Dipesh Sutariya
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Using mobile phones (no smartphones needed) to share, learn, and inform, moderated by the Namma Vaani staff.

Outlook, transferability, and finance
Namma Vaani was first launched in Kannada, the official language of the Karnataka state, and a Hindi version (Hamari Vaani) was introduced in mid-2017 in Hindi-language states.

Both Namma Vaani and Hamari Vaani receive corporate funding, which covers the cost of producing the two systems and their annual operation (approximately $50,000 per system). Corporate funding is provided as part of the requirement that businesses in India with annual revenue of over $1.5 million give 2 per cent of their profits to charitable causes.

The ongoing maintenance of the systems requires only basic interactive voice response technology plus a few employees to monitor and moderate messages.

FACTS & FIGURES

- As of mid-2017, Namma Vaani has received over 218,000 calls and 15,500 callers.
- Over 12,000 personal stories have been recorded, with 95 per cent of the content on the platform being user-generated.

see corresponding Life Story on page 70

Providing free adaptations and prosthetics for amputees and persons with mobility issues

INDIA / JAIPUR FOOT ORGANIZATION – BMVSS

The Jaipur Foot Organization – BMVSS (Bhagwan Mahaveer Viklang Sahayata Samiti) is an NGO headquartered in Jaipur, India, with 23 branches across the county. It is one of the world's largest organizations providing free prosthetic aids and appliances. BMVSS provides artificial limbs, calipers, wheelchairs, tricycles, and even economic assistance to the user's doorstep, particularly in rural areas in India as well as in 27 other countries.

Problem targeted
Persons with physical disabilities in the rural areas of low-income countries are often unable to access assistive aids either because they cannot travel to a hospital, which are mostly found in cities, or because they cannot afford the expensive assistive solutions.

Solution, innovation, and impact
The Jaipur Foot Organization identifies persons with mobility problems, with particular focus on poor amputees from rural areas. The organization provides a variety of assistance, such as artificial limbs, calipers, wheelchairs, and tricycles – all free of charge and delivered directly to the user. In addition, the organization holds over 50 field camps per year in India and around the world, whereby doctors and technicians travel with equipment and materials to provide on-the-spot fabrication and the fitting of prosthetic limbs and other aids to persons who may otherwise be unable to access help.

"When I lost my leg, I felt that my life was over. The Jaipur Foot has not just replaced my lost leg, it has given me my life back."

Mr. Sanjay Gupta,
a Jaipur Foot Organization BMVSS beneficiary

The organization has also designed its own prosthetic limbs, including the "Jaipur Foot" and the "Jaipur Knee" – hailed by Time magazine as one of the 50 best inventions for the world in 2009. The Jaipur Foot is an inexpensive, water-resistant, and quick to fit below-knee prosthetic. The Jaipur Knee is a nylon artificial knee joint developed in partnership with Stanford University that mimics the normal human walking pattern. Between 50,000 and 75,000 supportive aids are fitted or provided each year to persons with mobility problems.

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FACTS & FIGURES

- Prosthetics are provided free of charge.
- The organization specifically targets the poor living in rural areas.
- Some 60,000 persons with mobility issues are served each year.

Outlook, transferability, and funding
Since its start in India, the organization now has facilities in Afghanistan, Colombia, Fiji, Mauritius, Pakistan, and the Philippines. In addition, it has set up independent artificial limb fitting centres in Asia, Africa, and Latin America.

Jaipur Foot is funded largely by donations from private companies, banks, and individuals, plus funding from the Indian Ministry of Social Justice and Empowerment.

The Jaipur Foot is an inexpensive, water-resistant, and quick to fit below-knee prosthetic.

A ‘buddy’ programme for travelers with and without disabilities

INDIA / PLANET ABLED

Planet Abled is a social business based in Delhi, India, that provides accessible travel solutions and leisure excursions for people with various disabilities, tailored to their individual needs. It also mixes and matches people of different disabilities and offers a travel buddy programme, whereby a fellow traveler with no disability assists the traveler with a disability. Since its start in 2016, 200 travelers with disabilities have used the Planet Abled services.

Problem targeted
People with a particular disability often remain in their group and rarely interact with those with other disabilities. Furthermore, few people without a disability have ever interacted with a person with a disability.

Solution, innovation, and impact
Planet Abled provides customized tours and travel opportunities focussed on the client’s individual abilities and based on Universal Design principles. It connects people with different disabilities to each other, as well as to people without disabilities, by unifying them through travel and recreation. The individualized tours range from river rafting and romantic getaways for couples to excursions with children, including those with multiple disabilities.

“It was an awesome tour because of the excellent service and because we were able to explore tough places.”

Ushir Shah and Sonal of Ahemadabad, Gujarat, on their travels to Ooty, a hill station in south India

As an additional service, Planet Abled has created a travel buddy programme, whereby they train non-disabled travelers on how to assist a person with a disability. The company offers a dignified and empathetic service in which persons with disabilities and their travel buddies are paying customers. Planet Abled recruits their travelers through their website, where anyone can register to become a buddy, and through word-of-mouth.

As of mid-2017, 200 travelers with disabilities and 100 without disabilities have enjoyed Planet Abled’s inclusive tours.

Neha Arora
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River rafting or romantic getaways, everything is possible!

Outlook, transferability, and funding
Planet Abled has expanded its portfolio of offerings, and now includes local heritage tours, food tours, pottery workshops, poetry and karaoke sessions, solo travel tours, and customized group tours.

The company has approached various tourism institutions in India with the goal of making tourist areas more accessible, and local governments are supporting this effort. Planet Abled has not yet scaled-up to other countries, but other travel companies have since begun to offer accessibility travel in India, realizing the great potential of this business segment.

The social business is self-sustaining, as the tourists pay for their respective tours. If they are unable to pay, the company offers an option for third parties to gift the tours. Planet Abled also receives funding from civil society and draws on funds of the company founders, as needed.

FACTS & FIGURES

- 70 per cent of all clients are recurring customers.
- Planned Abled’s Customer Satisfaction Index is almost 100 per cent.

see corresponding Life Story on page 70

Inclusive evacuation strategies following a tsunami, earthquake, or volcano eruption

INDONESIA / FKM BKA IN ACEH PROVINCE

FKM BKA (Forum Komunikasi Masyarakat Berkebutuhan Khusus Aceh) is a cross-organizational forum of various disabled people organizations located in the in Aceh province, an especially tsunami and earthquake affected region in Indonesia. Founded in 2014, the organization has prepared inclusive disaster evacuation strategies by developing hazard and resource maps. From 2015 to 2017, FKM BKA trained 296 persons with disabilities, and 965 have participated in disaster evacuation simulations.

Problem targeted

Aceh province is a disaster-prone region of Indonesia that is particularly afflicted by tsunamis and earthquakes. Due to a lack of preparation and planning, as well as inaccessible facilities, services, and transportation systems, people with disabilities are more likely to be left behind or abandoned during disaster and emergency evacuations.

Solution, innovation, and impact

In collaboration with government bodies, local communities, the private sector, and civil society organizations, FKM BKA advocates for more inclusive disaster risk reduction (DRR) practices and ensures that persons with disabilities are not overlooked during disaster situations, such as tsunamis, earthquakes, and volcanic eruptions. To that end, it advocates that people with disabilities actively take part in all stages of the DRR processes, including disaster risk analysis and assessment by creating hazard and resource maps. They emphasize the special needs of persons with disabilities during and after a disaster situation, such as the provision of accessible drinking and sanitation resources, accessible temporary shelters, volunteers who can provide physical assistance, rehabilitation centres, and health and hospital services for injured victims.

> "This is the first time that I have attended an event like this, and it is very useful should we need to evacuate ourselves in the future."
>
> Delisa, 19, a university student whose leg was amputated due to an injury suffered from a tsunami

Syarifuddin Syarifuddin
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Three disaster evacuation simulations for a tsunami, an earthquake, and a volcanic eruption were organized.

From 2015 until October 2017, three disaster evacuation simulations for a tsunami, an earthquake, and a volcanic eruption were organized, with a total of 965 participants. In addition, 296 persons with disabilities have benefited from 11 disaster workshops and trainings.

Outlook, transferability, and funding

The efforts of FKM BKA have led to the local governments in three cities of Aceh province to develop and implement two new policies based on Articles 9 and 11 of the UN CRPD.

The model can be replicated and adapted to the characteristics of each region, and could also become a national and regional standard for areas facing similar threats and challenges.

FKM BKA is funded by the Disability Rights Fund and Disability Rights Advocacy Fund, as well as local governments and other local partners.

FACTS & FIGURES

- From 2015 to October 2017, 81 facilities in Aceh were tested for their feasibility as emergency shelters and their accessibility.

see corresponding Life Story on page 71

Child development monitoring for rural areas

INDONESIA / SURYAKANTI FOUNDATION CENTRE

Yayasan Suryakanti Bandung is a non-profit foundation that specializes in supporting infants and children at high risk for disability through early detection and intervention in rural areas of Indonesia. To that end, it established the Suryakanti Foundation Centre for the development of child potential and to provide clinical services and education for children with disabilities aged 0–8 years. From 2014 to 2016 approximately 18,000 patients were served.

Problem targeted

The first five years of life are crucial for a child's physical and cognitive development; thus, it is important to regularly record and monitor such developmental progress. Early detection and proper intervention of developmental disorder can reduce the severity of the condition and help children adapt in school and in life further on. Developmental screening is not part of a routine examination in Indonesia, however, especially in rural areas. Lack of professionals and the large population make it necessary to involve mothers and village health officials to improve child development monitoring.

"We are happy to receive reports from parents that our pupils do well. Some of them ranked 1st in their class, some achieved well in sports."

Syarifah, health worker

Solution, innovation, and impact

The Suryakanti Foundation Centre provides clinical services and education for young children with disabilities as well as parental instruction on how to care for children with a disability. In addition, the centre has developed innovative tools for early detection and intervention, particularly in rural areas.

One tool is the pictorial home-based developmental milestone chart, whereby parents and primary health workers are trained to monitor the development of every young child from birth to five years, including an interpretation guideline and a manual for follow-up intervention. The centre provides training for state health officials, who in turn train mothers on how to use the toolkit, and it asks for their feedback to improve the kit's usage. This pictorial developmental chart is later integrated into the Road to Health Card of each child to show the causal relationship between a child's nutritional status and developmental delay.

Outlook, transferability, and funding

The Road to Health Card was disseminated as part of an early childhood development initiative in more than 12 provinces and 22 districts across Indonesia. The pictorial milestone itself and the attached manual for early stimulation has been distributed; and so far about 3,000 women have been trained in the home-based developmental milestone programme for young children, sponsored by UNICEF. In 2015 the pictorial milestone was adapted as a policy on holistic integrated early childhood development, but the implementation is still limited.

The foundation believes that the various activities can be replicated by using networks and partnership and through professional associations. It has received interest from South Africa and other countries of South-East Asia to replicate the model.

FACTS & FIGURES

- Between 2014 and 2016 approximately 18,000 patients were served.
- Some 3,000 women have received developmental training.

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see corresponding Life Story on page 71

An app reviewing the accessibility of locations by user's "yes" and "no"

IRELAND / ACCESS EARTH

Access Earth is a start-up company based in Dublin, Ireland, that has created a user-centric website and app to engage and encourage the disability community to find, explore, and review their location of choice. Access Earth is now available for additional content contributions in 57 countries throughout the world. Based on an affilialte booking model, Access Earth estimates to be self-sustaining in 2019.

Problems targeted

Access Earth was founded by a social entrepreneur, Matt McCann, as a result of personal experience. Matt – who has cerebral palsy and uses a rollator – booked a hotel for a holiday at a hotel that advertised as "wheelchair accessible," but upon arriving at the hotel he discovered there were three steps to the hotel entrance, and Matt could not fit his rollator inside his room.

FACTS & FIGURES

- Access Earth is adding approximately 1,000 locations per month.
- It currently rates locations in 57 countries.

"Since my wife became a paraplegic, it has been very difficult to find places that we can go, even for a cup of coffee. Access Earth has made that easier for us – and it helps us discover new places."

James Gagnon, beneficiary

Solution, innovation, and impact

The Access Earth website and app offers users a very simple "yes" or "no" evaluation tool for questions such as: Is there accessible parking available? Is there a step-free entrance? Are the main doors wide enough for wheelchair access? Are there accessible restrooms?

Access Earth discovered that a simple yes or no answer provides much more clarity than an elaborate three-star rating. One of the main focuses of the website and the app is to create an element of ease in the rating process. This allows users to make a quick, yet valuable, rating of a venue with the option to add any comments, if considered necessary.

The company is partnering with disability support organizations in each country in which it operates to run "mapping events" in their communities. This integration of existing local expertise combined with updated practical accessibility information has enabled Access Earth to rate over 80,000 places worldwide, with the major focus on Australia, the United Kingdom, and the United States.

Outlook, transferability, and finance

Access Earth has been growing steadily, with around 1,000 new places being added every month. The company estimates that by the end of 2018 over 5,000 users per month will be active.

The main mechanism to replicate the practice is to run local mapping events. This has been trialled in 25 cities to date where the company has partnered with local organizations, worked with them to identify and map the most valuable areas of each city, and assisted with resources to help local organizations to bundle this information.

At present, Access Earth is operating on government grants. Going forward, however, it expects to receive revenues primarily from an affiliate booking model for hotels and restaurants once a critical mass of accessibility data has been reached.

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Building a national central bank on Universal Design principles

IRELAND / CENTRAL BANK OF IRELAND

The Central Bank of Ireland recently moved into a new office facility in Dublin, and a key objective was to ensure that the building met Universal Design principles and was fully accessible for all. Hundreds if not thousands of accessibility measures were addressed, and an Access Officer is continuously improving accessiblity with trainings of personnel and additional innovations.

Problem targeted
The Central Bank of Ireland recognized that its staff and visitors may have had difficulty accessing their buildings, their services, and the information that they provide.

Solution, innovation, and impact
By moving into a new state-of-the-art facility, the Central Bank of Ireland (CBI) has recognised that Universal Design needs to be addressed under three major headings:
(1) strategic policies, action plan, and services;
(2) design and build, incorporating UD; and
(3) operations (e.g., events, training, facility management). The many accessibility measures that were implemented include:

"The building at North Wall Quay has removed all of the barriers to accessibility and usability, I can now navigate my workplace fully independently."

Tony Murray, Senior Solution Architect

- Accessible parking and set-down areas
- Reception desks with split-level counters and hearing enhancement
- Waiting areas to accommodate diverse users
- Door design providing visual contrast, vision panels, easy operation, and generous width
- Large lifts with good signage, clear controls, light floor finishes, contrasting handrails, and half-height mirrors

Construction of the new CBI building has increased awareness among bank staff of the importance of embedding accessibility into the project and into all aspects of the bank's environment. By including staff with disabilities in focus groups and during the construction process, they had the opportunity to share their experiences and be a part of the reshaping of the bank.

The new building of the Central Bank of Ireland is based on Universal Design in strategic policies, design and build, and operations.

Outlook, transferability, and funding
Once the policies and action plan are in place, the bank intends to continue improving access to information and services.
Case studies of how the bank successfully delivered an accessible building could also be developed.

The CBI, including the accessibility of the building and its services, are funded by its ongoing operations as an independent central bank.

FACTS & FIGURES

- Reception desks with split-level counters and hearing enhancement.
- Door design providing visual contrast, vision panels, easy operation, and generous width.
- Large lifts with good signage, clear controls, light floor finishes, contrasting handrails, and half-height mirrors.

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see corresponding Life Story on page 71

TripAdvisor-style accessibility mapping of venues, transport, and festivals

IRELAND / MOBILITY MOJO

Mobility Mojo is a website and mobile application that lists the accessibility of venues, points of interest, events, and transportation for persons with mobility, visual, and hearing impairments in Ireland. The website includes a mixture of self-uploaded information from various establishments and from user reviews. Active since April 2016, Mobility Mojo lists almost 600 business and over 1000 services.

Problem targeted
Recent research by the European Commission shows that half of all people with a disability say they would travel more if they could be sure more accessible facilities were available.

Solution, innovation, and impact
The Mobility Mojo website was launched in April 2016 and lists accessibility of accommodation, amenities, parking, transport options, and events across Ireland. Establishments must initially upload their venue to the website and provide details on accessibility, based on Irish and EU standards – including Ireland's Government Building Regulations 2000 and the United Nations Enable's Design Manual for a Barrier Free Environment. There are also compulsory requirements for the venues to provide photos on specific parts of the buildings, such as the entrance, foyer, and bathrooms.

"We spend a lot of time about the city. Mobility Mojo is a major addition to our lifestyle."

Bernard, father of a six-year-old wheelchair user in Marino, Dublin.

Users can visit the website for free where they can search for the desired location they wish to visit, such as a town or street, and select from a menu of accommodations, transportation, restaurants, attractions, and parking facilities. Mobility Mojo will indicate for which user groups the venue is suitable. Users can view the basic accessibility features of each venue or find more detailed information and photos by signing up for free.

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FACTS & FIGURES

As of mid-2017, Mobility Mojo had:

- 590 business listings.
- 1,000 service listings.
- 350 users.

Once a user has visited a venue he or she can return to Mobility Mojo to rate, review, and recommend the venue to others.

Outlook, transferability, and funding
In 2018, Mobility Mojo is aiming to expand to include 1,500 listings, 2,400 services, and a registered user base of 500. The site has begun to include information on accessibility of festivals and events. There are plans to expand across Europe.

The development of the website and app was funded through grants and funding awards, including Enterprise Ireland's Competitive Start Fund and the Social Entrepreneurs of Ireland Elevator Award. The model is moving from one of grant support to a sustainable model by introducing a small monthly subscription fee for businesses to list their venue on the website.

Mobility Mojo will indicate for which user groups the venue is suitable.

A sucessful business model to train service providers in accessibility

ISRAEL / ACCESS ISRAEL

Access Israel, established in 1999, is an NGO headquartered in Tel Aviv that promotes accessibility and inclusion. The organization has developed a business model for training service providers regarding issues of accessibility, which includes educating staff about the challenges that persons with disabilities face and providing them with the know-how and practical skills regarding accessible services and solutions. More than 35,000 service providers have been trained since the start of the project in 2009.

Problem targeted
Every public service provider in Israel is required to provide its staff with accessible service training, but budgetary problems and lack of know-how lead many service providers to overlook this training.

Solution, innovation, and impact
Access Israel's trainings consist of a preparatory session to understand the accessibility conditions and all accessibility-related complaints within a particular organization, and it then offers customized training solutions. In this way, solutions for every budget can be found. All trainings are experiential and innovative, e.g., workshops in which participants experience what it is like to walk in a disabled person's shoes; and simulations of accessible services performed by disabled instructors, whereby service providers are given immediate and practical tools to provide accessible service. To follow-up the successful implementation of theses trainings, Access Israel sends people with disabilities as customers to check the level of improvement regarding accessibility and quality of service.

"Thanks to Access Israel we do our best to provide the customer accessible service beyond what the law requires."

Avi Yuktan, VP Service, Ikea Israel

In all trainings there are four pillars to remove the barriers and enable true integration:

- Increasing knowledge on disability, accessibility, and the specific accessibility arrangements within the organization.
- Breaking the glass wall: All activities include people with disabilities who speak for themselves, thus enabling participants to get to know the person behind the disability.
- Experiencing disabilities first-hand.
- Paying it forward: Providing tools to make a change in the services provided and the integration of people with disabilities possible.

FACTS & FIGURES

- At the start in 2014, there were 1–2 activities per week on average; in 2017 there are 1–2 activities per day, and sometimes more.

Outlook, transferability, and funding
Access Israel runs regular train-the-trainer events on a global scale, giving international organizations the opportunity to adopt and implement the business model in their respective countries.

In about two thirds of the cases the service providers pay for the training; and for one third Access Israel finds grants, governmental agencies, or ministries that help by subsidizing.

All trainings are experiential and innovative, e.g., workshops in which participants experience various kinds of disabilities.

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see corresponding Life Story on page 82

International online audio-book library in Arabic language

ISRAEL / ALMANARAH LIBRARY

AlManarah (meaning "lighthouse" in Arabic, reflecting the organization's commitment to disability rights) is a non-profit association for persons with disabilities in Israel's Arab-speaking population. The organization has developed the International Accessible Library, a free online resource containing a wide range of literature and educational materials in audio format. The library contains over 4,500 professionally recorded audio books in Arabic. It receives over 200,000 visits per month.

Problem targeted
Persons with print impairments in the Arabic-speaking population are often unable to gain access to literature and educational materials due to the significant lack of accessible audio books in the Arabic language.

Solution, innovation, and impact
The AlManarah International Accessible Library is a free online library providing audio books in the Arabic language, covering over 30 topics, including Arabic literature, world literature, self-development, children's books, and educational materials. It is the first accessible virtual library in the Arabic world.

"AlManarah's International Accessible Library is my ultimate solution for enjoying reading accessible books."

Abbass Abbass, AlManarah Director

The audio books are professionally recorded at AlManarah's studio and uploaded to the organization's website, where they can then be accessed via a mobile phone application or directly from the website itself. Over 4,500 books have been professionally recorded to date, providing access to over 50,000 hours of audio for persons with visual impairments or print disabilities.

The books are made available through Israeli law based on the Marrakesh Treaty, an Innovative Policy 2018 of the Zero Project (see *page 130*).

As of mid-2017 the Library has over 60,000 users and receives over 200,000 visits every month.

Outlook, transferability, and funding
AlManarah plans to recruit volunteers to record audio books to increase the speed of production of new material, with an overall aim of increasing the number of unique users accessing the resource by 50 per cent each year. In 2016 the Ministry of Education began to include the audio books in Arabic-speaking schools, and it has shown interest in including the mobile application as part of the educational curriculum for persons with print disabilities in schools across Israel.

The project is funded through donations from non-profit organizations working in Israel, along with grants from the Israeli National Insurance Institute and the Ministry of Culture and Sports, as well as from advertising on the website through Google AdWords.

AlManarah plans to transform the library from a non-profit project into a social business by moving to a small subscription-fee service to ensure long-term sustainability.

FACTS & FIGURES

- Some 2 million web visits since the establishment of the website in 2014.
- Over 4,500 books (50,000 hours) currently available in audio format.

Audio books are professionally recorded by the Almanarah studio and then uploaded to the website.

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see corresponding Life Story on page 83

Four Life Stories from Israel and one from Italy

THE STORY OF ILAN PEARLMAN, GALAPRO USER

"I have the full Broadway experience!"

Tel Aviv, Israel

My name is Ilan Pearlman and I am 35 years old. I am a software engineer at a small start-up in Tel Aviv. I am also a big fan of music, musicals, and any and all live shows or theatres. I am also deaf. My parents discovered I was deaf when I was four, but today I can partially hear with the assistance of hearing aids. Most people would find it surprising how much I enjoy music, being that I am hard of hearing. My love of music has also made me a fan of live concerts – while at a concert there is no need for me to wear headphones or struggle since I am always able to hear and enjoy.

My love of musical theatre stems from my mother. I've always enjoyed watching everyone on stage with all the costumes, music, and dancing. It is mesmerizing! However, I was very limited in this hobby because I always had to wait to see captioned performances or had to buy specific seats in order to be near where the captions appeared.

I learned about the GalaPro app at one of the main theatres in Tel Aviv one evening. I had planned to attend a captioned performance with a friend, but with GalaPro I was able to sit in any seat and follow along with my phone – it really changed and improved my entire experience.

My current job brings me to New York City quite often, and every time I visit I make sure to get myself to Broadway!

See corresponding Practice on page 85

THE STORY OF REVITAL SWIRSKI, MUNICIPALITY COUNCIL MEMBER TRAINED BY ACCESS ISRAEL

"The PR department has added the option of sending complaints by SMS."

Kiryat Bialik, Israel

My name is Revital Swirski-Shurtz. I am a council member in Kiryat Bialik, a municipality in northern Israel. As a person using a wheelchair, I am very much aware of the need for accessibility and am very active in promoting accessibility in my municipality.

My municipality employees have attended three accessibility training sessions conducted by Access Israel, in addition to their famous "Accessibility Tastes Dinner" for the management team.

Besides the fact that the employees were all very moved and excited by the training, one consequence has been that the Collection Department – which has a lot of interaction with the local residents – installed accessibility systems for the hearing and vision impaired, added accessible seats to the waiting area, and even installed an accessible watercooler. The employees have become much more sensitive to and aware of the needs of people with disabilities and say they now feel more confident to communicate with them.

Another innovation is that the Public Relations department has added the option of sending complaints by SMS and has provided a special customized service for people with disabilities. Further, all official ceremonies and events are now fully accessible. More and more residents with disabilities have started to feel comfortable in their interactions with the municipality, and so attend more events and deal more independently directly with the municipality.

See corresponding Practice on page 80

THE STORY OF ILANA GRUNBERG, MOTHER OF AVITAL AND USER OF FRIENDSHIP PARK

"I really feel that Friendship Park was the breakthrough for inclusion for Avital."

Israel

My name is Ilana Grunberg and I am the proud mother of seven-year-old twins Avital and Ayelet and their sister Maya, who is ten. Avital is very bright and tri-lingual (English, Hebrew, and Dutch), and in her free time she loves to paint, bake, and play with her friends at Friendship Park in the main city park in Ra'anana. She is known for her gorgeous smile, which captures everyone's heart. Avital also has cerebral palsy and uses a walker and a wheelchair. She attends second grade at a normal primary school and goes to Beit Issie Shapiro daily for therapeutic treatment and afternoon activities, where she meets with other children with cerebral palsy.

When Avital was in kindergarten she participated in one of Friendship Park's social and educational inclusion programmes. Together with her typically developing peers, she learned about different types of disabilities and how to make the environment accessible to children and adults with diverse disabilities. Avital participates in all the social community events that take place at Friendship Park, and what her experiences at the Park have taught her is that trying again, speaking to everyone, believing in the good in people, and believing in herself builds a community that is inclusive of everyone.

I really feel that Friendship Park was the breakthrough for inclusion for Avital. Through this community project we learned that we have many friends who join us in making our city a place for everyone.

See corresponding Practice on page 84

THE STORY OF SEREN, USER OF ALMANARAH'S INTERNATIONAL ACCESSIBLE LIBRARY

"Listening to audiobooks fills all of my free time."

Kfar Bara/Israel

My name is Seren and I am from Kfar Bara, a village in the Triangle Area of Israel. I am very happy to express my enormous gratitude to AlManarah and share with you my experience of how its International Accessible Library saved me emotionally. I used to work as a nurse until I unexpectedly developed an eye disease, which resulted in blindness. I was so frustrated and depressed with my new condition I even contemplated committing suicide. When I heard about the library from my brother, I became totally consumed with listening to audiobooks, which now fill all of my free time. The audio library of AlManarah has completely empowered me and enabled me to face the sudden loss of my vision.

See corresponding Practice on page 81

THE STORY OF GIULIO NARDONE, NATIONAL PRESIDENT OF ASSOCIAZIONE DISABILI VISIVI

"A vocal-tactile paving system for the independence of visually impaired people."

Italy

My name is Giulio Nardone, and I am blind. As the National President of the Italian Association of Visually Impaired People, the goal of my last 40 years' activity has been to increase the autonomy of visually impaired people in all circumstances of their lives. As a blind person, I soon learned to move on my own, recognizing obstacles through my white cane. The real problem, however, has always been to move around in wide-open areas without natural guides. In 2013, in cooperation with the company JKJ srl, we added to every tactile tile a Radio Frequency Tag (created by myself back in 1995) that can send vocal messages to my smartphone and headphones using a special white cane. Using this new version of tactile paving, called LVE System (Loges-Vet-Evolution), it is much easier for me to follow a path, to know the exact point where I am, the name of streets, the location of the several services on my route, and even the hours of operation. Before LVE, all this was impossible. This now allows me to be totally independent, as I do not need anyone to escort me in order to move freely within the city. Once the system spreads to stations, airports, hospitals, and public spaces, the problems of orientation and security of visually impaired people will be progressively solved.

See corresponding Practice on page 90

Replicating fully accessible and inclusive playgrounds throughout the country

ISRAEL / BEIT ISSIE SHAPIRO – FRIENDSHIP PARK

Beit Issie Shapiro (BIS) is a non-profit organization that develops and provides innovative therapies and services for children with disabilities and their families. BIS is not only a service provider but also a social change agent, aiming to scale-up its solutions through changing attitudes, training, and impacting legislation. Based in the city of Ra'anana, Israel, in 2006 the organization developed Friendship Park, the country's first accessible and inclusive playground, and it has developed a methodology to replicate them all over Israel. Today, the model has been replicated in 30 municipalities throughout the country.

Problem targeted
Israel was lacking accessible public play spaces that could give children with disabilities and their families the opportunity to enjoy leisure activities.

Solution, innovation, and impact
The playground was developed involving all relevant stakeholders, including people with disabilities, who followed each development stage to ensure that all perspectives and needs were addressed.

The uniqueness of Friendship Park and the key to its success is the integration of physical accessibility together with structured social accessibility. Physical accessibility is ensured by the topography of the playground itself, the restrooms, and each piece of equipment. Realizing that physical accessibility is not enough for true inclusion, however, BIS developed the playground as a platform for structuring social and educational activities that reach children with and without disabilities, their families, and teachers.

"I really feel that Friendship Park was the breakthrough for inclusion for Avital."

Ilana Grunberg, mother of Avital

The playground is open to spontaneous play, but also offers a variety of initiated activities, including inclusive get-togethers of families of children with and without disabilities, and inclusive holiday festivals.

Outlook, transferability, and funding
In 2010, BIS received a five-year grant to develop two additional playgrounds based on the Friendship Park model, and both now have active social programming and are under the responsibility of their respective municipalities. Since then, the model has been replicated in 30 municipalities throughout Israel.

Friendship Park playgrounds are not only about physical accessibility but are also platforms for structuring social and educational activities.

Since Friendship Park was developed with the intention to be replicated, the work process was documented thoroughly from start to finish. In addition, the model also takes cultural sensitivities into account. BIS has presented Friendship Park at the United Nations and international conferences, as well as shared the model in countries in Africa and South America and in the United Kingdom.

The initial establishment of Friendship Park was funded by the National Insurance Institute of Israel, the Welfare Ministry, the Ra'anana municipality, and foundations, totalling $1.26 million.

FACTS & FIGURES

- In 2009 the National Insurance Institute and an additional government fund agreed to provide funding to municipalities developing accessible playgrounds based on the Friendship Park model.

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see corresponding Life Story on page 83

Accessibility app for live shows

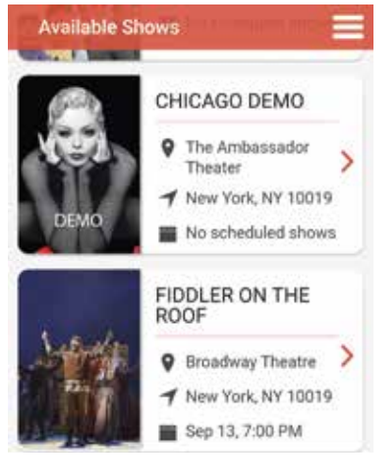
ISRAEL – UNITED STATES / GALA PROMPTER – GALAPRO APP

Gala Prompter, a start-up company from Herzelia, Israel, has developed an app called GalaPro, which provides synchronized accessibility and translation services for live theatre shows and movies. The GalaPro app allows persons with visual or hearing impairments to enjoy cultural events on any mobile device. The app was first implemented in several Broadway theatres in New York, and is in the process of expanding to all 23 theatres of the Shubert Organization throughout the United States.

Problem targeted
People with a hearing or visual impairment do not get an opportunity to enjoy live shows or cultural events in an optimal way since most venues cannot provide the necessary aid or equipment.

Solution, innovation, and impact
GalaPro provides synchronized accessibility and translation services for any live show or movie. Users can choose from subtitles, closed captioning, dubbing, audio description, and amplification as well as access show information, read the programme, watch a movie trailer, and buy tickets online – all in their own language. All services are provided in real-time using voice recognition technology. GalaPro can be used throughout the world on any mobile device.

Whereas existing technologies deal mostly with music recognition or voice, GalaPro uses a voice recognition technology (patent pending) that is first of its kind in providing live, synchronized translation directly to the users own mobile device.



GalaPro can be used throughout the world on any mobile device.

Outlook, transferability, and funding
The app is designed to work in many locations and is currently being used in Israel and the United States. GalaPro is in the process of negotiating agreements with additional clients on Broadway, in London's West End, and in other European cities. Moreover, the company has established a partnership with Sound Associates for distribution of the app in the United States and Canada.

The Broadway League in New York (see www.broadwayleague.com/home/ and www.theatreaccess.nyc/) has newly established accessibility standards to provide for all theatres and show productions, and the same process is expected to follow in London.

Gala Prompter is funded by private investors and by grants from the government of Israel. The business model is designed to be for profit, since venues pay for the services. All accessibility services are provided to the end users free of charge (closed captioning, amplification, and audio description).

"The accuracy and synchronicity of the slides make it easy to follow the story on stage."

Holly Cohen, user of GalaPro

During the pilot process on Broadway in New York in 2016 and 2017, hundreds of people with disabilities have used and tested the product and thousands more are expected to benefit from it. The company is in the process of officially launching the product in 17 Broadway theatres, and has finalized terms with the Shubert Group, the largest U.S. theatre chain, to be integrated into all of their 23 theatres.

FACTS & FIGURES.

- 2016: 500 users.
- 2017: approximately 3,000 downloads.

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see corresponding Life Story on page 82

Free technology-support helpline for persons who are blind or visually impaired

ISRAEL / MIGDAL OR

Migdal Or, based in Israel, offers support services for the blind and visually impaired. Operational for more than 60 years, Migdal Or has branches in Haifa, Tel Aviv, Jerusalem, and Be'er Sheva. Since 2014 the centre has offered a technology helpline that supports and gives guidance regarding assistive technology for users of all ages. More than 1,000 persons have used this service in 2016.

Problems targeted

In Israel the accessibility of technical support centres for people who are blind or visually impaired is very low, primarily due to a lack of knowledge and skills among customer service providers.

Solution, innovation, and impact

Clients at home, school, or work can contact the helpline via their smartphone, computer, or tablet. In this way they receive real-time instructions, primarily via phone, five days a week, addressing questions in four languages. The tech-support staff includes a manager and five specialists who are themselves blind or visually-impaired. The helpline operates nationwide out of a call centre, services are provided free of charge.

"This call centre is an achievement unlike any other for the visually impaired public. The fact that we have someone to trust in times of need warms our hearts and souls."

Andrey Leiber, user

The helpline promotes workplace inclusion by removing many technological barriers; and by getting the support they need, visually impaired employees demonstrate to their employers and colleagues that with the right support persons with a visual impairment can successfully integrate into the workplace. In cooperation with the Ministry of Education, Migdal Or promotes the awareness of school principals, teachers, parents, and peers that children with a visual impairment can learn and succeed in mainstream schools, given the right conditions.

Besides the helpline, Migdal Or supports other organizations in adapting online services and organizational web-based systems, offers system assessments, and provides consultation and training on how to make websites accessible. Moreover, the organization performs accessibility checks of workplace information systems for companies that seek to employ the visually impaired.

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FACTS & FIGURES

- Number of Beneficiaries: 432 (2014), 899 (2015), 1,200 (2016)

Outlook, transferability, and finance

Migdal Or is working to increase awareness among public services and private companies, and it includes new clients like the government's Information and Communications Technology Authority and the Israeli National Labour Federation.

The Ministry of Education and the Ministry of Social Affairs has funded the helpline, and various companies and organizations (e.g., the Central Library for the Blind, Orcam Technologies, and NVDA – a screen reading producer) fund the helpline service for users of their own specific website or product. The helpline is self-sustaining; it receives public funds and generates income from the project itself (earnings from sales, licensing, membership fees, and subscriptions).

Free technology-support from the experts.

Vision device to understand texts and identify objects

ISRAEL / ORCAM MYEYE

OrCam, a start-up company, was founded in 2010 in Jerusalem, Israel, with the mission to use advanced computer technology to help the visually impaired. OrCam MyEye is a portable, artificial vision device that allows vision-impaired people to understand text and identify people and objects. The device was released as a prototype in September 2013 and OrCam MyEye is currently available around the world in ten languages, with additional languages under development.

Problem targeted
Visually impaired people have great difficulty reading printed and digital text, and recognizing faces.

Solution, innovation, and impact
OrCam MyEye's vision technology assists people who are blind, visually impaired, or have conditions such as dyslexia, prosopagnosia, or aphasia, among others. The device enables users to instantly and discreetly read printed and digital text from any surface as well as to recognize faces, products, money notes, street signs, and much more.

"Orcam MyEye helps to give me all kinds of independence, so that I don't feel like a burden."

Kathryn Theisen, OrCam MyEye user from the United States

OrCam MyEye consists of two components: a head unit and a base unit. The head unit has a camera and a microphone and is mounted on the frame of a pair of eyeglasses. The box-like base unit contains the algorithms and processing components that give the device its functionality, and can be clipped to a belt or left to rest in a pocket. The head unit and base unit are connected via a cable.

With the point of the person's finger, the device instantly responds and will infer whether it needs to read, find an item, or recognize a product, depending on the environment. Moreover, OrCam MyEye can identify previously entered consumer products, credit cards, and even pre-loaded money notes to make shopping, dining, and paying quicker and easier.

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FACTS & FIGURES

- Some 10,000 individuals have benefited from the product since its start.
- MyEye is currently available in ten languages and others are in development.

Outlook, transferability, and funding
The company is keen on improving the functionality of the OrCam MyEye device, and the next generation will be wireless and feature a highly compact design. OrCam focuses on being directly responsive to the particular needs of their users. For example, many users requested that the device recognize the color of objects and read bar codes to identify products, and OrCam added these two to its latest software release.

OrCam MyEye devices are currently available around the world in ten languages, with additional languages in development.

OrCam is funded by business investors and is not yet profitable. Government-provided subsidies of the OrCam assistive technology device would positively influence global reach and would help to make the device more affordable. OrCam is currently exploring this challenge/goal in Germany and Austria.

The device enables users to read printed and digital text, recognize faces, products, money notes, street signs, etc.

see corresponding Life Story on page 118

Access to justice in Israel for people with complex communication difficulties

ISRAEL / THE RIGHT TO BE HEARD

In 2012 “The Right to Be Heard” project was established through the collaboration of the American Jewish Joint Distribution Committee (JDC), a relief organization based in New York, the Israeli Ministries for Social Welfare and Law, the Israeli National Insurance Institute, Israeli Police, plus the non-profits of the Haruv Institute and ISSAC Israel. The Right to Be Heard improves the access to justice for persons with communication disabilities and persons who use augmentative and alternative communication (AAC) who are involved in legal and judicial procedures as victims, witnesses, or suspects in Israel.

Problem targeted

Persons with disabilities are exposed to violence of all types, significantly more so than others. Previously, investigators could not communicate with people who use AAC – an umbrella term describing communication methods used to supplement or replace speech or writing for those with impairments in the production or comprehension of spoken or written language. It can include body language, communication boards with visual-graphic symbols or devices with symbols, words, letters, or icons that “speak” through produced speech.

FACTS & FIGURES

- 14 special investigators and 12 speech language pathologists were trained to use AAC.
- Over the past five years the Israeli police have directed 60 children and adults with complex communication disabilities to be investigated by the special investigators.

“It is just amazing to see a child that you didn’t think you can understand telling you what has happened.“

A special investigator

Solution, innovation, and impact

In 2005, Israel passed a regulation transferring the responsibility for investigating persons with intellectual and other developmental disabilities (victims, witnesses, and suspects) from the police to the Service for Investigating Minors and Special Interrogations at the Ministry of Social Affairs and Social Services. All project partners worked together to address the challenge of investigating people with complex communication difficulties by special investigators and speech language pathologists (SLPs).

In investigations where persons using AAC are involved, an SLP helps the investigator to gather information about the person involved, including the accessibility aids required, the person’s cognitive level and vocabulary, and the best ways of communication.

The special investigator then decides whether an investigation can be conducted and, if so, such an investigation is planned and carried out together with the SLP and the use of specially developed tools.

Outlook, transferability, and funding

“The Right to Be Heard” was developed as a five-year pilot project, with an annual budget of $150,000 per year. The pilot is financed by JDC, Harvuv Institute, the National Insurance Institute, and the Israeli Ministry of Social Welfare.

The organization is in touch with professionals from around the world who are interested in implementing the project in their countries.

Visual-graphic symbols that help to “speak” to investigators.

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Mapping the accessibility of vacation properties and itineraries

ITALY / EUROPE WITHOUT BARRIERS

Europe Without Barriers is an accommodation, tour information, and booking service catering mainly to persons with physical disabilities who wish to travel in Europe. The website covers bookings in seven countries, and in 2016 it provided services to approximately 7,800 people.

Problem targeted
Persons with disabilities face many barriers when planning to travel, such as a lack of information on which accommodations or tours provide which accessibility features. They also struggle with the travel chain: from leaving their home and accessing local and international connections, to arriving at their chosen destination and taking excursions.

Solution, innovation, and impact
Europe Without Barriers (EWB) is an information and booking service covering the whole tourism chain for persons with disabilities, providing accommodation and itineraries in Austria, Croatia, Germany, Italy, Poland, Slovenia, and Spain.

"We were particularly impressed by the quick response to our need of a personal assistant, due to an unexpected last hour situation, and for the efficiency of the services."

Feedback from Manuel, an EWB client from Portugal

EWB was created in 2000 by Associazione Italiana Sclerosi Multipla (AISM), the national association for multiple sclerosis headquartered in Genoa, which began by identifying and providing online information and bookings on accessible accommodations and itineraries in Italy's Tuscany and Umbria regions. In 2014 funding was successfully won from the EU COSME programme. EWB then began working with experts in accessible tourism (Accessible Tours Poland, City of Riccia, Centro Servizi Foligno, ENAT, and Christravel) to identify and provide accessible itineraries across Europe. As of late 2017 most accommodation and tours are provided via AISM's network, with a smaller proportion coming directly through the website.

EWB covers the whole travel chain in seven countries in Europe.

The bookings cater primarily to persons with reduced mobility, but are expanding to include itineraries for persons with visual and hearing impairments, as well as learning difficulties. In 2016 EWB provided services to over 7,800 persons with disabilities, including 180 days of organized vacations, 94 tours and excursions, over 3,500 hours of specialised assistance, and 700 hours of entertainment activities.

Outlook, transferability, and funding
EWB is looking to continue to grow by adding new accommodations and tours to its website.

EWB was initially funded through the support of Italian corporate foundations (e.g., Esselunga, a supermarket chain, and Monte dei Paschi de Siena, a bank), and grew internationally with the help of EU funding in 2014. The EU funding has since ceased and the focus has moved to creating a more complete social business model that can be self-sustaining based on income from the services provided.

FACTS & FIGURES

- Clients using the service in 2015: 6.804; in 2016: 7,831 (services of the main accommodation offered from April to October only)

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Tactile paths giving voice commands via a smart stick and a mobile phone app

ITALY / LVE SMART STICK SYSTEM

JKJ Srl, an Italian plastic fabrication company and Associazione Disabili Visivi Onlus (National Associations for Visually Impaired People) have developed the Loges Vet Evolution (LVE) tactile path system with integrated communication tags. The path helps persons with visual impairments to navigate safely by giving voice directions to the user's mobile phone about the path and surrounding spaces via a Bluetooth "Smart Stick." Over 450 areas (mostly in Italy) have had the technology installed plus two paths in Belgium and one in Canada.

Problems targeted
Persons with visual impairments have difficulties independently navigating public spaces and buildings, such as malls and hospitals, due to physical obstacles and a lack of accurate guidance information.

Solution, innovation, and impact
The LVE system is made up of tactile paving (textured surfaces that allow visually impaired users to feel the different patterns through their feet, indicating directions and dangers) integrated with radio frequency tags. The user holds a Bluetooth-equipped smart stick, which receives instructions from the radio tags when it touches the path. These instructions are then sent via Bluetooth to an app on the user's mobile phone, which reads out voice instructions, based on a downloadable map. The type of information provided is unlimited, but typically users are notified of intersections, crossings, the direction of travel, and points of interest along the route (e.g. "You are on the main street, and on your left is the Town Hall, which is open from 9 to 12").

"The LVE system is a drop filling the ocean of human knowledge, scratching the wall of indifference, and showing new routes towards the culture of autonomy."

Mariano Lervolino, General Manager, JKJ Srl

Many conventional tactile technologies use infrared or GPS technology that can be confused by rain or large amounts of people in the area. Other navigation technologies are based on beacons powered by batteries, which run the risk of discharge. The LVE tags require no batteries and can be installed in a range of surfaces, including cement, stone, and PVC.
JKJ Srl works with distribution partners and flooring technology companies to install the system. It is possible to install the paths in a range of scenarios, including public streets, public offices, hospitals, shopping centres, airports, museums, and more.

FACTS & FIGURES

- Number of areas that were newly installed: 70 (2014), 120 (2015), 150 (2016), 130 (2017, by October)

Outlook, transferability, and finance
The use of LVE technology has steadily increased and has also expanded to outside Italy, with two paths being installed in Brussels, Belgium, and one in Vaughan, Canada. The development of the product was carried out with ADV, a national non-profit organization funded through grants from civil society. The sales and expansion of the product is funded through the company as a commercial product.

The user holds a Bluetooth-equipped smart-stick that is connected to a smartphone; the tactile paving surfaces are integrated with radio frequency tags.

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see corresponding Life Story on page 83

Mobile application allowing deaf people to make phone calls without an interpreter

ITALY / PEDIUS

Pedius is an Italian social enterprise founded in 2013 as a 24/7 communication service that allows the deaf and hard of hearing to make phone calls. With the help of voice recognition software and other technologies, customers can have real-time conversations when they need to call service companies, book a table at their favorite restaurant, or talk to their doctor. From its initial launch in Italy, Pedius has expanded to many countries, including Australia, Brazil, Canada, France, Ireland, New Zealand, Spain, the United Kingdom, and the United States.

Problem targeted
Many existing services are generally only reachable by phone, hence they are not available to the deaf and hard of hearing. Currently, phone relay services for the deaf require an intermediary or interpreter, which can become very costly for the agencies that support these relay services and often are not available 24/7.

"You have changed the life of my deaf son, who is 17. It was one of the best Christmas gifts I ever received."

Mother of a beneficiary

Solution, innovation, and impact
Pedius is the first relay service for deaf people that does not requrie an interpreter. Users type or speak their message into their iPhone or Android device and Pedius sends it to the contact they choose, using either the user's own voice or an automated voice through speech synthesis. In real-time, users read the written translation of the recipient's answer through Pedius's voice recognition software on the display of their device.

Companies do not need to install any new hardware/software within existing switchboards, or modify current processes in any way. The operator can answer a Pedius call as any other and talk normally. Starting with TIM Ventures (Telecom Italia Mobile, a mobile telephone service provider, one of the companies that funded the project), other companies such as BNL (Banco Nazionale di Lavoro of the international banking group BNP Paribas) and AXA Assistance Italia Group have decided to make their services accessible through the implementation of Pedius.

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FACTS & FIGURES

- Pedius had 15,000 users by mid-2017.

Outlook, transferability, and funding
Beyond everyday use, Pedius has created synergies with municipalities such as Rome and with local police in Andria, Prato, Trieste, and elsewhere. Since the system can be embedded into any infrastructure, it has a high potential for continued growth.

In 2014, Pedius contributed to writing the Law on Innovative Startups at Social Vocation, thus paving the way for other social innovators. The company is also working with major telecommunication companies to create a standard in the industry that can be easily implemented in other countries.

Pedius is funded by businesses and venture capitalists such as TIM Ventures, Sistema Investimenti, Embed Capital, Principia SGR, and Invitalia Ventures. In 2014, Pedius received initial funding of €410,000 and an additional €1.4 million during a second funding round in 2016.

A relay service for deaf people that does not require an interpreter.

Sharing the accessibility information of points of interest using apps and crowd sourcing

JAPAN / MIRAIRO INC. – BMAPS APP

Mirairo Inc. is a private Japanese company based in Osaka that has developed Bmaps, a smartphone application with a screen reader function that collects and shares information on the accessibility of Japanese points of interest through crowd-sourced uploads. In less than year some 67,000 locations have been uploaded.

Problem targeted
Persons with disabilities often face difficulties in finding information on the accessibility features of facilities (restaurants, shops, public facilities, etc.), which is crucial for their mobility and comfort.

Solution, innovation, and impact
Mirairo works in the field of universal design and accessibility, and in 2016 it launched a smartphone application with a screen reader function for collecting and sharing information on the accessibility of points of interest for persons with diverse needs, including persons with disabilities, older persons, and tourists.

"With Bmaps, I can check the number of steps and the overall accessibility of facilities beforehand. The reviews by other users make me feel assured and encouraged to go out."

Mr. Issei Kizu, a Bmaps user

Bmaps can be downloaded for free on both Android and Apple and is available in Japanese, Spanish, and English. It offers a range of information, including an overall assessment of a location, height and number of steps, floor flatness, toilets, acceptance of service dogs, and more.

Users of the application can rank the locations and upload pictures, encouraging the establishments to increase their rating by improving accessibility. The app also includes a city competition feature whereby users can see which cities have more spots with accessibility information, thereby encouraging local governments to improve accessibility themselves.

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FACTS & FIGURES

- Currently, the app has more than 4,600 users as of November 2017.

Since April 2016 over 67,000 locations, mainly in Japan, have been uploaded by more than 4,600 users.

Outlook, transferability, and funding
Bmaps has been rolled-out in cities across Japan; and since it is based on Google Maps, it can be used anywhere in the world. Spots have been logged in China, France, Korea, India, Thailand, the United Kingdom, the United States, and Viet Nam.

Recently, the Cabinet Office of the Japanese Government has selected Bmaps as one of the trial projects to be tested in preparation for the 2020 Olympics/Paralympics in Tokyo.

Bmaps is supported financially by a grant from the Nippon Foundation, a Japan-based philanthropic organization that focuses on education, social welfare, and public health in over 100 countries. To increase sustainability of the application, Mirairo is working with private companies to gain sponsorship of the app.

Based on Google Maps, Android, and IOS, Bmaps can be used in any country in the world.

see corresponding Life Story on page 94

Connecting wheelchair-accessible maps with GPS tracking

JAPAN / PADM – WHEELOG!

The Patient Association for Distal Myopathies (PADM) is a Japanese non-profit organization based in Tokyo that has developed WheeLog! – an interactive wheelchair mobile application based on Google maps that combines accessibility information with GPS-tracked routes used by other wheelchair users. In the first month since release of the application in May 2017, WheelLog! had over 1,000 downloads and more than 1,700 location postings.

Problem targeted
Wheelchair users often find that trips to new or unknown locations can be daunting, requiring much research to discover an easy, safe, and suitable route or to learn if the location is indeed accessible.

Solution, innovation, and impact
PADM is a Japanese non-profit organization focusing on overcoming difficulties for persons with distal myopathies and other physical disabilities. WheeLog! is an interactive map application for use on smartphones that lists precise information on the accessibility of public spaces. Users can download the application on Android or Apple devices and find information grouped into ten categories: bathroom, elevator, parking, shopping, other, station, lodging, ramp, barrier, and their own "favorite." The application also allows users to request information on a specific location and to mark public places that are unsafe for wheelchair users.

The application is based on crowd-sourced information whereby users upload information and photos and rate the accessibility of a location that they have visited. WheeLog! is available in Japanese and English, and the rating and logging system is based on icons and pictures, allowing persons of other languages (such as tourists) to use the application. WheeLog! includes a special feature whereby routes taken by wheelchair users can be tracked by GPS and uploaded, providing a clear route of a barrier-free journey to a location that other users may wish to take.

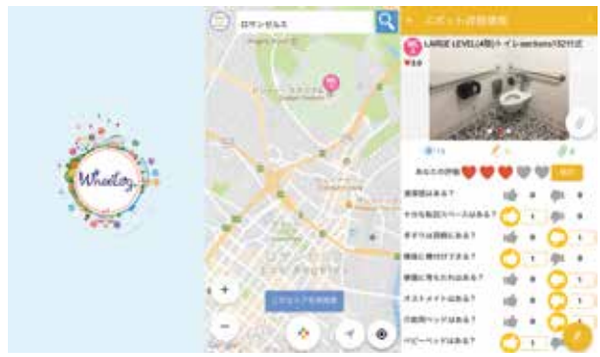
> "Thanks to 'WheeLog!', I could go on a trip by myself more easily than before and I also posted about leisure spots and restaurants which I could go to."
>
> Keiichiro, WheeLog! user

FACTS & FIGURES

- Over 3,200 users as of late 2017.
- Over 5,900 locations have been logged.

Outlook, transferability, and funding
The application has been used primarily in Japan, but users have posted to the app in over 15 countries, with active logging of locations including Taiwan, Hong Kong/China, and the United States. Given that the system is based on Google maps, this theoretically allows the accessibility of any place on Earth to be assessed.

Initial funding of the project was through a €390,000 (¥50 million) grant from the Google Impact Challenge. To be sustainable, the project requires further funding either from the public or from sponsoring corporations.



Crowd-sourced information, using Google maps and GPS tracking dta.

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Life Stories from Japan, Lebanon, Morocco, Mozambique, and Nepal

THE STORY OF WAEL GALMOUCH, USER OF THE INCLUSIVE TOURISM PROJECT IN LEBANON

"Now I can even invite some of my friends with disabilities to the beach."

Chaqra and Tyre Beach, south Lebanon

I am Wael Galmouch, and I have always been fond of going to the beach, where my friends and I would walk around and relax. Then I had my accident. I became physically disabled, and since the beach tents that we used to go to were not accessible for people with disabilities, I had to wait for the few occasions when my friends would carry me there. But it was not the same as before, because I had to stay in one spot. I could not reach the water, and we had to cut our trip short when I needed to use the bathroom.

Things changed, however, when the Lebanese Physical Handicapped Union initiated the "Inclusive Tourism" project in Lebanon and adapted tent number 19, the dock from the parking area to the water, in addition to providing an accessible bathroom and menu. Now I am back to visiting the beach as I used to do before my accident, and I can even invite some of my friends with disabilities to join me now that it has become available for all.

See corresponding Practice on page 96

THE STORY OF ISSEI KIZU, BMAPS USER

"Bmaps has enabled me to be out and about with peace of mind."

Tokyo, Japan

My name is Issei Kizu and I live in Tokyo. I have a congenital disease that makes my bones fragile; they are prone to break and bend easily. I use a lightweight electric wheelchair to go out. During my free time I take great pleasure in visiting new places and trying popular restaurants. As a wheelchair user, however, I used to give up trying to enter certain places because of steps, to my disappointment.

With Bmaps I can check the number of steps of the places I want to visit in advance, so now I don't have to wait until I reach my destination to find out if it is accessible or not. It is particularly helpful when I go out with another wheelchair user, as we wish to move around by ourselves without having to ask for assistance. The reviews by other users make me feel assured and encouraged to go out. I make it a rule to log the accessibility information of the places I could enter, hoping it will help others like me. Bmaps has enabled me to be out and about with peace of mind. As a suggestion, it would be even better if Bmaps users could communicate with each other on a common platform, as this kind of interactive feature would be very useful in exchanging more detailed information and connecting Bmaps users.

See corresponding Practice on page 92

THE STORY OF FATIMA MAGHZAZ, TEACHER

“I created an Arabic reading book in sign language.”

Berchid, Morocco

My name is Fatima Maghzaz, and I am a teacher at the Fatima Timouria School in the city of Berrchid, Morocco. I currently have ten deaf students in my class of various ages.

Working with deaf students is difficult but fascinating at the same time. Recently, I attended a teacher-training workshop in Rabat, Morocco, conducted by the Institute for Disabilities Research and Training, during which I learned a great deal and received a lot of information that will facilitate my work as a teacher. I put in a lot of effort and time developing teaching materials for my students. For example, I recently spent almost six months to create a little Arabic reading book, but when I saw the Dictionary and the Publisher in “Moroccan Sign Language Clip and Create” – the software developed by IDRT – I was astounded! If I had that software before, the work I did in six months could have been done in two or three weeks. But, as they say, “It is better late than never.” I can’t wait to get my copy of the next software version release and begin developing other books for my students.

I want to thank Dr. Corinne Vinopol, the Project Director, for her professionalism and kindness and all workshop presenters. You have made my task much easier!

See corresponding Practice on page 99

THE STORY OF JOAQUIM JOSE CHICHAVA, WELDER

“I want to be my own boss and not depend on others.”

Mozambique

My name is Joaquim José Chicava and I am 30 years old. I have a hearing impairment and I live alone. I started a course in civil metalworking in July 2016 and I graduated in December after six months of training. I was then invited to work as a paid intern in Young Africa’s Department of Metalwork for three months. At the end of my internship the head of Young Africa’s carpentry department contracted me to produce metal structures for furniture, such as school desks and chairs. Following this, I was contracted again by the head of the department to build porches for a church and for several homes. The money I earn from this work allows me to buy food, clothing, and to build my own home. It also allows me to help my maternal aunt and my grandmother. I am currently working on the production of the metal structures for 30 chairs suitable for wheelchair users.

With the work I am doing at the moment I am perfecting the skills and knowledge I acquired during my time at the Young Africa training centre. Now that I have these skills, my dream is to open my own business to provide services in the field of welding, such as the production of metal gates, ovens, windows, sheds, and other structures.

See corresponding Practice on page 98

THE STORY OF SUPRIYA LIMBU (12), USER OF INSPIRE2CARE

“Now I can move around in my house on my own.”

Nepal

My name is Supriya Limbu and I live in eastern Nepal. I am a 12-year-old girl with cerebral palsy diplegia. My house is on a remote hill, adding more challenges in my day-to-day living.

I had a dream to go to school like other children, but because of my disability and difficult geographical terrain, it remained only a dream. I was in need of support from my family members even to go to my kitchen and to use the toilet. When the Inspire2Care programme of the Karuna Foundation was introduced in my village, it opened ways to fulfil my dream. The programme helped my family to modify my living surroundings, including the construction of ramps from my room to the kitchen, front yard, and toilet. And the provision of a wheelchair has changed my daily living tremendously!
I am also going to school now, but my grandfather has to carry me on his back for more than half an hour each way as there is no road where a wheelchair can pass. I am growing and my body is changing, thus carrying me is becoming a challenge. In school, however, I have received a special chair, though I still need support to go to the toilet. Many friends come to speak with me and to offer help, and the teachers are friendly too!

I am happy with all these possibilities and changes.

See corresponding Practice on page 100

Two-year inclusive tourism project for tourist sites

LEBANON / THE LEBANESE PHYSICAL HANDICAPPED UNION AND ENAT

The Lebanese Physical Handicapped Union (LPHU), founded in 1981, is an advocacy organization for people with disabilities in the capital city of Beirut. Together with the European Network of Accessible Tourism (ENAT), a non-profit association of tourism organizations located in Brussels, Belgium, LPHU started the "Inclusive Tourism Project" in 2016 – a two-year initiative incorporating accessibility and inclusion standards into four famous touristic sites in Lebanon. This includes such accessibility measures as creating ramps and providing Brail and audio support for persons with various disabilities

Problem targeted
Lebanon's tourism sector still does not comply with standards of accessibility for persons with disabilities.

Solution, innovation, and impact
The Inclusive Tourism Project improves accessibility and inclusion standards at four popular tourist sites: the Old Market of Byblos City, the beach of Tyr, the Shouf Biosphere Reserve and guest house, and the historic fort of Baalbek. The project combines architectural modules, training workshops for staff, and technical consultations to integrate accessibility on the sites. Actions include building ramps, improving access, and creating Brail and audio support for persons with various disabilities.

"The accommodation of the public beach tent in Tyre gave me the joy of my favourite sport again – swimming independently."

Souheil, an amputee and Inclusive Tourism Project beneficiary

Another objective of the project is to allow persons with disabilities to participate as employees and business entrepreneurs. This resulted in 50 people receiving jobs with tourism companies and 30 securing material support for launching self-employment projects in the field of tourism, such as establishing beach kiosks for selling food and drinks.

The project's first year has had a positive impact on the commitment of public and private-sector stakeholders towards supporting the adoption of an inclusive tourism policy, and has resulted in the endorsement of the Beirut Declaration as the first national document on inclusive tourism in Lebanon.

FACTS & FIGURES

- 80 people with disabilities have jobs or have received support for self-employment within the tourism industry.

Outlook, transferability, and funding
The project is in the process of being replicated by the Ministry of Tourism in Lebanon. Consultations with LPHU are taking place to benefit from the project's modules and strategies for adopting inclusive tourism standards in other regions around the country, starting with the renovation of other sites in the ancient city of Baalbek.

The Inclusive Tourism Project is funded by civil society and within the framework of the AFKAR 3 programme – an EU-funded programme. All produced modules, training workshops, and technical consultations are currently offered for free, and LPHU is evaluating strategies to make the project self-sustainable soon.

Actions include building ramps and improving access.

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see corresponding Life Story on page 94

Private company joins a university in training students in web accessibility

MEXICO / HEARCOLORS – THE WEB ACCESSIBILITY LABORATORIES

HearColors, a web accessibility company based in Mexico City, has worked with Universidad Nacional Autónoma de México (UNAM) to develop Los Laboratorios de Accesibilidad Web ("Web Accessibility Laboratories") – a project for improving web accessibility expertise in Latin America. The approach is based on a training course and the development of web accessibility assessment tools. Since the start of the programme in 2015, 150 programmers and designers have passed the course.

Problem targeted
People with hearing, sight, or intellectual impairments are often unable to obtain information or undertake simple online tasks, such as booking flights or ordering shopping, due to websites that are not designed in an accessible way.

Solution, innovation, and impact
Los Laboratorios de Accesibilidad Web has been created by HearColors, a private business based in Mexico City, and UNAM to improve the knowledge and capacity of web designers and programmers in Mexico and across Latin America regarding the issue of accessibility. The project is centred around a theory-based university training course, with additional hands-on training in which real-life assessments and advice improve the accessibility of existing websites.

"The best way to change the world is by creating sensible and empathic professionals."

Monica Duhem, CEO, HearColors

UNAM provides the facilities for the course plus trainers for the various web formats (HTML, CSS, etc.), while HearColors provides the training in accessibility.

Los Laboratorios de Accesibilidad has certified over 150 programmers and designers in web accessibility over the 112-hour theory course.

Outlook, transferability, and funding
New web accessibility laboratories are being set up in partnership with universities in Guadalajara, where 30 developers have begun training in December 2017;

Students focus on private companies as well as the Mexican Government's web pages.

and in San José, Costa Rica, where a small number of staff have been trained in web accessibility.

Initial discussions have begun on opening a further lab in the Mexican city of Puebla. HearColors is also working with the Mexican Ministry of Education and the International Association of Accessibility Professionals to make the certification nationally and internationally recognized.

The first laboratories were funded by the Instituto Tecnológico Autónomo de México (Mexican Autonomous Institute of Technology), HearColors, and Microsoft, which provided Office365 and an Azure web hosting platform for free.

As the model moves towards providing services for private companies and the Mexican Government, the laboratories will be self-sustaining based on chargeable services.

FACTS & FIGURES

- 150 persons have been trained in web accessibility.
- Students undergo 112 hours of formal classroom training.

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Making training centres accessible

MOZAMBIQUE / YOUNG AFRICA

Young Africa is a confederation of independently, locally registered affiliated organizations that runs skills centres, youth (self-)employment programmes, and community activities in their respective branches in Botswana, Mozambique, Namibia, Zambia, and Zimbabwe. In 2015, Young Africa Mozambique started a project in the province of Sofala to reduce the high unemployment rate among young people with disabilities. The project focuses on making training and services in the education sector accessible by building two accessible student hostels and adapting student hostels to meet the needs of this target group, thus establishing the first accessible vocational training centre in Mozambique.

Problem targeted
Technical and vocational education and training centres in Mozambique are not accessible to young people with disabilities, and the training does not meet their learning needs.

Solution, innovation, and impact
With the advice of Light for the World, Young Africa Mozambique has adapted their already existing training schedules in agriculture, dressmaking, welding, and culinary arts by reducing the barriers that have kept young people with disabilities from studying alongside their peers. To overcome physical inaccessibility, two new fully accessible hostels were constructed to accommodate 128 young people, and one existing hostel was renovated to meet the new requirements. The training centres now include a new accessible cafeteria, classrooms equipped with accessible furniture, lowered door locks and light switches for wheelchair users, and accessible lavatories. Moreover, accessibility audits were established by Light for the World to ensure that there is a monitoring process in place.

> "After the training we can see how some young persons are being employed and how others start their own businesses."
>
> Erasmo Victor Ricardo, sign language interpreter

Outlook, transferability, and funding
The project is unique in Mozambique as it is the first accessible vocational training centre in the country. Young Africa has been accredited by the government as an official technical and vocational training institution, given that public training institutions do not yet offer accessible training infrastructures.

To further spread the business model, Young Africa Mozambique and Light for the World have participated in an exchange visit and conference in Rwanda on inclusive economic empowerment.

Light for the World plans to replicate the practice in government training centres in Mozambique, none of which are currently accessible. GIZ (Gesellschaft für Internationale Zusammenarbeit, Germany) in Namibia is among the organizations that have shown an interest as well.

The project has received funding from the European Union (€1.5 million), the Austrian Development Agency (€85,000), and by the implementing organization Light for the World itself (€10,000).

Classrooms are equipped with accessible furniture.

FACTS & FIGURES

- Since 2015, more than 190 young persons with disabilities have enrolled in Young Africa Mozambique for vocational training,
- 167 have graduated and 23 more trainees are expected to graduate by the end of 2017.

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see corresponding Life Story on page 95

Improving deaf children's reading through technology

MOROCCO / INSTITUTE FOR DISABILITIES RESEARCH AND TRAINING – ALL CHILDREN READING

The Institute for Disabilities Research and Training, Inc. (IDRT) – a U.S. small business based in Wheaton, Maryland – has launched a project called "All Children Reading" designed to provide access to education for deaf children throughout Morocco. The United States Agency for International Development (USAID) has funded the project for three years with additional support from other organizations. It includes documentation of Moroccan Sign Language (MSL), development of assistive software, creation of an Early Grade Reading and Sign Language Assessment for young deaf children, and teacher training. The pilot phase during 2016 has targeted 200 deaf children nationwide.

Problems targeted
Moroccan children who are deaf or hard of hearing face major obstacles; approximately 85 per cent do not attend school and many, especially girls, are kept at home. In addition, Moroccan Sign Language is only poorly documented and used.

Solution, innovation, and impact
IDRT put together an international team of Arabic linguists; native signers; specialist in the assessment of deaf children; Ministry of Education, USAID, and World Vision representatives; Early Grade Reading Assessment (EGRA) adaptation specialists; deaf educators; interpreters (English, Arabic, MSL); and local officials.

"This software will help me a lot to teach deaf children through games, concepts, graphics, and videos."

Maria, an educator at Amal Deaf Association in Fez, Morocco

IDRT has developed software that helps teachers and parents easily create and publish MSL-supported educational materials, instead of working with handwritten notes. Furthermore, a sign language-friendly Early Grade Reading and Sign Language Assessment has been created to make evaluations standardized and comparable. Assistive technology software enables users to create their own MSL instructional materials, and online software for gathering regional videotaped sign language variations has been introduced.
The project has now documented over 2,000 MSL signs, created and distributed the software nationwide, and has linked deaf associations/schools for better cooperation.

Children seeing the training software for the first time.

Outlook, transferability, and finance
IDRT is working with ten schools for the deaf across the country. Most of the teachers and administrators within each school attend the trainings and have received the developed software for free as well as computers, printers, and projectors. This teacher training has radically altered pedagogical strategies. As a result, many schools throughout the country now ask for the software, and distribution and teacher training are currently underway.

The project is funded by USAID with an in-kind contribution by IDRT. Project staff and other stakeholders within Morocco have volunteered their time.

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FACTS & FIGURES

- Since 2016, 204 pupils and 24 teachers throughout Morocco have been trained.

see corresponding Life Story on page 95

Disability-inclusive communities in remote areas

NEPAL / KARUNA FOUNDATION – INSPIRE2CARE

The Inspire2Care model developed by the Karuna Foundation, a charitable foundation based in the Netherlands, creates disability-inclusive communities in rural areas of Nepal, such as Rasuwa, Ilam, and Sunsari as well as in the capital Kathmandu. Physical accessibility, Inclusive Education, access to treatment and assistive devices, social empowerment, and the creation of livelihoods are its major areas of intervention. Since 2015 approximately 5,000 persons with disabilities have benefitted.

Problem targeted
Nepal has a progressive law guaranteeing accessible infrastructure, information, education, and health care for people with disabilities, but the country does not consistently enforce this or other laws concerning accessibility.

Solution, innovation, and impact
The Inspire2Care model is based on community awareness and mobilization. The community owns the model's concept and takes a leadership role in implementing disability-friendly structures by utilizing resources provided by local government authorities.

Thirty accessible schools were econstructed and adapted in 30 villages as well as 15 health centres in 15 villages.

"I feel like flying on my wheels towards my dream."

Supriya Limbu, a 12-year-old girl with cerebral palsy

Since 2015, Inspire2Care has reconstructed and adapted 30 accessible schools in 30 villages and 15 health centres in 15 villages, has constructed disability-friendly public toilets and a disability-friendly day care centre for children with mental disabilities, and has provided affordable accommodations for 58 persons with disabilities. Moreover, Karuna influences decision-makers and public construction companies at the local level, and explains the importance of disability-accessible structures and how to translate this into practice. Karuna is keen that most facilities and buildings are built within existing local government plans and guidelines and with local resources.

Outlook, transferability, and funding
The process of nominating accessibility projects has been replicated in the entire district of Ilam (48 villages), as well as some other surrounding villages. Going forward, Karuna has plans to expand the programme throughout the entire country within the next ten years. Karuna believes that Inspire2Care has the potential to be replicated in any international setting similar to Nepal; and it has shown that with minor changes and using local resources and people, disability-friendly infrastructures can be constructed. More importantly, the cultivation of community ownership in establishing disability-friendly and accessible structures strengthens the potential to be replicated on a wider scale.

Karuna adopts the principle of cost sharing with the community, which means that part of the funding is locally generated in addition to funds obtained from other partners. The total budget employed for the nominated practice in 2016 and 2017 was approximately €800,000.

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FACTS & FIGURES

As of 2017, 4,917 persons with disabilities have benefited from the newly accessible structures. These include:

- Health facilities: 1,138
- Schools: 323
- Public toilets: 3,285
- Day care centres: 13
- Other: 158

see corresponding Life Story on page 95

Inclusive post-earthquake reconstruction

NEPAL / ACTION ON DISABILITY RIGHTS AND DEVELOPMENT (ADRAD)

Action on Disability Rights and Development (ADRAD) is an NGO located in Kathmandu. The "Inclusive Post-Earthquake Reconstruction: Public Building Safe and Accessible for All," initiated by ADRAD, is a project designed to ensure inclusive post-disaster reconstruction and reform in the 14 most affected areas of Kathmandu. As part of the project, accessibility standards were improved by the government, the parliament amended relevant laws to bring them in line with the UN CRPD, and DPOs trained hundreds of persons with disabilities in mapping and monitoring all reconstruction work.

Problem targeted

In April 2015 a strong earthquake struck Nepal, injuring and disabling around 3,000 people. This also led to the destruction of private houses and public buildings, including education and health facilities. Notably, former post-earthquake reconstruction failed to result in more accessible public buildings.

Solution, innovation, and impact

Of the 31 most affected districts of Kathmandu, the government prioritized and classified 14 as "severely affected." ADRAD then mobilized persons with disabilities in their local communities and got them involved in planning, monitoring, and advocating a disability-inclusive approach to the reconstruction process. At the same time, the organization was engaged in co-drafting the national post-disaster reform framework. Accessibility and disability trainings were established for construction workers and designers, and advocacy meetings with concerned authorities were held regularly to ensure inclusion.

"A remarkable number of persons with disabilities benefitted from state services during post-earthquake reform."

Dr. Birendra Raj Pokharel, Chairperson, ADRAD

The project led the government to implement new accessibility standards when building schools and public places. (The provision of accessible schools is included in the newly adopted Inclusive Education Policy of January of 2017.) At the same time, the parliament amended the Disabled Persons Protection and Welfare Act of 1982 and brought it in line with the UN CRPD such that the act now covers accessibility measures in all public places.

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Reconstruction is guided by persons with disabilties.

Since the start of the programme, 780 persons with disabilities have been trained for mapping and monitoring the accessibility standards and have become leaders on a local level to guarantee accessible reconstruction. To date, 87 public buildings – including health facilities, schools, and public toilets – have been made accessible during the post-earthquake reconstruction process.

Outlook, transferability, and funding

Newly developed municipalities are adopting the accessibility standards laid out by the government, and the project is being replicated in other districts.

Elsewhere in Nepal, local bodies have funds for making accessible public places, thus the project could potentially be replicated throughout the country.

The project was funded by the public ($56,000), by civil society ($46,000), and through other kinds of non-financial support.

FACTS & FIGURES (2016 – MAY 2017)

- 145 construction workers, designers, engineers, and contractors were trained on accessibility standards and disability rights.
- 6,765 persons with disabilities and their families received first-phase funding for constructing new houses.

see corresponding Life Story on page 106

Making footpaths accessible for leisure and daily use

NORWAY / TELEMARK COUNTY

Telemark's County Council, County Governor, Road Administration, and Trekking Association have stimulated the upgrading of walking trails from central urban areas to surrounding areas in Telemark county (located in south-eastern Norway) to allow access for persons with various disabilities. Currently, 12 of the 18 municipalities have at least one footpath installed and there are plans for the other six.

Problem targeted

Uneven and poorly maintained footpaths can create serious obstacles for persons with mobility problems, preventing them from enjoying the outdoors, even in recreation areas that may be close to their homes.

Solution, innovation, and impact

The project began by conducting a survey of how accessible the current walking routes in Telemark were. The length of the footpaths chosen were usually a minimum of 2 kilometres, and there was a preference towards circular routes. An interdisciplinary project group consisting of the County Council, County Governor, Road Administration, Trekking Association, and county councils for the elderly and for persons with disabilities was set-up to manage the process of upgrading the paths.

"Our vision is to establish footpaths for all, both in urban and rural areas, so that all citizens have the possibility to go for a walk near their home."

Mrs. Bjørg Inger Flatland, politician and leader of Telemark County's Council for Persons with Disabilities

The group set up guidance for the construction of the paths, including preferable textures that are firm and non-slip, maximum steepness of rises, opportunities for resting, and minimum width, as well as lighting, clear boundaries, simple directions, and other orientation solutions for persons with visual, hearing, or intellectual impairments.

Since the project began in 2012, 12 of the 18 municipalities now have at least one accessible footpath, including walking trails into the forest, pavements in the town centre, and walkways through parks.

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Accessibility features include firm textures, maximum steepness, opportunities for resting, lighting, and many more.

Outlook, transferability, and finance

Of the remaining six municipalities without a completed accessible footpath, four have already created plans and are preparing to begin work and two are awaiting approval of their plans from the municipality administration. Further, there is now a target for each municipality to create more than one accessible path. Six of the 18 municipalities can already boast between two and four accessible footpaths.

Each local municipality in the Telemark region is responsible for the development and funding of its own footpaths, and therefore the funding comes from a variety of sources, including the Telemark County Council, the Telemark County Governor (the Norwegian government), and a national development project on Universal Design funded for the first five years by the Norwegian Ministry for the Environment and later by the Ministry of Local Government and Modernisation, and the Ministry of Children and Equality.

FACTS & FIGURES

- 12 of the 18 municipalities have at least one accessible footpath.
- Six of these municipalities have two to four accessible footpaths.

see corresponding Life Story on page 106

Supporting businesses in creating accessible workplaces and infrastructure

PAKISTAN / NOWPDP

NOWPDP is an NGO working on disability inclusion initiatives. Based in Karachi, Pakistan, the organization started a comprehensive project for public space and workplace accessibility and inclusion in 2012, and since then more than 50 locations have been adapted. To date, more than 2,000 persons with disabilities have benefitted, and 30 branches of a bank along with the head-offices of multinational companies have been made accessible.

Problem targeted
One of the major barriers for persons with disabilities in Pakistan are restrictions to the built environment due to lack of accessibility, excluding them from employment opportunities and from being self-sufficient, contributing members of society.

Solution, innovation, and impact
Since 2012, NOWPDP has been working to transform public spaces and workplaces both in the public and private sector. After working on making public spaces accessible, NOWPDP went on to transform its own office into a Model Accessible Workplace. Using this first-hand experience, the NGO began to offer support services to make other workplaces accessible through a holistic approach, which includes creating accessibility of infrastructure and offering reasonable accommodations, as well as working on employee attitudes through sensitization and sustainable inclusion practices while employing persons with disabilities.

> "NOWPDP and Abu Dawood Group have made special accessibility arrangements in the office and given me appropriate transport service.
>
> Atif Jilany, beneficiary

Companies that NOWPDP has helped to transform include 30 branches of HBL, Pakistan's largest bank; the headquarters of Engro, a multinational company producing fertilizers, food and, more; and offices and locations of Abu Dawood Group and Unilever Pakistan. A major part of this effort is making people and organizations aware of the existing accessibility code of Pakistan. NOWPDP also offers the option of certification to organizations that complete disability inclusion projects.

FACTS & FIGURES

Until 2017, NOWPDP has:

- Reviewed more than 100 locations for accessibility, most of which are in the process of or have already become inclusive.
- Placed more than 350 persons with disabilities in jobs and internships.

Outlook, transferability, and funding
Based on the self-experience of the first phase of the disability inclusion project, NOWPDP creates customized accessibility solutions for other organizations.

NOWPDP's work is funded through grants and crowd funding, and is supported by businesses and organizations that are committed to becoming accessible. For example, HBL funded 40 per cent of the total budget to make 30 of its bank branches across Pakistan accessible at a cost of approximately €28,000.

Supporting leading companies in Pakistan in their accessibility and inclusive employment strategy.

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see corresponding Life Story on page 107

Shoe-shops, barrier-free for all

SPAIN / APSA & TEMPE – FOR&FROM STORES

APSA is an NGO and service provider for people with disabilities operating in Alicante, Spain. In 2010 the organization started a partnership with Tempe Grupo Inditex, the company which designs, markets, and distributes the footwear and accessories for various Inditex retail brands like Zara, Pull&Bear, and Massimo Dutti. In 2010, they developed the For&From Elche store, which is uniquely designed to provide universal accessibility for consumers with various disabilities. For&From Tempe Inditex Group stores are part of the Inditex "For&From" project, an innovative work integration initiative for people with disabilities.

Problem targeted

The possibility of barrier-free shopping in Spain is still quite rare. Although some physical barriers have been removed, many more remain. For example, displays and checkouts are at a height making it impossible for wheelchair users to shop, and some of the fonts used on labels are too small to be easily read by the visually impaired.

Solution, innovation, and impact

The for&from store in Elche is highly innovative in its design and layout. Products are provided by size and the articles are also marked by using different colours, making shopping much easier for older people or those with some form of cognitive disability. In addition, the shop provides special services, such as the use of sign language for people with a hearing impairment.

> "The complete elimination of barriers and its firm commitment to accessibility make us persons with disabilities feel full users and citizens."
>
> Juan Manuel, 42-year-old person with achondroplasia

Tempe has created a 'quality assurance circle' made up of persons with different types of disability who visit the store as mystery shoppers, assess its accessibility, and report the results back to the company. Staff members at the store have received specific training in serving persons with any disability, which is also facilitated by the fact that most of them are also persons with disabilities.

As a result, it has obtained the ISO 170001 certification for universal accessibility.

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FACTS & FIGURES

- For&From has had more than 200,000 customers since its start in 2010.
- The store has provided jobs for five people with physical and sensory disabilities and four with cognitive disabilities.

Outlook, transferability, and funding

The practice has the potential to continue to be replicated; and since it is a design and accessibility model, it can be imitated by other commercial brands as well. The project has not received any external finance, but has been maintained entirely with income from its own commercial activity.

The Fundación Ecología y Desarrollo carried out a study to identify and analyse the social and socio-economic returns from the project using the Social Return on Investments methodology.

The study found that For&From creates social, economic, and socio-economic value approximately seven times greater than the investment made by Inditex to implement the programme.

How to make shopping easier by using shop design.

see corresponding Life Story on page 59

An art exhibition making art accessible in very different ways

SPAIN / FUNDACIÓN ONCE INTERNATIONAL CONTEMPORARY ART BIENNAL

Fundación ONCE is a Spanish foundation established in Madrid in 1988 that is working towards the full inclusion of people with disabilities in all aspects of society. In 2006 it initiated the Fundación ONCE International Contemporary Art Biennal – an inclusive art exhibition recognizing the work of artists with disabilities and presenting them in an accessible way. The Biennal, which attracted 185,000 visitors in 2016, shows different forms of artistic expressions that includes cinema, theatre, dance, and music as well as fine arts. It also offers art related side activities, such as roundtable discussions and workshops.

Problem targeted
Many forms of art do not follow a UD approach and thus limit the ability of persons with disabilities to enjoy culture under equal conditions. Moreover, many artists with disabilities often face social exclusion.

Solution, innovation, and impact
The Biennal follows a comprehensive approach, meeting the needs of both artists and visitors with and without disabilities who would like to enjoy accessible culture. With the help of the exhibition, Fundación ONCE strives to include artists in the art market, as well as make art work accessible for all people regardless of their abilities.

"Thanks to technology, people with disabilities can access art under equal conditions, both as creators and as consumers."

Mercè Luz Arque, Head of the Culture and Leisure Department

Every Biennal focuses on another topic. After having featured the themes "the body," "landscapes," and "language" in past years, the 2016 exhibition chose "technology in the arts" as its theme. Visitors could experience performing and fine arts within a multi-sensory, interactive space. For example, Sun Kim, a deaf artist, captures sound through its materiality, its movement, and from the objects it leaves in its wake. She invites visitors to experience an expanded listening – sound pieces that are to be perceived no only with the ears but also with the eyes.

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FACTS & FIGURES

- 2014: 56 per cent of participating artists had disabilities, and the event was attended by 242,000 visitors.
- 2016: 51 per cent of participating artists had disabilities, and the event was attended by 185,000 visitors.

Technology was used as a medium for artistic expression as well as support for accessing culture by visitors with disabilities. In addition, information was provided in a variety of formats, including audio, sign language, Braille, and 'beep cons' – a beacon-based navigation system that helps blind people find their way in indoor spaces.

Outlook, transferability, and funding
Currently, Fundación ONCE is looking for further alliances and European partners. Due to the easy replicability of the project, the accessible art exhibition can be hosted in virtually any city or country.

Technology was used as a medium for artistic expression as well as support for accessing culture by visitors with disabilities.

Life Stories from Nepal, Norway, Pakistan, Sweden, and UK

THE STORY OF ANNE-LISE DAHL, A DAILY WALKER

"Those daily trips give meaning to my life."

Drangedal, Norway

My name is Anne-Lise Dahl. I am 79 and have lived alone since my husband died six years ago. During the last years of his life he had difficulty walking because of illness. I have been an active person all my life. I love being outdoors walking my dogs. I love nature, the fresh air, physical activity, and meeting nice people. My husband had the same interests.

When my husband was alive, we became less able to continue walking together. But the dogs helped us to get out every day, despite the weather. If not for the dogs, we could have been both mentally and physically less satisfied.

At least two important things happened to us. My late husband got an electric wheelchair – more like a scooter for being outdoors. Second, a functional footpath into the nature preserve close to our house was created. The footpath incorporates Universal Design elements, without compromising the experience of being close to nature when walking on it.

Even though my husband was in a wheelchair, we went for walks in the woods every day – in rain and sun, in windy or quiet weather. But not when there was snow and ice.

I now use a wheelchair myself because of a hip surgery, but I still take my daily walks on this lovely path. Getting inspiration from green nature, fresh air, and meeting other people, these daily trips give meaning to my life.

See corresponding Practice on page 102

THE STORY OF GUNARAJ KHATIWADA, COUNSELLOR FOR ACCESSIBLE HOMES

"Wheelchair users are now participating in local planning processes."

Dhading/Nepal

I am Gunaraj Khatiwada, residing in the rural community of Dhading, one of the most earthquake vulnerable districts in Nepal. I was not prepared for the unexpected, and I have seen both of my houses collapse in a flash. I am now living in a temporary shelter with my seven-member family, including my elderly mother and my children.

Despite my hardship, I have been featured in an episode of Classic FM radio, and the story of my engagement in supporting persons with disabilities touched thousands of listeners. I was privileged to participate in the "Inclusive Post-Earthquake Reconstruction: Public Building Safe and Accessible for All" project of the non-governmental organization Action on Disability Rights and Development, which is supporting thousands of persons with disabilities to utilize state services and benefits. Currently, I am engaged in rehabilitating persons with disabilities in their own communities, helping to construct their accessible houses through government schemes. I am particularly pleased to see many wheelchair-user-colleagues participating independently in local planning processes in the District Development office, which, like many public places, has been made accessible during the post-earthquake reform process.

I am now being encouraged by the local community to represent them politically, and I have devoted myself as a paralegal to supporting persons with disabilities to enjoy their rights and secure dignified lives in an accessible environment.

See corresponding Practice on page 101

THE STORY OF ATIF JILANY, MBA, USER OF NOWPDP

"I am employed at Abu Dawood Group now."

Karachi, Pakistan

My name is Atif Jilany and I have a MBA in finance. I also have muscular dystrophy. I can still recall the days when my mother used to carry me in her arms all the way to my school. Falling from the overcrowded public buses has been a constant part of my life!

I always aspired to work in a place where I would be treated like anyone else – a place where people would see my abilities before they saw my crutches. I have recently joined the Abu Dawood Group through a disability inclusion programme conducted by NOWPDP, and I believe I have found the very place that I have been seeking.

NOWPDP, in collaboration with Abu Dawood Group, has made special accessibility arrangements in the office and provided me with the appropriate transport service. Sensitization sessions and other trainings conducted by NOWPDP have made sure that the other staff members are well aware of my needs. Through the project I have gotten the opportunity to work as an executive in human resources, where I facilitate the employees and ensure that the company's code of conduct is maintained throughout the organization. I manage attendance, third-party recruitment, and various other tasks to facilitate the smooth operation of the HR Department, learning new skills and techniques through every task.

See corresponding Practice on page 103

THE STORY OF MAJA REICHARD, ELITE SWIMMER AND SCANDIC HOTEL CUSTOMER

"I do not need to say anything; it just works automatically for the staff."

Sweden

My name is Maja Reichard and I am an elite swimmer. I am also blind. When I lost my eyesight I could have just crawled into a corner, but instead I chose to accept the challenge, and that's why today I have several European and world championship medals as well as a Paralympic gold medal. As someone who is visually impaired, the most important thing is the services that are available – that there are people around – and to know that I am welcome to ask for help. For example, it is important to feel that I can travel to a hotel without having to bring anyone else with me. I might go to a hotel for work or just to relax and feel independent. The hardest thing for me when I come into a hotel environment that I don't know is to find that first point of contact, in this case the reception. I really appreciate when the staff recognize you – that they can see that there's someone standing in the entrance perhaps looking a little bit lost, that they come up and ask if they can help. A very telling experience that I've had at a Scandic Hotel was when I had dinner in their restaurant. I was there with my family, and when we were served the food the waitress told me that "at three o' clock you have the potatoes, at six o' clock is the salad" and then kept describing the whole dish to me. She told me afterwards that she had seen my folded-up blind stick under the table.

It was so great that I didn't need to say anything; it just works automatically for the staff at Scandic. They know their stuff!

See corresponding Practice on page 109

THE STORY OF CHRISTIAN, A GIG BUDDY

"I have gained a life-long friend."

Sussex, United Kingdom

My name is Christian. I'm a young man who has mild autism and learning disabilities, and I have often felt socially isolated and wanted to get out more and meet new people. Three and a half years ago I became a Gig Buddy and got matched up with my volunteer, Jo.

It was a bit like a blind date. We were matched as people who lived close together and shared a passion for music. I rarely socialised with people outside my family before I found Gig Buddies. Gig Buddies has allowed me and Jo to experience so many great things.

Gig Buddies has made me a stronger and more confident person. Before meeting Jo, I couldn't be around so many people, but she is always encouraging me to get out there. I've even got to know Jo's friends, and I'm comfortable talking to them without her there. I have got the best Gig Buddy out of it – friends for life!

See corresponding Practice on page 112

Making e-mail communication accessible for persons with intellectual disabilities

SPAIN / FUNDACION PRODIS – KOLUMBA SOFTWARE

Fundacion Prodis is a Spanish foundation committed to supporting persons with intellectual disabilities in various areas, with special focus on children and young people. In 2014, Fundacion Prodis developed Kolumba – an open source software that makes a personal Gmail account more accessible to persons with intellectual disabilities. More than 400 people already use Kolumba.

Problem targeted
The use of e-mail has become indispensable in both professional and private life, but for persons with intellectual disabilities the surface of an ordinary e-mail account is often inaccessible and the use itself often poses difficulties.

Solution, innovation, and impact
Fundacion Prodis developed Kolumba jointly with communication professionals, technology developers, and young people with intellectual disabilities who were trained and contributed to the development of the application based on their needs and preferences. The following three features of the application can be switched on and off on the ordinary Gmail surface when needed:

- Text and content simplifier (Simplext)
- A pictogram-text, text-pictogram, and pictogram-pictogram translation tool (Text2Picto)
- Text-to-speech functionalities

These components can be integrated into the existing Gmail surface in English or Spanish without having to create a new account. The application is freely available through an open source development platform.

Kolumba makes the usage of Gmail much easier by simplifying the language and using pictograms and text-to-speech-functionalities.

> "Thanks to Kolumba I can write emails, receive them, and answer them. It is very easy."
>
> Julián Contreras, employee,
> Prodis Special Employment Centre

Outlook, transferability, and funding
Kolumba was developed in both Spanish and English to allow for wider international access. The project was commissioned with the support of Spanish and other European partners, including Thomas More (the largest university in Flanders) and the Building Bridges Programme (partly financed by the EU to facilitate access to employment and education).

In Spain there have been three bodies driving the project: the Prodis Foundation, Ariadna Servicios Informáticos (a Spanish company providing ICT services to private companies and public administration bodies), and the Pompeu Fabra University in Barcelona.

The development was part of the European ABLE TO INCLUDE grant programme of the European Commission, aimed at the introduction of communicational accessibility for people with intellectual disabilities in any software development The budget for this project was €231,884, to which the European Commission has provided half.

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FACTS & FIGURES

- Number of beneficiaries: 108 (2014), 138 (2015), 168 (2016), 400 (2017).

Comprehensive hotel accessibility strategy

SWEDEN / SCANDIC HOTELS

The Scandic Hotels Group, the largest Nordic hotel operator with a network of 230 hotels in seven countries, has developed a comprehensive approach to accessibility in their hotels. The strategy includes training courses for all hotel staff, a dedicated Accessibility Director, and a 135-point checklist of accessibility features.

Problem targeted
For most persons with disabilities it is difficult to enjoy the comfort of a hotel stay independently due to physical barriers, staff members who are not knowledgeable on disability issues, and a lack of accessibility features in rooms and public areas.

Solution, innovation, and impact
Scandic is a hotel chain with headquarters in Sweden, operating primarily in the Scandinavian countries of Denmark, Finland, Norway, and Sweden. For more than a decade, Scandic has focussed on making its hotels more accessible for persons with disabilities.

Scandic's "Accessibility Standards" are based on a 135-point checklist, 90 of which are compulsary to all hotels.

"What makes me most proud is when guests tell us that when they stay at Scandic, they're treated as hotel guests, not as people with disabilities."

Magnus Berglund, Director of Accessibility, Scandic Hotels Group

In 2003 the group appointed a dedicated Accessibility Director, and since then the hotel chain has implemented a wide-ranging strategy to make its facilities more accessible. Scandic was the first hotel chain in the world to offer a comprehensive interactive training course on accessibility for all 15,000 of its employees. The course includes instructional videos and tips, such as how to treat guests with hearing impairments, how to prepare and serve food for persons with visual impairments, and how to provide service for persons with mobility problems.

Much of the work on improving accessibility within the hotels is based on Scandic's "Accessibility Standard" – a 135-point checklist, which was drawn up by following the route taken by guests from the car park and through the hotel, and with input from guests, disability organizations, and hotel staff. The list covers such features as the maximum height of beds, shower heads to be fitted to their lowest level, and hearing loops and cane holders at reception areas. Ninety of the 135 points are compulsory for all Scandic hotels, and all 135 points are applied when renovating or building new facilities.

Outlook, transferability, and funding
The accessibility standards and adaptations have been successfully replicated across Scandic's hotel chain, both within the four Nordic countries and beyond in Belgium, Germany, and Poland. In 2016, Scandic opened two new hotels: the Scandic Continental in Sweden and the Scandic Flesland in Norway, which are now the most accessible hotels in the company's portfolio.

The accessibility strategy is funded as part of the company's commercial model, based on income from the hotels. For new buildings or refurbishments, the accessibility features are included within the build costs as part of the design.

FACTS & FIGURES

- Some 15,000 staff have been trained in accessibility.

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see corresponding Life Story on page 107

Large-scale access to health services in a low-income country

TOGO / INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC) MOVEABILITY FOUNDATION

The International Committee of the Red Cross (ICRC, based in Geneva, Switzerland) created the MoveAbility Foundation in 1983, which provides administrative, logistical, and technical support. In 2015 MoveAbility initiated a project in Togo by working with a national school and a service provider – a course designed to train and support managers of physical rehabilitation centres. In 2016 alone, some 9,800 people with disabilities received necessary rehabilitation services.

Problem targeted
The standards of physical rehabilitation services in Togo are very low due to the lack of skilled personnel and of coordinated mechanisms among national authorities, service providers, civil society, and people with disabilities.

Solution, innovation, and impact
The Essential Management Package (EMP) programme offers a process for managers, working with their actual work teams, to learn leadership and managing practices that make it possible to face challenges and achieve measurable results. The coursework includes management and leadership training adapted to the health and disability services environment, the introduction of standardized operational procedures and protocols, and financial sustainability planning.

> "Being part of the national platform with the various stakeholders involved is a real opportunity for change."
>
> François Katatchom, Programme Director, Togolese Federation of Disabled People's Organization

Through Senior Leadership and Governance training, the ICRC, the local Management Science for Health organization, and the foundation brought together the Ministry of Health (MoH), the director of a rehabilitation reference centre, a senior staff member of the Togolese Red Cross, and disabled peoples organizations to create a platform for information exchange and cooperation.

FACTS & FIGURES

- In 2015, 5,786 persons with disabilities received devices and services; in 2016, there were 9,800 beneficiaries.
- In 2015, five people participated in the Senior Leadership training; in 2016, six people participate in the EMP programme.

As a result, the MoH substantially increased its financial contribution to support this project; and since then the number of services provided to people with disabilities has increased significantly.

Outlook, transferability, and funding
Members of the platform continue to meet and to influence decision-makers, and for the first time in Togo the physical rehabilitation actors and civil society are directly consulted on social policy. Platform members also raise issues of disability and place them on the political agenda. The MoH is currently working on a revision of the national social and protection policy to improve services for persons with disabilities.

The national platform is now being extended to other countries in Africa, and has been proposed in all cooperation agreements with the concerned ministries of the countries in which MoveAbility operates. Currently, it is being implemented in Tanzania and Benin, and Côte d'Ivoire has expressed an interest in developing such a platform as well.

The financial investment of the MoveAbility Foundation was €434,000 in 2016 and €670,000 in 2017, of which €21,000 in 2016 and €30,000 in 2017 were used to back-up platform activities.

The advocacy work done by the platform has subsequently been translated in an increased contribution from the government of €20,000 in 2016 and €70,000 in 2017.

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Audio descriptions-app making movies accessible for the blind

TURKEY / YOUNG GURU ACADEMY – MY DREAM COMPANION

Young Guru Academy (YGA) is an NGO founded in 2000 in Istanbul, Turkey, that identifies and trains young people in leadership responsibilities. “My Dream Companion – a Mobile Audio Description” is a cost-free mobile application developed by visually impaired YGA graduates and Turkcell, a mobile phone operator. The application provides audio descriptions of movies for visually impaired persons, making cimemas and film culture accessible to them throughout the country. Since 2015 approximately 180,000 visually impaired persons have benefitted from the application.

Problem targeted
Movies without audio description are not accessible to people who are blind or visually impaired. In some cinemas, wireless headphone systems are used for audio descriptions, but they are costly and rarely available.

Solution, innovation, and impact
My Dream Companion was launched in 2011 with the strategic partnership of visually impaired Young Guru Academy graduates and Turkcell, a mobile phone operator. Visually impaired individuals can access the application via the Apple Store or Google Play Store, or by calling a dedicated phone number (8020).

> “I still remember the first day using the audio description feature in a movie theatre. The joy of being independent and understanding every detail in the movie was an unforgettable experience.”
>
> Yunus Tarik, a visually impaired application user

The application provides an audio description of movies over a mobile phone without requiring any additional equipment or software. Voice recognition technology gives the listener a detailed description via an external voice of the scenes in a film that have no dialogue. The technology recognizes the parts in a film where the dialogue stops and automatically starts an audio description synchronized with the film. The service can also be used for viewing DVDs and television programmes.

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FACTS & FIGURES

- Over last three years some 180,000 visually impaired people have benefitted from the app.
- Two new movies are available each week.

Outlook, transferability, and funding
The application has an average of 200 downloads each week, and two new movies are made available each week. Currently, the project team is working on getting new partners to sustain the app, as it should remain free for users.

The application has not yet scaled to other countries, although the internationalization of this project could be easily done by working with partners in order to secure financial sources.

Turkey’s largest GSM company, Turkcell, has become their strategic partner and provides them financial resources. The project also receives non-financial support in return for preparing audio description for various institutions.

“My Dream Companion” is a cost-free mobile application developed by visually impaired YGA graduates.

Teaming up persons with learning disabilities or autism for leisure activities

UNITED KINGDOM – STAY UP LATE/GIG BUDDIES

Located in the south of England, the NGO "Stay Up Late" developed "Gig Buddies," a programme supporting socially isolated people with learning disabilities and/or autism and encouraging them to be active in their communities. Such individuals are introduced to a volunteer befriender who shares the same cultural passions as they do, which typically include live music and sport events, nature walks, as well as theatre and other cultural activities. By mid-2017 there were 85 active "buddy pairs."

Problems targeted
Research published in 2010 by the Learning Disability Coalition showed that about half of all people with learning disabilities in the United Kingdom spend most of their time at home and alone.

Solution, innovation, and impact
Stay Up Late matches each participant with a volunteer with the aim to develop an ongoing friendship. The matching process takes into account such factors as cultural tastes, gender, age, geography, and whether the individual can access public transportation. It is essential for the success of the process that these matches are made with careful consideration. Volunteers are asked to commit to two events per month – typically one "gig" and one catch-up over a coffee to plan the next event.

"It's made me a stronger and more confident person. Before meeting Jo, I would not have felt comfortable to be around so many people."

Christian, a beneficiary

The programme has been able to reach out to new kinds of volunteers, notably people who enjoy going to live music and sport events and had not thought of volunteering before. This approach makes the act of volunteering easier, turning something a person enjoys into a volunteering opportunity and sharing it with a socially isolated person.

Since its start in 2013, Stay Up Late has matched 85 pairs of "buddies" and has trained five people with disabilities to co-facilitate the volunteer training days.

Paul Richards
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FACTS & FIGURES

- 85 pairs of "buddies" (people with a disability and a volunteer) attend two events per month.
- Three people with learning disabilities have been employed.

It has also created a paid employment position for three people with learning disabilities.

Outlook, transferability, and finance
Stay Up Late started in the south-east city of Brighton and Hove and has now expanded to cover the counties of East Sussex and West Sussex.

Stay Up Late has created a social franchise, which shares all methodology and learning. There are now projects in other parts of the UK and Australia.

The goal is to knit all these partners into a single community, sharing experiences and supporting each other to develop new projects in their local area.

The project is financed through grants and relies on paid staff to co-ordinate and support participants and volunteers. Through social franchising, Stay Up Late is able to recuperate some of its cost.

Gig Buddies having fun!

see corresponding Life Story on page 107

A free online ICT accessibility course, accessible by the blind and deaf

UNITED STATES / AMAC – ICT ACCESSIBILITY MOOC EDUCATION FOR ALL

The ICT Accessibility Open Online Course (MOOC) is a six-week, 100-hour course taught by accessibility experts. The project was initiated in 2016 by the Georgia Institute of Technology (Georgia Tech) through its research and design centre (AMAC), and is available worldwide. The self-paced format encourages interaction between students and instructors with content-rich videos, discussion forums, activities, and tests for those who want a certificate and/or are enrolled in the school's Continuing Education Unit. Since inception, the ICT Accessibility MOOC has had 7,636 total enrollments and 161 countries represented.

Problem targeted

There is a great knowledge gap on accessible ICT that is excluding people with disabilities from the workplace, the Internet, and basically all facets of life. Web designers, ICT employees, and most people producing ICT content have not aquired the knowledge and skills to make their work accessible.

> "I really enjoyed 'meeting' persons who really do use accessible technologies and seeing how they use those technologies to do their work."
>
> Student, Georgia Institute of Technology

Solution, innovation, and impact

MOOC employs a fully accessible Learning Management System, and course content can be divided into six topic areas:

- Foundations of ICT accessibility
- Principles of accessible ICT design for the workplace and procurement
- Uses of assistive and mainstream technology for persons with disabilities
- Creation of accessible documents and multimedia, accessibility standards, tools to check accessibility, multimedia captioning, and audio description standards/guidelines
- Use of online evaluation and remediation tools for websites using HTML5 and ARIA
- ICT accessibility operations model exploring the market forces and organization challenges.

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The MOOC is available (in English) regardless of country, nationality, or region. People with a disability, educators, parents, homemakers, employees, or CEOs can take the course and interact as equals.

As of mid-2017, MOOC has enrolled 7,636 participants from 161 countries; and in a participant survey, more than 75 per cent of respondents said that they will apply what they have learned to their job.

Outlook, transferability, and funding

When the course was first announced in February 2016, there were 53 participants. The following month there were 1,960 participants, and from there the number has steadily grown to over 7,000 as reported in June 2017.

Georgia Tech welcomes collaboration with employers, universities, and disability advocacy organizations that wish take or replicate the course. Anyone can register for the free course and then map out a plan to replicate the course and tailor it to the needs of their own university, country, region, government, or business.

AMAC Accessibility received a grant of $17,000 from Georgia Tech to cover staff salaries, and contributions by university staff/faculty and corporate experts is valued at $120,000.

FACTS & FIGURES

- Participants grew from an initial 53 in February 2016 to more than 7,000 today.
- The programme has reached 169 countries/regions.

The playful way to create accessibility maps

UNITED STATES AND CANADA / AXS MAP

AXS Map (pronounced “access map”) is an accessibility map developed by Jason DaSilva in 2009, which is available as a free application on iPhone and Android, and on the mobile web. The app features a gamification element called “AXS Mapathons,” whereby teams compete against each other in real time while rating venues in their community on their accessibility. Google is one of the major corporations that supports AXS Map. Through their annual volunteer programme, Google Serve, Google runs AXS Mapathons for AXS Map worldwide. By mid of 2017, ASX Map had some 100,000 users in 200 cities.

Problem targeted
Accessible places, such as restaurants, schools, work places, health services, and voting booths, for example, are often hard to find because they are not sufficiently mapped or because existing sources of information are not being continuously updated and developed. In addition, information provided by the venues via the Internet or even on request are often unreliable.

Solution, innovation, and impact
AXS Map is an accessibility mapping app that uses gamification (tools of online games to inform or teach) to build and enhance access services for persons with disabilities. AXS Mapathon participants are able to sign up on AXS Map for scheduled competitive events or start an AXS Mapathon themselves. Participants can compete for rankings, badges, and various rewards based on the number of reviews they complete in the allotted time.

FACTS & FIGURES

- AXS Map has completed nearly 300 AXS Mapathons.
- AXS Map’s data has expanded to over 600,000 places.
- Since 2014, AXS Map has recorded more than 114,000 sessions from some 100,000 users – creating over 1.1 million page views.

Outlook, transferability, and funding
Because AXS Map uses Google Maps API, all areas on Google Maps can be accessed on AXS Map and can be reviewed or marked to show whether they are accessible or not.

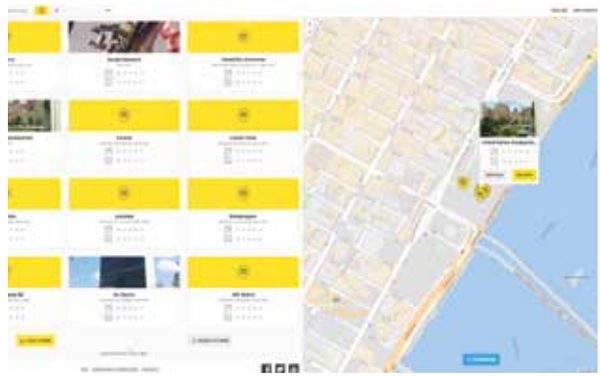
Going forward, AXS Map could be used by the United Nations in developing countries, as confirmed at the recent 10th session of the Conference of States Parties to the UN CRPD.

Total value of funding amounts to $238,000, which are used for developing AXS Map 2.0 and general operating expenses for AXS Lab.

“As I look at the growth we have seen since I created the AXS Map, I am reassured that there is a need for this technology – around the world.”

Jason DaSilva, Founder and President of AXS Map

AXS Map works with software programers in Paraguay who have donated their time after winning a hackathon for AXS Map to optimize the tool and build an Application Programming Interface (API). This API allows AXS Map to tap into other accessibility databases around the world, thus expanding AXS Map’s data to over 600,000 locations. This was made possible by the support of a Google Impact Award.



AXS Maps uses competitive events, rankings, and awards to encourage participation.

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How to support your embassies in producing captioned videos

UNITED STATES / DEPARTMENT OF STATE – GLOBAL VIDEO CAPTIONING PROGRAM

In 2015 the Office of Accessibility and Accommodations, a division of the U.S. Department of State (DOS), established a global Video Captioning Program on a web-based platform that supports and standardizes the process of more easily captioning videos for internal content producers and clients. In 2017 as many as 5,000 videos will have been captioned and uploaded for general use, making information on such topics as visa applications and education exchange programmes accessible to people who are deaf or hard of hearing worldwide.

Problem targeted
The Department of State produces or owns nearly 20,000 videos per year in various domestic offices and at over 250 overseas locations in more than 70 languages. Videos include information on a huge range of topics, from how to apply for a visa to an education exchange programme, but there was no coherent policy or strategy on how to caption video media.

Solution, innovation, and impact
Using cloud services as file-sharing mechanisms between domestic and international locations, the DOS has been able to make the process of captioning videos easier for internal content producers and clients. The Video Captioning Program uses Sharepoint, a web-cloud solution developed by Microsoft, Inc. Videos are uploaded to this cloud environment and are then augmented by input from staff, unpaid interns, and vendors providing transcription and captioning services in over 70 languages.

Captioning services in over 70 languages.

> "Thank you for ensuring accessibility for those of us who are deaf and hard of hearing."
>
> Sara Collins, Contracting Officer

These workflows allow for the automation of many processes, such as notification of new captioning assignments, notifying clients regarding the status of their requests, and delivering the finished product via auto-generated emails.

The site also provides guidelines to offices that prefer to caption their own videos. There is a strong customer service focus, including written guidance on tone and language to use for phone calls and emails, and a response time of no more than three business days.

DOS can now caption live video (including Adobe Connect webinars) in two languages, and pre-recorded video in over 70 languages.

Outlook, transferability, and funding
Several offices have begun captioning their own video media, following programme guidelines. The programme has also begun investigating audio description services to make videos even more accessible. Several other federal agencies have expressed an interest in replicating the practice, which can be done relatively easily, as the software used by the DOS is widely used in other countries. The current budget is over $2 million for captioning and captioning-related services, all paid for by the U.S. Government.

FACTS & FIGURES

- In 2017 more than 5,000 captioned videos were be produced.
- As just one example, in 2016 captioning services were provided for one office that produced 51 live events watched by over 11,800 viewers.

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see corresponding Life Story on page 118

‘How-to’ guides and resource directory for parents and caregivers

UNITED STATES / EXCEPTIONAL LIVES, INC.

Exceptional Lives is a non-profit organization based in Massachusetts, USA. The organization has developed an online IT platform that provides tens of thousands of parents and caregivers with the personalized information needed when navigating disability-related processes, such as applying for public benefits and identifying other services for children and young adults with disabilities. As of August 2017, the IT platform has expanded to the state of Louisiana, with other U.S. states to follow.

Problem targeted

There is a large gap in filling the information needs of parents of children with disabilities. These families face complex medical and educational choices, and must navigate extremely complex processes to get the services, benefits, and education that their children need. Furthermore, caregivers are often unaware of the government and community programmes that exist to help them and their children.

FACTS & FIGURES

- Over 50,000 users have accessed the Massachusetts How-to Guides and Resource Directory during the last 18 months.
- Users have given the Guides an average rating of 4.5 stars out of 5.

> “An amazing compilation of disability services information with ease of navigation.”
>
> Parent user, United States

Solution, innovation, and impact

Exceptional Lives provides free, easy-to-follow information for parents and caregivers of children and young adults with disabilities, as well as professionals working with this population. The IT platform offers of a series of free personalized “How-to Guides” using a unique decision tree software that allows parents to be interactive and limits the information to only what the family needs. The Guides are accessible through any web-connected device, including mobile phones, and include alternative text to ensure access to all persons with disabilities. The step-by-step Guides walk users through processes such as how to obtain Supplemental Security Income cash benefits and how to access early intervention, health insurance, or Medicaid – a U.S. Government health programme. The platform also offers a searchable Resource Directory and a help service through email or phone.

To keep the IT platform up to date and gain a better understanding of what parents need, Exceptional Lives hosts focus groups and distributes online surveys. Additionally, the software collects data that allows the organization to target guide improvements but also identifies how the delivery programmes, benefits, and services can be enhanced – data that is later shared with the appropriate government agencies.

Outlook, transferability, and funding

The software and personalized Guides are well suited for adaption and any region where people have access to the internet. In August 2017, Exceptional Lives launched a new platform in Louisiana, and expansion into other states is possible in the future.

The Exceptional Lives IT platform is funded through private investors and grants from foundation such as the Alden Trust (a foundation that focuses on education), the Butler Foundation (a U.S.-based charitable foundation), and the Baton Rouge Area Foundation (a community foundation).

The Guides are accessible through any web-connected device and include alternative text to ensure access to all persons with disabilities.

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Creating bilingual storybooks in written and sign language

UNITED STATES / GALLAUDET UNIVERSITY – VL2 STORYBOOK CREATOR

The VL2 Storybook Creator is an IT-platform and app developed in 2012 by Gallaudet University's Science of Learning Center, in Washington, DC, USA. The VL2 Storybook Creator provides a bilingual reading experience in written and sign language, supporting the literacy development of deaf children. Using the VL2 Storybook Creator, anyone can create their own bilingual storybook. Since 2013 it has been dowloaded approximately 50,000 times.

Problem targeted
There are many storybook applications for young readers on tablets, with audio voice-over for read-a-long experiences. However, young deaf readers miss out on crucial sign language exposure, and thus the chance to learn and practice sign language.

Solution, innovation, and impact
The storybook applications built from the VL2 Storybook Creator provide a bilingual reading experience through high-quality storytelling in both sign language and printed text. With the VL2 Storybook Creator, educators and developers are enabled to create their own bilingual storybooks. Educators are provided with training on how to utilize these applications to support the literacy skills of deaf children both in the classroom and at home with lesson plans, classroom activities, and curriculum-based objectives.

"Deaf children who are exposed to examples of extended use of sign language, such as stories, are presented with opportunities to develop potential cognitive flexibility and metalinguistic abilities that ultimately facilitate the development of English literacy skills."

Dr. Laura-Ann Petitto, Cognitive & Educational Neuroscientist and VL2 Science Director, Gallaudet University

With the VL2 Storybook Creator, young deaf children can read independently and in a self-directed manner, and they can learn from reading through touchscreen tablets in both sign language and printed text. The programme, led by an all deaf team, also trains and supports the deaf community to develop vital skills – including filming, editing, and translating.

The programme works with families, educators, and libraries to coordinate storytime sessions as well as with schools.

FACTS & FIGURES (2013 TO 2017)

- Over 50,000 downloads.
- 14 Storybook apps have been published, with more in development.

Outlook, transferability, and funding
Since 2012 the programme has expanded to more partners in the United States as well as to partners in Germany, Italy, Japan, the Netherlands, Norway, Russia, and Saudi Arabia.

The ultimate goal is to build a global digital library, with storybook applications available in a variety of sign and and written languages, and featuring illustrations by deaf artists and deaf storytellers.

Currently, 60 per cent of funding comes from the university, 20 per cent from grants and partners, and 10 per cent from licensing revenues and sales.

With the VL2 Storybook Creator, young deaf children can read independently and in a self-directed manner.

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Four Life Stories from the United States

THE STORY OF ZOE HARTMAN, USER OF ORCAM MYEYE

"I can purchase and pay again, read my mail, and use the subway by myself."

Brooklyn/New York City, United States

My name is Zoe Hartman, age 25, and I live in Brooklyn. Previously, I was a production assistant in the film industry and hoped to become an assistant director. When I was 22, however, I suddenly lost much of my vision, and it decreased further over the following few months. After a year of tests and misdiagnoses, a biopsy revealed that brain inflammation, from an unknown cause, had damaged my optic nerves. I learned to use a cane to get around and magnifiers to help me read, but I frequently had to rely on others for assistance – someone who could read small print, for example. Thanks to OrCam MyEye, however, I've gone from relying on others to doing things for myself. The OrCam MyEye helps me pay for purchases without relying on someone else to count my money. It also helps me read signs so I can travel on my own. Since having OrCam, I have shopped for groceries, read my mail, and used the subway by myself. I have even gone back to work. I worked on a couple of television shows and have used my OrCam MyEye to read documents and fill out paperwork more quickly – an asset in the fast-paced film industry. I also recently became a reservationist at a restaurant, which I could not have done without OrCam MyEye.

OrCam also helped me return to activities I love. It helps me read menus when out with friends or family and small print on food labels or museum signs. Now that I can read a script, I'm even considering returning to theatre work, a favourite hobby.

See corresponding Practice on page 87

THE STORY OF SIMON VAN STEYN, NEW MEDIA PRODUCER AT THE DEPARTMENT OF STATE

"We are able to reach a much broader audience and connect all people."

Washington, D.C., United States

My name is Simon van Steyn and I work as a New Media Producer in the U.S. Department of State's Bureau of International Information Programs, which supports people-to-people conversations with foreign populations on U.S. policy priorities. To carry out this mission we leverage digital communications technology to reach across platforms – from traditional forms of communications to new media channels. We regularly utilize the services of the Department's Video Captioning Program, which we feel is integral to ensuring these conversations reach individuals who are deaf or hard of hearing around the world.

While the Video Captioning Program team provides captions for all of our events, of which there are many, I would like to highlight one example that I feel is particularly relevant and illustrative of the important support they provide. In April of 2017 we hosted a live event that featured disability rights advocates and educators speaking with participants located throughout the Western hemisphere about the importance of law and education in protecting disability rights. Over 300 individuals from various embassies and non-governmental organizations participated. The event was entirely in Spanish and live captioned by the Video Captioning Program, which is managed by the Department's Office of Accessibility & Accommodations, Bureau of Human Resources. Ensuring equal access to information has been at the forefront of our communication and outreach strategy. The Department's Video Captioning Program has made the process of captioning videos and live events easier for us – saving time and money, while ensuring our products are inclusive. We are able to reach a much broader audience and connect all people with policy through dialogue that is relatable, understandable, and accessible.

See corresponding Practice on page 115

THE STORY OF TRAVIS HARKER, FATHER OF A CHILD WITH LEARNING AND ATTENTION ISSUES, AND USER OF UNDERSTOOD.ORG

"I began to see that my daughter could thrive in school and in life."

Manchester, New Hampshire, United States

My name is Travis Harker and I am the father of a girl with dyslexia, a lifelong condition that makes it difficult for her to read. She first began noticing in kindergarten that her peers could read better than she could, yet she continued to love learning. But over the next few years, despite working very hard, she lost confidence and began to resent school. My heart broke when she came home one day in tears and asked, "Why is everyone in my class smarter than me?"

I felt lost and helpless. I was losing the vibrant, inquisitive, intelligent daughter that I knew. I was worried about her future and felt like a failure as a parent. I felt powerless to help her – until I found Understood.org.

Understood provided information that helped me navigate the school system. With Understood's resources, I learned how to advocate for my daughter and how to partner with her school to get her the support she needed. Back then, I felt so alone. I blamed myself and was afraid to talk with my friends and co-workers about her challenges. But through Understood, I found a community of families just like mine. It was comforting to know that there were other parents with similar experiences and to hear that their kids were able to succeed.

Most importantly, Understood gave me hope. I began to see that we'd be OK – that my daughter could thrive in school and in life. Today, my daughter loves school and learning. She is once again the curious, fun-loving girl I've always known.

See corresponding Practice on page 124

THE STORY OF MATTHEW CHAFFEE, USER OF MARY FREE BED YMCA

"It means I can enter at ground level, same as my able-bodied friends."

Grand Rapids, Michigan, United States

My name is Matthew Chaffee and I am a 27-year-old multi-sport wheelchair athlete. As such, I spend a lot of time at the Mary Free Bed YMCA in Grand Rapids for practice and tournaments. Before the YMCA opened, I had never participated on a wheelchair sports team because they just weren't convenient for me. Now that everything is centrally located at the YMCA, and because I work out there anyway, I participate in basketball, rugby, softball, and handcycle.

The Mary Free Bed YMCA is built around the principles of Universal Design. For me, it means I'm able to enter the building at the ground level, same as my able-bodied friends, instead of needing to use a ramp off to the side. Similarly, I'm able to access the building's various levels via a large ramp that serves as the primary form of vertical circulation. The gym equipment is also more accessible than other workout facilities I've belonged to, with seats that slide away, allowing me to gain access from my chair. Another big advantage that speaks to the planning of the YMCA includes a specific wheelchair storage area where I and my teammates can store our sports chairs. This makes getting into and out of the building much easier, eliminating the need to navigate with the extra chair when coming in for practice or a tournament. The most noticeable difference at the Mary Free Bed YMCA is that it feels like it was truly built for everyone. Most buildings that are only compliant to existing laws seem to be designed for the able-bodied, with modifications made afterwards. The difference is amazing and is felt by everyone who enters the facility.

See corresponding Practice on page 120

A community centre built on Universal Design principles

UNITED STATES / MARY FREE BED YMCA

The Mary Free Bed YMCA is a 36 acre community centre supporting children, adults, and families in Grand Rapids, Michigan. The facility was designed using the principles of Universal Design and is the first building in the world to be certified by the Global Universal Design Commission. The YMCA was built to provide an inclusive, accessible campus for all community members. Currently, the center has over 200 adaptive sports athletes that access the YMCA for practice, tournaments, and fitness.

Problems targeted:
People with disabilities often find it difficult to work-out or exercise because many community fitness/ wellness centres are not designed or have the proper equipment to meet their needs, notably in the ares of healthy living, wellness, healthy aging, adaptive fitness, nutrition education, and youth leadership.

Solution, innovation, and impact
The facility was meant to be a model for all future YMCA buildings, both locally and around the country. With zero stairs throughout the 120,000 square foot facility and 36-acre campus, vertical circulation is achieved through a centrally-located ramp that creates equality among users.

"We don't have to think about where the handicap entrance is or how we move between levels – even the family locker rooms here are a huge help for us."

Emily Bush, mother of Carson who has spina bifida

Color also plays a large role in terms of psychological effect and in guiding people with visual impairments. For example, the contrasting colors of the track lanes make them more visible. Other features include a transfer station for the independent use of the pools, slip-resistant flooring, a wheelchair softball field, hearing loops throughout, and specialized filtration and acoustical systems in the aquatic environments.

Outlook, transferability, and finance
The Mary Free Bed YMCA has been growing in terms of sports membership, programmes, and partnerships. Additionally, the facility has received considerable attention from higher education organizations, rehabilitation hospitals, and accessibility committees – all of which are eager to learn more about Universal Design and possible application to meet their own needs.

The Mary Free Bed YMCA is financed through membership fees and programme revenues (80 per cent), and grants, donations, and fundraising (20 per cent). A second-generation scenario could result in a more substantial rehabilitation hospital component, driving additional revenue from an on-site physician's practice.

FACTS & FIGURES

Since 2015, the following has been achieved:

- 291 per cent increase in memberships.
- 25 per cent increase in net revenue.
- More than 200 adaptive sports athletes access the YMCA for practice, tournaments, and fitness.

Zero steps in the 120,000 square foot faciliy and dozens of inclusive opportunities for sports and fitness.

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see corresponding Life Story on page 119

A comprehensive strategy to make Office 365 fully accessible

UNITED STATES / MICROSOFT, INC. – OFFICE 365

Microsoft is a U.S. multinational technology company with headquarters in Redmond, Washington. The organization has developed Microsoft Office 365, a cloud-based subscription service for Windows, MacOS, iOS, Android, and Windows Phone. To simplify the utilization for persons with disabilities, Microsoft 365 has been made accessible by including accessible templates, built-in learning tools, intelligent suggestions for image alt-text, and an accessibility checker. More than 120 million people use Office 365 Commercial and more than 28 million consumers use Office 365 Home and Personal.

Problem targeted
Persons with disabilities often face challenges accessing the technologies that allow them to work efficiently and independently with any device.

Solution, innovation, and impact
Office 365 is available for home, business, enterprise, and education use. Plans and pricing vary – including free versions for students and teachers – and can include access to fully installed Office applications for PC/Mac, tablet, and phone. OneDrive storage and Skype Office 365 enables persons with disabilities to communicate in a variety of accessible ways, such as through accessible templates, which are structured for ease of navigation with screen readers and keyboards and use accessible fonts and colours; and an accessibility checker, designed to find and fix any issues that might make content difficult for people with disabilities. Other features are the intelligent alternate text and the built-in learning tools that are used to read content more effectively, such as read text aloud, simultaneous highlighting, and syllabification.

"I can produce content and nobody would know that a blind person had a role in that production."

Jack Mendez, Microsoft Office 365 User

These innovations are improved on feedback from a disability community of more than 1,000 persons worldwide that Microsoft actively tracks, which is delivered directly to the respective engineers. The engineers then try to respond with features that better enable access and increase productivity.

Jessica Rafuse
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Additional features are the intelligent alternate text and learning tools that are used to read content more effectively.

More than 1.2 billion people use Microsoft Office in 140 countries and in 107 languages. Skype Translator, Microsoft's telecommunications application software, can translate voice calls in nine languages.

Outlook, transferability, and funding
Customers with disabilities are encouraged to provide feedback via the organization's staff through disability forums or the company's Disability Answer Desk, which includes American Sign Language. Microsoft is a for-profit, publicly traded company and believes that imbedding disability inclusion and accessibility into the fabric of the company culture is essential to long-term success. The organization is helping other employers start similar programmes to develop more inclusive and accessible products and services, including non-profits. Additionally, Microsoft donates an average of $2.6 million in software each day to more than 86,000 non-profit organizations worldwide.

FACTS & FIGURES

- Microsoft actively tracks a disability community of over 1,000 members worldwide.

The fully accessible art museum

UNITED STATES / MUSEUM OF MODERN ART (MOMA) IN NEW YORK CITY

The Museum of Modern Art (MoMA), located in Midtown Manhattan in New York, recognizes the diversity of the public's abilities and needs, and offers a variety of programmes and services to ensure the accessibility of the museum and its collection. Approximately 60,000 people with disabilities made use of these programmes and services from 2014 to 2016.

Problem targeted
Many museums provide access into the building, but often the programming and displays are not accessible to individuals who have cognitive or sensory disabilities. Further, a crowded museum is often intimidating or impossible to navigate for these individuals.

Solution, innovation, and impact
MoMA is accessible to individuals using wheelchairs, who are deaf or hard of hearing, and who are blind. Notably, its access programmes are inclusive to the visually impaired by offering tours that provide the opportunity to touch and experience the art while asking questions and receiving audio descriptions of each work.

> Thanks to 'Meet me at MoMA', museums have increased people's quality of life."
>
> Halldora Arnadottir, PhD art historian

MoMA also provides programmes for visitors with Alzheimer's disease and other forms of dementia and their family members or care partners, as well as to visitors with developmental disabilities and their family members. The museum creates time and space for more quiet, focused viewing of exhibits while providing educators who understand the visitors' special needs and can provide answers and descriptions that make the art meaningful. MoMA's newest Community Program is Prime Time, aimed at deepening engagement between the museum and older adults. MoMA's Community and Access Programs have served approximately 60,000 individuals over the past three years through monthly programming.

Outlook, transferability, and funding
MoMA educators visit institutions around the world to train museum professionals, caregivers, teachers, and health care providers on the museum's pioneering work with the Alzheimer's population. It also hosts trainings at the museum with attendees e.g. in Oslo and Tokyo. MoMA's practices can be replicated by creating on-line and in-person trainings conducted by museum staff. In addition, a guide on best practices can be created to assist other museums with programming. These trainings and guidance tools can be presented at conferences and made available via web-based trainings.

MoMA's institutional fundraising revenue comes from individual, corporate, and foundation supporters, and thus funding for Access Programs comes from these same sources.

FACTS & FIGURES

- MoMA's Community and Access Programs serve over 18,000 individuals yearly. This number does not include individuals with disabilities who visit the museum every day using the audio description services, Braille materials, and other accessible features.

MoMA also provides programmes for visitors with Alzheimer's disease and other forms of dementia and their family members or care partners, as well as to visitors with developmental disabilities and their family members.

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On-demand accessible transportation in Chicago

UNITED STATES / OPEN DOORS ORGANIZATION – OPEN TAXIS

The Open Doors Organization (ODO), a non-profit organization based in Chicago, Illinois, was founded in 2000 to teach businesses how to succeed in providing services for people with disabilities while simultaneously empowering the disability community. Since 2013, ODO has operated Open Taxis, the centralized dispatch for Chicago's wheelchair accessible taxis. Open Taxis is a 24/7, 365 days a year operation with dispatchers on-site to assist with passenger ride requests and coordinate timely transportation among drivers, providing passengers with on-demand, accessible transport options in Chicago. In 2017 more than 300 accessible taxis were operating for Open Taxis.

Problem targeted

Before the start of Open Taxis there were fewer than 150 wheelchair–accessible van (WAV) taxis in all of Chicago.

"What you have done for this city is truly incredible. From a more personal element, it has allowed me to actually have a social life outside of work and allows me to travel more easily."

Lauren S., Open Taxis customer

Solution, innovation, and impact

In 2013 the city of Chicago centralized the dispatch of wheelchair-accessible taxis, and ODO was selected to operate Open Taxis. Passengers can now either call Open Taxis for service or use its smartphone app, which includes such key features as estimated wait time and an estimated fare quote. All drivers receive disability awareness training from ODO on how to communicate with and physically assist individuals with disabilities.

Since 2014, ODO has worked with Uber Technologies, Inc., helping to develop two programmes for passengers with disabilities: UberAccess, which uses wheelchair-accessible vehicles, and UberAssist, whose drivers are trained in stowing assistive devices.

Initially, it was important to overcome the lack of drivers interested in driving a WAV taxi. An incentive programme was put in place that rewards drivers with access to the short taxi lane at local airports, thus allowing them to skip the extensive wait (typically more than two hours) and quickly access potentially longer rides with larger fares. This programme successfully increased the number of interested drivers and the number of WAVs on the road, such that in 2016 Open Taxis had a total of 61,754 completed rides.

Outlook, transferability, and funding

Open Taxis has grown significantly since its start and now operates 330 WAV taxis with more than 400 drivers. The customer base has risen from a monthly average of just over 2,000 completed rides in 2013 to nearly 8,000 completed rides per month in 2017. With the city's goal of 400 WAVs on the road by the end of 2018, Open Taxis expects continued growth as accessible transportation becomes even more available.

ODO also supported the design of a purpose-built, fully accessible taxi now being built in Mishawaka, Indiana, and marketed as the 'MV-1' by the Vehicle Production Group. The MV-1 has been approved for use in paratransit fleets in major U.S. cities, including Chicago, New York, and Philadelphia.

The majority of the funding for Open Taxis comes from the city of Chicago and is spent on back-office operations, dispatcher salaries, and software maintenance. Moreover, Open Taxis is forming relationships with local rehab centres and hospitals to assist with non-emergency medical transportation – partnerships that are expected to bring in additional funding.

FACTS & FIGURES

Completed rides: 34,816 (2014), 35,765 (2015), 61,754 (2016)

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Online resource for parents of children with learning and attention issues

UNITED STATES / POSES FAMILY FOUNDATION – UNDERSTOOD.ORG

Understood.org is a free comprehensive website resource for parents of children aged 3–20+ with learning and attention issues. Created by 15 non-profit U.S. organizations, the site is managed and operated by the New York-based National Center for Learning Disabilities. It offers more than 2,500 pieces of expert-vetted content, five interactive tools, daily access to experts, and an on-site/social media community of parents and experts available in English and Spanish, as well as in read-aloud mode for parents who may have their own learning and attention issues.

Problem targeted
One in five people have brain-based learning and attention issues, such as dyslexia and attention deficit hyperactivity disorder (ADHD). Research shows that many parents feel alone and ill-prepared to help their children academically, socially, and emotionally.

Solution, innovation, and impact
Incorporating the principles of Universal Design for Learning, Understood.org translates expert information into easy-to-use, engaging, and practical information that helps parents on a day-to-day basis to assist children with learning and attention issues. One of the features, "Through Your Child's Eyes," provides five short game-like simulations allowing parents to experience their children's learning and attention issues, watch videos about children like theirs, as well as hear expert input.

"It is very lonely being the mom of a child with a learning difference. Having this kind of support means the world to me."

Mother of an eight-year old boy with dyslexia

Another tool called "Tech Finder" matches available technology with children's specific needs, while "Parenting Coach" summarizes expert behavioral advice collected over the years into proven, bite-sized tips. In addition, free daily online chats and webinars give parents access to renowned experts and the opportunity to ask questions.

Outlook, transferability, and funding
Together, the NCLD policy team and the Understood.org team bring the parent perspective to NCLD's critical policy work with national and state lawmakers. Understood.org has also begun to work on the ground by bringing parents together, supporting them, and mobilizing them to advocate at all levels.

Although designed for parents whose children attend U.S. schools, Understood.org has been discovered and embraced by people from around the world in both English and Spanish. In fact, about 40 per cent of all usage comes from countries other than the United States.

Understood.org is supported by private foundations.

Understood.org translates expert information into easy-to-use, engaging, and practical information that helps parents on a day-to-day basis.

FACTS & FIGURES

- From October 2014 to mid of 2017 more than 32 million visitors have used Understood.org resources, with a record of 2 million individuals in a single month in 2017.
- In March 2017 usage increased by 51 per-cent compared to the year before.

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see corresponding Life Story on page 119

Teaching the clicking of tongue technique to navigate

UNITED STATES / WORLD ACCESS FOR THE BLIND – FLASHSONAR

World Access for the Blind (WAFTB) is a non-profit organization located in Placentia, California, USA, which works to strengthen the physical, mental, and personal development of the blind and people with all ability challenges. The organization has developed Flashsonar, a technique that helps the visually impaired to use their own 'human sonar' to perceive their surroundings by using a clicking-of-tongue technique. Since 2001, WAFTB has provided individual and group trainings to more than 2,000 students.

Problem targeted
People with visual impairments or low vision often face difficulties self-navigating outside well-known environments, e.g., while traveling or simply walking down a crowded street.

Solution, innovation, and impact
World Access for the Blind trains blind and visually impaired persons the technique of human echolocation and calls its training Flashsonar (quite like the navigation of bats). The technique allows people to navigate using tongue-clicking and by responding to the reflected sound from their surroundings. The tongue click allows the ear and brain to work together to construct a 3-D image from reflected echoes of objects. The organization teaches people of any age, background, or ability, and it believes that anyone can learn to develop functional images of their environment to find more freedom by 'seeing' in a new way.

"Samuel picked up the clicking quite easily. We're so proud and hope he'll be able to choose the quality of life he wants, rather than having it mapped out for him."

Jackie Oldridge, speaking of her seven-year-old son

Additionally, the organization has developed new ways to use the long cane, which is more effective and easier to learn than the cane techniques traditionally taught to blind people. Innovations include the handshake grasp, which reduces the wrist and hand pain that blind people often suffer from when holding a cane in the traditional way; as well as the 'feather touch', whereby the tip of the cane does not drag or scrape along with its full weight, but instead glides lightly over the contours of the ground.

Since 2001, WAFTB has held 85 professional development workshops on Flashsonar and the long cane for more than 3,000 service providers in 39 countries.

Outlook, transferability, and funding
The project has expanded internationally by using the 'training-of trainers' model, which prepares blind trainees to instruct other blind or visually impaired persons. Further, the organization has published a textbook and a set of training materials to help students, families, and other instructors develop their own freedom with less dependence on institutions.

Flashsonar's funding comes from public grants (10 per cent), private donors and fundraising (25 per cent), and such project income as student tuition and service fees from agencies (65 per cent).

FACTS & FIGURES

- The project has been featured in over 150 major publications and broadcasts, reaching an audience of over 2 billion viewers globally in high-profile forums such as Ted, TEDx PopTech, and the Idea Festival.

The tongue click allows the ear and brain to work together to construct a 3-D image from reflected echoes of objects, in any environment.

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SECTION 3:

Innovative Policies 2018

on Accessibility

Fact Sheets

Fact Sheets from all 15 Innovative Policies 2018, ranked by country of origin

Life Stories

Persons with disabilities or their peers explain how selected Innovative Policies have changed their life

Introduction to Innovative Policies

ZERO PROJECT 2018 ON ACCESSIBILITY

The Zero Project research on Innovative Policies is based on the same methodology as the research on Innovative Practices (see previous section, *page 40*). Therefore, in this section only the differences between the two are explained, patterns of successful policy-approaches described, and the 15 selected Innovative Policies presented as Fact Sheets.

The Innovative Policy approach

The Zero Project defines "policies" as various forms of public policies, initiated and implemented by public authorities on all levels: supranational (e.g., treaties), national, regional, or local/municipal. It includes laws and all other forms of regulations such as tax or funding schemes, standards and other forms of legal requirements, action plans, and also supreme court jurisdiction.

This year the Zero Project received 55 Innovative Policy nominations from around the world. Of these, experts chose 15 policies through a multi-stage selection process. All the selected policies substantially improve the situation of persons with disabilities regarding accessibility.

Nomination process

The Zero Project initiated the nomination process by contacting the entire Zero Project network for their suggestions, and it specifically targeted 150 policy experts and encouraged them to put nominations forward. The Zero Project team used the same online nomination tool that facilitated nominations and the collection of supportive materials for both Innovative Practices and Innovative Policies, but created a unique nomination form for each.

To facilitate the process, there was an introduction video, an explanation on how to use the tool, and a detailed description of the nine accessibility themes. Further, the online tool enabled all evaluators to see and work with the initial nominations, a valuable advantage regarding first-hand and authentic information. The Zero Project received a total of 55 nominations from 30 countries. Based on the accessibility measures named in Art. 9 of the UN CRPD. 'Built Environment' was the highest represented policy topic, followed by 'Infrastructure' and 'Products and Services'.

Screening and shortlisting

During the first stage of the screening process the Zero Project research team eliminated all nominations that were incomplete or did not concern the subject of accessibility. Moreover, the team engaged with more than 100 experts to judge the nominations in this first evaluation phase. The Zero Project network then shortlisted 29 of the 55 Policies.

Research

The Zero Project research team began its review of the shortlisted nominations during the summer of 2017. It verified websites and supportive materials, engaged with the policy contacts to clarify uncertainties, and in some cases suggested improvements to better support their nomination. Network members with the appropriate language skills and local expertise helped to explain these documents and their relevance.

Selection

In late summer of 2017, more than 300 Zero Project experts were asked to vote on the shortlisted Innovative Policies and to choose the final round. The research team built regional and thematic clusters, and the experts selected the final 15 Innovative Policies on Accessibility 2018. Again, the experts had access to all initial and subsequent information through the online tool, thus ensuring a very high level of transparency.

DEFINITION OF INNOVATIVE POLICY

Innovative Policies have achieved identifiable improvements on the ground, and have demonstrated a positive dynamic of change that can be easily replicated in many countries to advance the implementation of the UN Convention on the Rights of Persons with Disabilities (UN CPRD). Like all innovation, some policies may be incomplete or dependent on other developments to maximize their impact. Some policies, no matter how positive, may also contain elements of old thinking. Since the implementation of the UN CRPD is a work in progress for all countries, these elements are taken into account in the overall assessment of innovation.

Common threads and solutions used by the Innovative Policies

When analysing the similarities and differences of the 15 selected policies, two threads (patterns, clusters, approaches, etc.) of successfully implemented policies appear: (1) city governments and (2) international treaties and standards.

1 Action plans of city governments

Some city governments have decided to make their urban environment fully accessible, which seems to be easier than to implement similar strategies on the country level. Municipal authorities put a legal framework into place and usually foresee a timespan of approximately ten years to reach their target. This approach tends to start with public buildings and transportation and then extend to infrastructure, products and services, ICT, and arts and recreation.

Most of these Action Plans on the regional level also include private buildings and incentives to make them accessible. The cities of:

- *Oslo (p. 138),*
- *Grenoble (p. 134),*
- *and Dubai (p. 145) use this kind of approach, which clearly resemble each other.*
- *On the province level – thus, between national legislation and city administration level – the policies of the Canadian province of Ontario (p. 131) also fit in here.*

2 International treaties and standards

The second group with many similarities consists of international treaties and standards. These agreements have been negotiated on a supranational level – in most cases over several years – and have been subsequently incorporated into national legislation.

These policies have a huge impact on people with disabilities since they define standards for everyday products, such as computers, tablets, and smart phones, but also influence other major areas, such as copyrights and tourism. The Zero Project network selection includes the following:

- *The Marrakesh Treaty (p. 130).*
- *The agreement that harmonizes ICT standards between the U.S. and the EU (p. 146).*
- *International Telecommunication Union guidelines on underground orientation systems (p. 135)*
- *The EU directive on the accessibility of websites and mobile phones (p. 133)*
- *The joint efforts of Spain, the UN World Tourism Organization, Fundación ONCE, and the International Organization for Standardization to create a voluntary standard-oriented framework for accessible tourism (p. 142).*

3 Other approaches: Built environment, transport system, rural areas, cinemas, etc.

- *One selected Innovative Policy from Paraguay defines national standards for physical accessibility, in cooperation with support from a national foundation and the United States Agency for International Development (p. 139).*
- *Uganda has initiated a national action plan to improve access to public buildings, with a focus on schools (p. 144).*
- *One policy from South Africa has targeted a more accessible transport system, focusing on implementation within 13 of the country's largest municipalities – thus, related again to a city-based approach (p. 140).*
- *Only one – thus really remarkable – Policy focuses on rural areas, whereby a province in Sri Lanka has initiated a programme to make public buildings and schools accessible by installing handrails and other guiding devices (p. 143).*
- *An Innovative Policy from Colombia is specifically targeted to make cinemas fully accessible, in a joint effort with civil society and the business sector (p. 132).*
- *Finally, the Family Courts of the province of Asturias in northern Spain have decided that all court communication will also be available in easy language (p. 141).*

FOR A TABLE OF ALL INNOVATIVE POLICIES
PLEASE SEE *PAGE 17*

Allowing for copyright exceptions to make books accessible for the blind

CANADA / WBU AND WORLD INTELLECTUAL PROPERTY ORGANIZATION / THE MARRAKESH TREATY

Working with the World Intellectual Property Organization (WIPO), the World Blind Union (WBU) and like-minded stakeholders drafted a treaty that would eventually become the Marrakesh Treaty in June 2013. The treaty allows for copyright exceptions to facilitate the creation of accessible versions of books and other copyrighted works for persons with visual impairments and print disabilities. As of late 2017, 33 countries have ratified the treaty and now allow copyright exceptions, and some members are already transferring accessible books across borders, particularly Canada and Australia.

Problem targeted

According to WIPO, less than 10 per cent of printed materials are available in accessible formats in developed countries and less than 1 per cent in developing countries. Current copyright laws in the majority of countries do not allow for the unrestricted reproduction of published materials into accessible formats, or for cross-border sharing of materials – for example, sharing by large accessible libraries.

Solution, innovation, and impact

The Marrakesh Treaty (formally "The Marrakesh Treaty to Facilitate Access to Published Works for Persons Who are Blind, Visually Impaired or Otherwise Print Disabled") was adopted in 2013 by WIPO, entered into force in 2016, and began to be ratified by countries as of mid-2014. As of late 2017, 33 countries have done so. Once incorporated into national domestic legislation, the treaty ensures an improvement in the availability of texts in an accessible format for visually impaired or print-disabled persons and for their circulation within the internal and international market. The Marrakesh Treaty places two key innovative limitations on copyright. First, it allows people with print disabilities to make accessible copies of books, or for "authorised entities" to do so on their behalf, without having to seek the agreement of or pay a royalty to the right-holders. Second, it allows authorised entities to supply accessible copies of books across borders.

In the 33 countries that have so far ratified (or acceded to) the treaty, print-disabled people have or will soon have access to a significantly higher number of published materials. Several countries have even begun sharing accessible works across borders, including Australia, Argentina, Brazil, Canada, and Chile. India, Israel, and Mexico also have ratified the Treaty

The Marrakesh Treaty also allows authorised entities to supply accessible copies of books across borders.

Outlook, transferability, and funding

The campaign is working to implement the treaty in all countries, especially the 173 countries that are party to the UN CRPD. WBU's Marrakesh Treaty Campaign is funded in large part by the Open Society Foundations (OSF), an international grant-making group supported by the philanthropist George Soros. That funding includes money allocated to regional projects, allowing for the six WBU regions (Asia, Asia-Pacific, Europe, Africa, North America/Caribbean, and Latin America) to implement their own campaigns.

Laws and regulations involved

- Marrakesh Treaty to Facilitate Access to Published Works for Persons Who are Blind, Visually Impaired or Otherwise Print Disabled , 27 June 2013

FACTS & FIGURES

- 33 countries have ratified the Treaty as of late 2017, but no country from the European Union as well as China, Russia, and the United States have done so to date.

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Towards an accessible Province of Ontario

CANADA – PROVINCE OF ONTARIO / ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)

The Accessibility for Ontarians with Disabilities Act (AODA) of 2005 is a legal framework for accessibility that applies to organizations in both the public and private sectors in the most populous province of Canada. The Integrated Accessibility Standards Regulation (IASR) under the AODA includes five standards (design of public spaces, employment, information/communication, transportation, and customer service) that aim to remove barriers and help Ontario reach its goal of an accessible province by 2025. There are over 200 requirements under the IASR. Most have been implemented, and the remaining will take effect by 2021.

Problem targeted
Due to persistent accessibility barriers, people with disabilities are frequently disadvantaged and isolated from the rest of society.

Solution, innovation, and impact
In 2005, Ontario passed the AODA, which provides a framework for developing accessibility standards for organizations in the public and private sector. Broad public consultation was a major part of the development of the accessibility standards under the AODA, and continues to be part of the standards' reviews.

The AODA applies to over 446,000 organizations with one or more employees. Furthermore, all government and public-sector organizations with at least one employee, and all businesses and non-profit organizations with at least 20 employees must submit a self-certified accessibility compliance report. These reports are submitted to the Ontario Government per a standardized schedule. Non-compliant organizations are subject to audits, inspections, and possible financial penalties or even prosecution. However, Ontario's approach to compliance and enforcement emphasizes proactive assistance, including education and public outreach. In 2014, the compliance rate for the private sector was approximately 38 per cent and the public-sector reporting rate was 100 per cent.

The AODA is a unique piece of legislation because it includes requirements to continuously review and improve the Act and its standards. Five years after their implementation, all accessibility standards must be reviewed by Standards Development Committees, which consist of at least 50 per cent people with disabilities as well as industry sector representatives.

FACTS & FIGURES

- As of 2016, over 446,000 businesses, non-profits, and public-sector organizations are required to meet the new accessibility standards.

Outlook, transferability, and funding
Ontario is the first jurisdiction in Canada with legislation that sets a clear goal and timeframe to meet accessibility goals in the areas that most affect the daily lives of people with disabilities. Organizations have the flexibility to implement accessibility standards under the AODA in ways that consider their existing business practices. For example, the requirements of the standards are being phased in over time to give organizations time to integrate accessibility into their regular business planning, and so that investments are spread out over many years while moving towards an accessible province by 2025.
Ontario does not provide funding to obligated organizations to fulfil their requirements under the AODA. However, the EnAbling Change Program provides grants to industry and sector leaders so they can educate their stakeholders about accessibility.

Laws and regulations involved
- O. Reg. 191/11: Integrated Accessibility Standards
- www.ontario.ca/laws/regulation/r11191
- www.theaccessibilityhub.ca

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see corresponding Life Story on page 136

Making the cinema accessible for all

COLOMBIA / MINISTRY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY OF COLOMBIA / CINEMA FOR EVERYONE

The Ministry of Information and Communications Technology of Colombia (MINTIC) set out a road-map called "Live Digital for the People" (*Plan Vive Digital para la Gente*) to promote access, effective use, and massive appropriation of ICT through policies and programmes to improve the quality of life of every Colombian and increase sustainable development. Based on this initiative, with the purpose of making the digital world accessible to all Colombians, MINTIC developed "Cinema for Everyone" (*Cine para Todos*) – a project that enables people with disabilities, in particular with visual and hearing impairments, to enjoy the cinema for free and even create their own movies.

Problem targeted

In Colombia the attendance of people with disabilities at places of entertainment, specifically cinemas, is low because the audiovisual content is not accessible.

Solution, innovation, and impact

MINTIC is reducing regulatory and tax barriers to facilitate the development of accessible infrastructure and the availability of telecommunications services, as well as prioritizing state capital investments into digital accessibility. This encourages the private sector to expand their infrastructure and offer more services.
For the Cinema for Everyone project, MINTIC has partnered with the Saldarriaga Concha Foundation (a Colombian foundation that works for the inclusion of all people) to implement the various elements of the strategy, and with Cine Colombia (the largest film distribution company in the country), which has agreed to make their venues accessible.
Three elements have been incorporated to make film content more accessible:
1. Audio description enabling people with visual impairments to listen by means of a system installed at the cinema or a free app for mobile phones, with a description and narration of the complete plot and content appearing on the screen.
2. Sign language interpretation, using a device in the cinema or a free mobile phone app in Colombian sign language.
3. Enabling deaf or visually impaired people to read subtitles displayed in high contrast colors on screen.

Another innovative component of the project is that the users can also participate as creators of movies. In association with Smart Films (a festival of films made with smartphones), Colombians with any type of disability can make short films of not more than five minutes with their cell phones, and thus compete for a prize of 25 million pesos (about €7,000). In 2016, 336 people with disabilities participated in the festival, creating 59 short films.

As of November 2017, 21,707 people had attended accessible films in Colombia, where they are played in 13 cinemas on the last Saturday of every month.

Outlook, transferability, and funding

The methodology developed in Cinema for Everyone is readily adaptable to other contexts.

During 2017, MINTIC developed an app and a free download that allows people with disabilities to enjoy a wide catalogue of audio descriptions, sign language, and subtitles corresponding to the audio-visual contents developed by this project. In 2017 over 3,500 people have downloaded the app, and users are expected to increase over time.

MINTIC is advancing a sustainability study for the project, which should help to identify what actions are needed to involve more cinemas, and to help the project become financially self-sufficient. Currently, it is only financed by the government.

Laws and regulations involved

- Live Digital for the People, a public initiative
- Law 361 (1997): Disability Law
- National Development Plan, 2014–2018

FACTS & FIGURES

- From its start in 2013 until late 2017 more than 76,000 people with disabilities have benefitted from Cinema for Everyone.
- The project has been rolled-out in 25 of the country's 32 departments.
- In 2016, 336 people with disabilities participated with 59 short films in a national film festival.

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Minimum standards of websites and mobile apps by the public sector in all 28 EU-countries

EUROPEAN UNION / DIRECTIVE ON THE ACCESSIBILITY OF THE WEBSITES AND MOBILE APPLICATIONS OF PUBLIC SECTOR BODIES

In October 2016 the European Parliament and the Council of the European Union passed a directive that requires public sector bodies of all 28 EU member states to provide accessible websites, along with ensuring that media and documents available on the websites are also accessible. Member states must make their content accessible or provide a public explanation where this has not been done, and must also introduce a monitoring and reporting framework to check compliance by 2021.

Problem targeted

Many public-sector websites and applications are not accessible to persons with disabilities, despite the continuing move towards the provision of government information and services through the Internet.

Solution, innovation, and impact

The European Parliament and the Council of the European Union has passed a directive (a regulation that can be compared to a law on the country level) making it compulsory for the 28 EU member states to make public-sector websites and mobile applications accessible by 2021. Directive (EU) 2016/2102 covers accessibility for all user groups and addresses four principles of accessibility:

- Perceivability: Information is presented in ways that the user can readily perceive
- Operability: User interface and navigation must be operable
- Understandability: Information and operation must be comprehensible to the user
- Robustness: The content must be sufficiently robust to be interpreted reliably by a wide variety of user groups

The directive sets a minimum standard for web accessibility equivalent to WCAG 2.0 AA. EU member states must bring into force the laws, regulations, and administrative provisions of the directive by September 2018, and ensure that all websites are compliant by September 2020 and all mobile applications by June 2021. Each member state must also periodically monitor the compliance of websites and mobile applications of their public-sector bodies and create a mechanism to correct any deficiencies.

Outlook, transferability, and funding

Directive (EU) 2016/2102 has the potential to support around 80 million persons with disabilities living within the EU who have a variety of access needs when obtaining public-sector information. Access to information will increase between 2018 and 2021 as the member states put into place required activities, such as promoting and facilitating web accessibility training programmes for stakeholders, and appointing an enforcement body to allow citizens to challenge authorities who do not fulfil the law.

The directive is available publicly on the EU website and can therefore act as a suitable template for other countries or regions around the world.

The costs related to the directive are the responsibility of each member state.

FACTS & FIGURES

- 28 EU member states must bring into force the laws, regulations, and administrative provisions of the directive by September 2018.
- All public-sector body websites must be accessible by September 2020 and all mobile applications by 2021.

Laws and regulations involved

- Directive (EU) 2016/2102 of the European Parliament and of the Council on the accessibility of the websites and mobile applications of public sector bodies.

Covering the four principles of accessibility: Perceivability, operability, understandability, and robustness.

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The Accessibility Strategy of Grenoble

FRANCE / MUNICIPALITY OF GRENOBLE / L'AGENDA D'ACCESSIBILITÉ PROGRAMMÉE

As early as the 1970s Grenoble, a city of some 450,000 inhabitants located in the French Alps, began to address accessibility issues concerning public transport and the public road system. In 2015 the city developed a nine-year plan to make the city fully accessible – including all areas of public institutions, schools, and sports and leisure facilities. Moreover, the entire public transport system is made accessible under the guidance of the SMTC (the local transport agency) of Grenoble-Alpes Metropole. In 2017 a multifunctional public transport station has been opened, and 86 per cent of public bus facilities have been made fully accessible already.

Problem targeted
Grenoble wants to make all aspects of public space fully accessible by 2024. As of 2017 approximately 40 per cent of all public buildings were still inaccessible.

Solution, innovation, and impact
The official Grenoble Accessibility Agenda (*L'Agenda d'accessibilité programmée – Ad'Ap*) covers the following areas:

- Built environment and public spaces
- Infrastructure and transport
- Information and communication
- Public services and employment

Regulations regarding the built environment and public spaces concern all public buildings and foresee the installation of audio descriptions and interfaces for sign language via the Internet in addition to physical adaptations. Schools have the highest priority to become accessible.

To increase safety, especially among those with a disability, the city has introduced a reduced speed limit of 30 km/hour in the entire metropolitan area, except for some major connection roads. Other actions include orientation lines on pavements and pedestrian traffic lights with sound.

Every bus and tram operator receives 2.5 hours of annual training on issues of disability and aging. Beyond the existing level of accessibility, the station platforms have elevators. UD principles are extended to the whole travel chain, with priority on marking, signage, and ease of travel. In March 2017 the city opened the Multimodal Change Centre, which is a multiservice road and railway station based on Universal Design principles.

Regarding information and communication, the city has made its website partly accessible for people with visual impairments. Furthermore, sessions of the city council are translated simultaneously into sign language; and the city offers an emergency number with sign language for people with hearing impairments.

The cable car to the Grenoble Bastille and station are fully accessible.

Approximately 9 per cent of the total city workforce are people with disabilities, including 20 employees specifically dedicated to disability/accessibility issues.

Outlook, transferability, and funding
In public facilities, the city has made it an obligation to perform accessibility work within the next three years, with penalties (€1,500) for failure to do so.

The objective is to cover all 49 communities in the metropolitan area by 2024. The accessibility agenda of the City of Grenoble has a budget of €12 million. It is dedicated to the accessibility of 220 municipal buildings: schools, cultural facilities, libraries, and gymnasiums.

Laws and regulations involved

- The Accessibility Agenda (L'Agenda d'accessibilité programmée – Ad'Ap)

FACTS & FIGURES

- 100 per cent of all tram stations were fully accessible by end of 2016, as well as 80 per cent of the public spaces in the city centre and 64 per cent in the metropolitan area.

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ITU standard on indoor audio navigation system for the blind

GLOBAL / INTERNATIONAL TELECOMMUNICATION UNION / INTERNATIONAL STANDARD FOR INDOOR AUDIO NAVIGATION

Wayfindr, a UK-based project and standard to make audio navigation systems accessible for persons with visual impairments, was approved in March 2017 as the first Open Standard for indoor audio navigation by the International Telecommunication Union (ITU), a United Nations agency. It becomes the world's first internationally recognised standard for accessible audio navigation. Adoption of the standard gives governments, companies, and NGOs around the world an accepted benchmark along with a host of resources to implement the navigation technology in their own organizations.

Problem targeted

According to a 2012 report by the Royal National Institute of Blind People, 43 per cent of persons with vision impairments would like to leave their home more often, but traveling independently through indoor built environments such as public offices and transport terminals can be a difficult and intimidating experience.

FACTS & FIGURES

- The technology is currently tested in five countries: Australia, Norway, Spain, the United Kingdom and the United States.

Solution, innovation, and impact

Wayfindr is an Open Standard for indoor navigation technologies that provides audio instructions to users' smartphones to help them find their way through built environments. Wayfindr is also the name of the London-based non-profit organization that created the Open Standard, based on the principles of user-centred design and extensive user research. An audio navigation system can use a wide range of technologies, such as Bluetooth low-energy beacons set up at fixed locations to broadcast information/directions regarding the users' surroundings, normally to a smartphone app: for example, "You are halfway down the ramp to the ticket hall – turn left and walk down the stairs – there are nine steps."

The International Telecommunication Union (ITU) – the United Nations specialized agency for information and communication – approved the technology as an international Open Standard in March 2017. By becoming an ITU standard, the technology is recognized as the benchmark for indoor audio navigation by all 193 UN member states and 800 technology companies, including such major companies as Google and Microsoft.

The standard provides all interested parties with a toolkit of information to help implement an accessible audio navigation system in their own countries or to develop products and services that work with the technology, such as mobile phone applications. The toolkit provides factual information, such as details on vision impaired people; recommendations for best practices, such as on installing the beacons; guidelines on development; suggestions for further investigation; and considerations for app development.

Outlook, transferability, and funding

Trials of the technology were initially carried out on the London Underground system, and additional trials have since taken place in Barcelona, Oslo, Sydney, and Venice.

Wayfindr plans to continue to improve the standard and welcomes input from stakeholders. Its overall aim is for the standard to accelerate the universal adoption of indoor audio navigation as a mainstream feature of all built environments and public transport infrastructures.

Wayfindr is also developing a software accreditation check that will allow venues and apps to show they comply with the standard, and a training course for rolling-out the navigation systems.

Laws and regulations involved

- ITU Recommendation ITU-T F.921

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see corresponding Life Story on page 137

Life Stories from Canada, Norway, Sri Lanka, UK, and USA

THE STORY OF EDIT GRENI, USER OF A PUBLIC COMMUNITY CENTRE IN OSLO

"It does me so much good to join in and be able to move to music."

Oslo, Norway

My name is Edit Greni and I am 85 years old. I have been a widow for 20 years and retired for 18 years. It is good to have a community centre where others who live in similar situations can meet. I like going there, and I visit the centre several times a week. During the past year I have been participating in a project offering dance activities, where we also learn about ballet productions taking place in the city. It does me so much good to join in and be able to move to music. When we dance we engage with our whole body, regardless of our physical capability. But we are also interacting with each other communally. It is as if we become one when we hold hands. My desire is to dare to do even more. It is important, therefore, that I continue to stay active. When we are old it can seem like it is predetermined that we should just sit there, but I am still playful and want to continue to draw upon what is inside me.

See corresponding Policy on page 141

THE STORY OF SHASHIKA CHATURANGA, A BENEFICIARY OF THE UVA PROVINCIAL COUNCIL PROGRAMMES

"Now I am managing my own automobile repair agency."

Moneragala, Sri Lanka

My name is Shashika Chathuranga. I am 33 and married. I was very keen on becoming an automobile mechanic and had an opportunity to engage with a well reputed automobile repair agency in Buttala. One day, however, I got a headache and fell down, and it turned out that I was partly paralyzed for a while. After having received therapy, however, I am now capable of walking and of working with my right hand. However, this situation resulted in my unemployment, which was a very hard experience since I had a family to take care of.

Even though I could still use my skills in automobile repairing, agencies were reluctant to hire me because of my disability. I decided, therefore, to open my own repair agency at home – with the great assistance of my wife. The one problem was that I needed funds to buy tools, and that is where the Disability Inclusive Programme of the Uva Provincial Council came to my assistance. Now I am managing my own agency, and I am planning to extend my services further to the Okkampitiya city area as well. When I became paralyzed, I thought it was all over for me and nothing was possible. Now I want to emphasize that nothing is impossible!

See corresponding Policy on page 143

THE STORY OF GAIL CAMPBELL, ORANGEVILLE TOWN COUNCILLOR AND CHAIR OF "ACCESS ORANGEVILLE"

"We now have ramps in both our town pools – and a chairlift."

Orangeville, Ontario, Canada

As a member of the Orangeville Town Council and Chair of "Access Orangeville," I am proud to say that the Accessibility for Ontarians with Disabilities Act is being implemented very methodically, such that everyone knows that in the year 2025 our province is going to be totally accessible. It is also being done in a progressive, orderly way so that people are able to accommodate the transition.

I believe the Accessibility for Ontarians with Disabilities Act is making all Ontarians aware that everyone has the right to enjoy all the services that our province offers. To cite just one example, in our town of Orangeville we now have ramps into both of our pools. We also have a chair lift that can help people with disabilities get into either pool as well as personal flotation devices for every size individual.

See corresponding Policy on page 131

THE STORY OF KEVIN, USER OF WAYFINDR

“I felt empowered with the accuracy of the directions in the Underground.”

London, United Kingdom

My name is Kevin. Currently, blind and partially sighted commuters like me have to rely on station staff to assist them onto their train. They also have to be met at their destination by someone. Wayfindr was born out of a dream for the visually impaired to be able to travel completely independently on the London Underground.

Using Wayfindr is an awesome experience! Thanks to the audio instructions provided using the system’s Open Standard, I know exactly where I am and where to go at all times. At Pimlico Station, for example, I turn right, walk ten paces, and just as I step onto the platform Wayfindr confirms my arrival. All I have to do now is wait for the next train, confident in the knowledge I am on the right platform.

Before testing Wayfindr I’d never been to Pimlico, so the fact that I can do this guided only by a mobile app is a really big deal. It could save me an immense amount of time and make my journey much less stressful, given that I or any other visually impaired commuter does not have to worry if there is a staff person available to assist us, a particular problem at night.

Using Wayfindr, I am empowered by the accuracy of the directions provided, and I really feel like any other commuter walking on my own to catch a train.

see Innovative Polices on page 137

THE STORY OF DANYL, USER OF THE TONGUE-CLICKING TECHNIQUE, WRITING TO WORLD ACCESS FOR THE BLIND

“A few weeks later I was using the little vision I had, together with the white cane and echo location.”

United States

Dear World Access for the Blind,

My name is Danyl and I am 12 years old. I was a normal kid, running around with my friends and biking through the nearby hills, until one day, when I was eight, I woke up in the middle of the night. It was hard to breathe so I woke my dad and he phoned an ambulance. The last thing I said was: “I’m dying, dad! I’m dying!” I was on life support for several weeks, and for months afterwards I was completely blind and couldn’t walk at all.

The first week of school in August 2007, three years later, you brought Kerrie and Alex to my primary school. They were blind too, and I think you were training them to be teachers like you. By then, I still didn’t really know a lot about what had happened to me. When you guys first told me what you were about, I honestly thought you were joking. But by the end of the first day, I thought what you guys taught me was brilliant! A few months later, when you and Alex came back to my school, I had practiced my click and was able to do it properly, and I was using the hiking stick and learning the basics of the white cane. I found it really hard at first mixing all three – clicking, walking with the hiking stick, and using the cane. But when you and Alex returned again the next summer, I was surprised by how much walking and clicking we practiced, and I found it became easier.

A few weeks later, I was a lot more confident. When I first came around in the hospital and I really wanted to walk and see again, I didn’t think that all of this would be done for me. Now I definitely think I will be able to walk again and know my ability to see is improving, so I am really, really happy with all the help that I’ve received.

See corresponding Practice on page 69

Towards a universally designed city of Oslo in 2025

NORWAY / CITY OF OSLO – DEPARTMENT FOR HEALTH AND SOCIAL AFFAIRS / COMPREHENSIVE UNIVERSAL DESIGN PLAN BY 2025

Oslo Kommune (the administrative authority of Oslo, Norway) has developed a comprehensive plan for Universal Design (UD) covering transportation, communication, construction, public property, outdoor areas, and ICT, with the goal that all municipal agencies and companies will implement UD requirements in their areas of responsibilities by 2025. The strategy requires all new government-operated buildings, parks, public spaces, and transport systems to have UD implemented from a project's inception and to be included in the overall building costs. In 2017 most of government buildings were already fully accessible.

Problem targeted

Persons with disabilities often have less access to public services, information, and ICT than their non-disabled peers.

Solution, innovation, and impact

In 2009 the city of Oslo adopted a comprehensive plan for UD, which in 2014 became the "Common Principles of Universal Design." The plan covers all transportation, communication, construction, public property, outdoor areas, and ICT that fall within the remit of the city authority.

The main goal of the plan is for all municipal agencies and companies to implement UD requirements within their municipal responsibilities by the end of 2025, and for accessible ICT to be implemented by 2021. Each agency is developing its own action plan and measurable objectives, which need to be documented in their annual reports to the City Council. The municipal agencies cooperate with one another, for example, through a network of employees who exchange experience and knowledge and run courses and seminars to share good practice.

An important prerequisite of the plan is the involvement of civil society, NGOs, persons with disabilities, the municipal councils on disability as well as the central council for seniors.

Oslo has already implemented numerous UD measures, including information provided on the city's website both in audio format and in easy language. Most of the government-operated buildings have now been made accessible, parks and beaches have been universally designed, and the subway and bus systems have been updated. The city also boasts a new accessible viewpoint among the treetops called Stovner Tower – a 260-meter ramp footpath featuring Braille instructions and a tactile map, designed by Link Arkitekt.

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Accessible playgrounds are also covered by the strategy.

Outlook, transferability, and funding

The plan continues to be rolled-out as the city aims for the 2025 implementation deadline. Other cities can benefit from the plan, which is available on the WHO website as an example of an "age-friendly city."

For all new projects the cost of Universal Design is factored into the overall building costs. However, for some smaller accessibility upgrade projects, some of the teams or departments have successfully applied for grant funding from external organizations. The City Council allocates approximately $1.85 million each year to the "Handicap Project" – an initiative to coordinate renovation and city accessibility projects.

Laws and regulations involved

- Common Principles of Universal Design 2014 https://uu.difi.no/om-oss/english

FACTS & FIGURES

- Information appears on the city of Oslo website in easy language and audio format.
- The plan calls for all municipal agencies and companies to implement Universal Design requirements within their municipal responsibilities by the end of 2025.

see corresponding Life Story on page 136

Standards for physical accessibility

PARAGUAY / SARAKI FOUNDATION & USAID / SEVEN LAWS IMPROVING ACCESSIBILITY STANDARDS

Physical accessibility standards in Paraguay were significantly improved with the passage of seven new laws and decrees between 2009 and 2015. The Education Ministry, the National Standardization Institute, and the National University's School of Architecture jointly defined standards for physical accessibility; and with additional guidance and support from the Saraki Foundation and the U.S. Agency for International Development, legislative and regulatory reforms, communication campaigns, and training were initiated to raise awareness on the elimination of accessibility barriers and to promote accessibility in civic participation, education, and the labour market.

Problem targeted

There is a lack of physical accessibility in private and public buildings, sidewalks, public transportation, schools, and polling stations in Paraguay. Additionally, there are attitudinal barriers to inclusion, such as the lack of awareness as to the rights of people with disabilities and the lack of employment opportunities.

Solution, innovation, and impact

Under the guidance of the Saraki Foundation – a private foundation dedicated to implementing the rights of persons with disabilities – and with the financial support of the U.S. Agency for International Development (USAID), the Government of Paraguay passed seven laws and decrees in support of persons with disabilities between 2009 and 2015. Law 4.934/13, for example, mandates that all public and private space must have adequate infrastructure so that people with disabilities may access them. This led to training courses for more than 600 bus conductors and incentivised the adaption of 250 public buses in the capital, Asuncion, by installing hydraulic lifts for wheelchair users. The access to existing public buildings remains a challenge, but the new accessibility norms are implemented in new public administration buildings. The private sector is incentivised to make their buildings accessible by fiscal benefits rather than obligations, which are more difficult to administer.

In addition to USAID, the project was funded and is being jointly implemented by a diverse array of stakeholders, including national and local governments, the private sector, and the School of Architecture. An important innovation was the "Works that Do Not Exist" campaign, which consisted of hosting public events to "launch" non-existent accessibility features, such as accessible doors, lifts, bathrooms, and sidewalk ramps, to highlight the absolute lack of accessibility. Moreover, an inclusive modelling agency named "IN" was created to include models with disabilities in the Asuncion Fashion Week, thus breaking down barriers in the fashion industry.

FACTS & FIGURES

- To date, 115 companies have implemented physical accessibility reforms.
- In addition to the 250 accessible buses in the capital, 240 are in operation throughout the country.

Outlook, transferability, and funding

The core project is funded by USAID, through a grant to the Saraki Foundation, whereas the Government of Paraguay and the private sector finance the specific accessibility measures. The government also funds accessibility reforms in public schools/buildings and polling stations. Private schools and companies fund their own accessibility measures, as mandated by the law.

Saraki believes that some of the activities can be replicated through regional networks, such as the Latin-American Regional Inclusive Education Network.

Laws and regulations involved

- Law 3.585/08, Law 4.720/12, Decree 10.514/13, Law 4.934/13, Law 4.962/13, Law 5.136/13, Decree 5.507/16; National Disability Plan 2015 – 2030
- National Disability Secretariat
- The National Disability Council

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Accessible public transport strategies for 13 major municipalities

SOUTH AFRICA / DEPARTMENT OF TRANSPORT – PROVISION OF ACCESSIBLE PUBLIC TRANSPORT SYSTEMS IN SOUTH AFRICA

The South Africa Department of Transport has developed a national strategy to guide cities in providing accessible public transport systems. The strategy includes new Universal Design standards for the whole travel chain and assists each city with implementing them, while also tracking progress. Implementation is being tested in 13 major municipalities; and as of mid-2017 four cities have been implementing the standards, and another six will implement them within the next two years.

Problem targeted

Persons with disabilities have many problems using public transport systems Due to a history of colonial and apartheid spatial planning, social divisions are even worse in South Africa than in other countries.

Solution, innovation, and impact

The South Africa Department of Transport has developed a strategy to help guide, support, and monitor municipalities in the implementation of accessible public transport systems. The strategy covers both access to information and to the services themselves for persons with physical, psychosocial, intellectual, neurological, and/or sensory disabilities.

The strategy was developed in three phases: (i) from 2007 to the 2010 (in anticipation of the FIFA World Cup); (ii) up to 2014; and (iii) up to 2020 and beyond.

The strategy lists minimum standards to be reached by each deadline, for example, all existing and new entry service provides to have undertaken accessibility training by 2014. It also details the responsibilities of each stakeholder in implementing the strategy, including planning authorities, public transport operators, and vehicle manufacturers. The implementation of accessibility measures in each municipality is monitored centrally by the Department of Transport through regular meetings, readiness inspections, and the gathering of data on implementation of the "White Paper on the Rights of Persons with Disabilities" (released in 2015).

As of mid-2017 four of the 13 municipalities have implemented new public transport systems, meaning that these new systems already operate in line with the policy. Cape Town and Johannesburg have 291 and 277 accessible buses, respectively, and are making gradual improvements to public transport infrastructure. There is also a new rail system and the existing system is being upgraded. Six further cities are already implementing the strategy.

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FACTS & FIGURES

- Four cities have implemented the strategy as of 2017. Six further cities have completed plans and will begin implementation in 2018–2019.

Outlook, transferability, and funding

Once all 13 municipalities have implemented the strategy, over half the residents of South Africa will have access to accessible public transport.

The strategy has been used as a best practice example within the country, highlighting inequalities in existing standards outside the transport sector and assisting in other areas where legislation has not been implemented properly.

Each municipality is responsible for funding its own projects through the "Equitable Share" programme, which provides proportional funding from the central government. Additional funding has been provided through a national government grant scheme for the 13 cities that aims to reverse the race and class separations caused by apartheid policies.

Laws and regulations involved

- The Implementation Strategy to Guide the Provision of Accessible Public Transport Systems in South Africa

Cape Town and Johannesburg have 291 and 277 accessible buses, respectively.

Court verdicts and summonses in easy language

SPAIN / PLENA INCLUSIÓN, TRIBUNAL SUPERIOR DE JUSTICIA DE ASTURIAS AND THE GOVERNMENT OF THE PRINCIPALITY OF ASTURIAS

The Family Court in Oviedo, in the Spanish province of Asturias, has begun drafting copies of court verdicts and summonses in easy language for persons with intellectual disabilities. The courts send their official documentation to Plena Inclusión Asturias, a regional office of the national NGO Plena Inclusión España, that supports persons with intellectual disabilities, which then converts the documentation into easy language to share with the intended recipient. Following a successful pilot in Oviedo, an agreement has been reached with the provincial government to extend the system to all 27 courts in the province. As of late 2017, about 30 documents have been converted.

Problem targeted
Complex court verdicts and summonses can be difficult to understand, particularly for persons with intellectual impairments.

Solution, innovation, and impact
The Family Court in Oviedo was among the first in Europe to draft copies of verdicts and summonses in easy language for persons with intellectual disabilities. A pilot was carried out in cases of proceedings for modification of legal capacity.

Once the official decision is written, the court sends the paperwork to Plena Inclusión Asturias, which converts it into easy language. The easy-language document is then validated by an expert team, which includes persons with disabilities. If these persons do not understand any part of it, it undergoes further revision. The final converted document is then checked by the court and sent to the recipient. This allows persons with intellectual disabilities to take part in court cases and to better understand what has happened in the proceedings, for example, what modifications have taken place in their legal capacity. Since implementing the process, all cases at the Family Court of Oviedo that involve a person with an intellectual disability have the verdicts accompanied by the text in easy language. In addition, a similar easy-language model has been developed for court summons. Around 30 documents have been converted as of late 2017.

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FACTS & FIGURES

- 30 documents will be converted by 2017
- The policy has been extended to all 27 courts in the Asturias region in 2018.

Following the pilot, an agreement was reached with the regional government of Asturias to secure funding to extend the system to all 27 courts in the region.

Outlook, transferability, and funding
Contacts have been established with the Spanish Council for Judiciary with the goal of rolling-out the translation process across the whole country. The regional authorities of Andalucía, Aragón, La Rioja, Madrid, Murcia, and Valencia have all begun work to reproduce the initiative, alongside the other regional offices of Plena Inclusión.

The project has been initially funded by Plena Inclusión Asturias, but the agreement with the regional government of Asturias has secured funding so that it will pay for the conversion of documents going forward.

Once the official decision is written, the court sends the paperwork to Plena Inclusión Asturias, which converts it into easy language.

A global voluntary framework for accessible tourism

SPAIN / UNWTO, FUNDACIÓN ONCE AND ISO / ISO 21902, A GLOBAL STANDARD FOR ACCESSIBLE TOURISM FOR EVERYONE

Since 2016, Fundación ONCE, a leading Spanish foundation supporting people with disabilities, and the United Nations World Tourism Organization (UNWTO) have been driving the creation of a global standard "Accessible Tourism for Everyone." The standard will provide clear guidelines for tourism planning and destination management, with specific recommendations and requirements for accessible tourism. The TC 228 Technical Committee, a body tasked with tourism and related services, is drafting the standard within the framework of the International Standards Authority (ISO).

Problem targeted

Despite the existence of some accessible tourism standards, there remain large gaps from country to country. Lack of knowledge of the existing tools and solutions is further complicated by contradictory information on different standards between countries and regions.

Solution, innovation, and impact

The UNWTO convened this project so that all people can participate in and enjoy tourism experiences. By developing a global standard, accessible tourism can be delivered systematically, as the guidelines and specifications guarantee that materials, products, processes, and services are fit for their purpose. This project is a systematic inventory of technical criteria, recommendations, and requirements within the tourism industry, whose international standardization regarding accessibility is still pending.

Although still in the drafting stage, recommendations will include both general and concrete measures relating to such aspects as travel planning, information, and communication. This will help address issues such as inaccessible booking services and their related websites and the lack of accessibility training among professional staff.

All the agents linked together in the tourism chain will receive recommendations to make their products and services accessible and usable for all people, regardless of their capabilities. The impact will be more settings, products, and services that are designed for the enjoyment and use of everyone, thereby increasing accessible tourism worldwide. Accessible tourist destinations will become more dynamic, positioning themselves ahead of those that do not take account of the issues covered in the standard.

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Outlook, transferability, and funding

To date, the TC288 Technical Committee has met several times to develop and draft the standard, most recently in May 2017 in Panama. The meeting included representatives from Argentina, Austria, Canada, Ireland, Panama, Spain, and the United Kingdom, as well as from several tourism bodies such as the European Association of Tour Operators and Travel Agencies.

The standard should be completed in 2018, at which time it will be submitted for approval via consensus by the 162-member countries of the ISO. In 2019 it will be published and made available to non-ISO members.

The standard is designed to be transferable such that any country can adopt it at the legislative level. As the requirements for accessible tourism will be detailed, public authorities can immediately implement them.

At present, project expenses are related to consultancy and travelling. Fundación ONCE contributes its own resources and receives financing from the Spanish Government through the Royal Board on Disability.

Laws and regulations involved

- The standard is to be called 'ISO 21902 – Tourism and related services. Accessible tourism for everyone: Requirements and recommendations.'

FACTS & FIGURES

- Standard is expected to be approved via consensus by the ISO in 2018 and then published in 2019. It foresees certification of built environment, transport, as well as urban, rural, and natural environments.
- Has potential for global impact and significantly increased tourism.

Creating accessible buildings in rural, less developed areas

SRI LANKA / UVA PROVINCIAL COUNCIL, MONERAGALA / AGE FRIENDLY & DISABLED FRIENDLY CITY

Moneragala is a populous, less developed district in the Uva province of south-east Sri Lanka, with approximately 450,000 inhabitants. In 2011 the Uva Provincial Council – the provincial legislative assembly – developed a policy to achieve universal inclusion in this district by 2018, starting with the city of Wellawaya. The policy is addressing the gaps in accessibility to the built environment as well as targeting the inclusion of persons with disabilities and older persons. Since the start of the project, approximately 50,000 persons with disabilities have benefitted.

Problem targeted
Despite the existence of accessibility regulations, Sri Lanka continues to lack inclusive environments.

Solution, innovation, and impact
The Uva Provincial Council recognised the relationship between ageing and disability and initiated efforts to address inclusion in a holistic manner and in a way that is feasible within a rural setting. The concept encompasses guidelines of the UN CRPD as well as the national accessibility regulations of Sri Lanka. The project was the first instance in Sri Lanka where a legislative body specifically allocated funds for accessibility and inclusion, and includes the cooperation of provincial authorities, disabilities organizations, and local communities.

The concept was first developed in the city of Wellawaya, attempting an inclusive city in a rural environment. Wellawaya joined the Global Age-friendly Cities network of the World Health Organization, and shortly thereafter the project was expanded to the entire district of Moneragala with additional categories of inclusion. Many public buildings in the district were made accessible, including schools, polling stations, and religious sites.

In order to raise interest in the subject, the Council conducted awareness campaigns and provided staff training to address various inclusion topics. Notably, the project encouraged the participation of persons with disabilities.

Outlook, transferability, and funding
In the future, the policy foresees greater access and support for education, and the provision of self-employment support for families of children with disabilities. There are also measures planned for an inclusive labour market.

The strategy is expected to be replicated at the national level in several selected districts in Sri Lanka, and will be driven by the Presidential Secretariat of Sri Lanka and through cooperation with local councils, provincial governing bodies, and the national government.

Funding through the Uva Provincial Council was $46,000 in 2016 and $29,000 in 2017 (e.g., the cost for the installation of handrails in a building is only $20). Technical support is being provided by WHO and the International Foundation for Electoral Systems.

FACTS & FIGURES

- From 2016 to 2017, 46 polling stations and six religious places were made accessible.

Laws and regulations involved
- Age Friendly/Disabled Friendly City, Wellawaya Division, Moneragala District (2013–2018)

The project was the first instance in Sri Lanka where a legislative body specifically allocated funds for accessibility and inclusion.

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see corresponding Life Story on page 136

Binding and effective laws for the construction of accessible school buildings

UGANDA / BY-LAW ON ACCESSIBILITY IN THE SUB-COUNTY OF NABBALE

In 2010 the Uganda National Action on Physical Disability (UNAPD), a non-profit organization, developed and launched the Accessibility Standards in line with Article 9 of the UN Convention on the Rights of Persons with Disabilities. In an effort to promote the effective implementation of the standards at the local level, the local government of Nabbale, a sub-county in the Mukono district of Uganda, has developed the By-Law on Accessibility. Since its passing in 2016, seven newly constructed schools have been built in line with the accessibility needs of children with disabilities.

Problem targeted
Despite the fact that Uganda is among the few countries in Africa with the most disability-friendly legal frameworks, such as the National Policy on Disability (2006), the Accessibility Standards (2010), and the Building Control Act (2013), accessibility standards at the local level are still not always implemented accordingly by the relevant stakeholders in the construction industry.

Solution, innovation, and impact
The Accessibility Improvement Project was initiated by the UNAPD to support persons with disabilities at the local level in the Nabbale sub-county of Uganda's Mukono district. By working closely with the respective local government officials, the organization was able to ensure an accessible environment for all, including children with disabilities in schools. It translated national laws into local binding laws, which were subsequently developed into the By-Law on Accessibility. The law obliges the construction industry of the designated area to construct accessible buildings/facilities based on the Accessibility Standards.

Focusing on the high drop-out rates of children with disabilities, implementation of the By-Law started with primary schools in the area. Since the passing of the law, six newly constructed primary schools and one secondary school are now in line with the Accessibility Standards, thus meeting the needs of all persons – including children – with disabilities. In addition, two existing schools and one health centre are currently undergoing crucial modifications to comply with the standards. Since 2016, 249 children with disabilities have been enrolled and retained in the six new primary schools.

All these actions have also led to increased awareness regarding accessibility rights and needs among service providers and the construction industry in Nabbale.

Outlook, transferability, and funding
The policy is the first of its kind among the eight sub-counties forming the Mukono district. Since each sub-county can develop and pass its own By-Law, the policy is expected to be replicated in other sub-counties in the future.
The consultative process of developing the By-Law on Accessibility and its passing and approval by the Nabbale Council was financed by the Disability Rights Advocacy Fund and the local government. The budget for the implementation was $60,000 in 2016.

Laws and regulations involved
- By-Laws on Accessibility in Nabbale sub-county

FACTS & FIGURES

- Since 2016, six newly constructed primary schools and one secondary school have been built in line with the accessibility needs of children with disabilities.
- Currently, two existing schools and one health centre are being modified to be in line with the Accessibility Standards.

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Universal Accessibility Strategy for the whole of Dubai

UNITED ARAB EMIRATES / GOVERNMENT OF THE EMIRATE OF DUBAI / UNIVERSAL ACCESSIBILITY STRATEGIC PLAN 2017–2020

In 2017 the Government of the Emirate of Dubai (United Arab Emirates, UAE), has begun to implement the Dubai Universal Accessibility Strategy and Action Plan (DUASAP). Fifteen relevant governmental and semi-governmental local entities in Dubai have been mandated to prepare a three-year (2018–2020) sectoral implementation plan to retrofit existing buildings, infrastructure, and facilities to ensure a barrier-free and fully inclusive physical environment. The Global Alliance on Accessible Technologies and Environments (GAATES), an international NGO that promotes the accessibility of technologies and the built environment, was directly involved in the development of the policy. Using five strategic elements, Dubai is on track to create full accessibility to the built environment and public transportation by 2020, based on Universal Design principles.

Problem targeted
The Government of Dubai is aware of its obligation to accommodate the diverse needs of all its citizens, and has expressed its intention to make the city fully accessible by 2020 (when it will also host EXPO, a worldwide conference and exhibition).

Solution, innovation, and impact
The Government of Dubai decided to cooperate with GAATES to develop and implement the DUASAP. GAATES first focused on identification of the current gaps in terms of accessibility, as well as on managerial and implementation challenges and the technical capacity to ensure compliance with existing and new accessibility regulations. The Dubai Universal Accessibility strategy is based on five strategic focus areas:
- Development of a comprehensive legal framework
- Governance and enforcement
- Retrofitting
- Capacity-building
- Awareness-raising

The ten priority sectors include, Education, Health Care, Recreation, Culture and Arts, Sports, Religious Services, Transportation, Retail and Commercial Services, Justice and Judicial Services, and Tourism.

Each of the five strategic objectives have specified and detailed targets, defined responsibilities, and a designated timeline. All processes are broken down into clusters, and each cluster has a designated accessibility focal point, consisting of an existing department or position.

Outlook, transferability, and funding
In May 2017, the Higher Committee for the Protection of Rights of Persons with Disability officially enacted the Dubai Universal Design Code (DUDC) as the mandatory standards for universal accessibility requirements across all jurisdictions in Dubai Emirate. The Dubai Municipality's Buildings Department and the Roads and Transport Authority have been mandated to oversee the full enforcement of the DUDC in all newly authorized projects and procurements in both public and private sectors. Based on new accessibility bylaws, the two authorities are now eligible to sanction penalties and revoke permits in cases of non-compliance with the new code.

A bi-annual report will be presented to the Higher Committee indicating compliance performance and achieved levels of accessibility in various sectors.

Laws and regulations involved
- UAE Federal Law 29 (2006)
- Local Law 2 (2014)
- Local Bylaws for Law 2 (2014)
- Dubai Universal Design Code (2017)

Links and further reading:
https://tec.gov.ae/en
www.mycommunitydubai.com

FACTS & FIGURES

- As of 2017, the Dubai metro system (2 lines with a total of 74 kilometres and 45 stations) is fully accessible, as is half of its bus system and approximately 40 per cent of all taxis.

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Harmonization of ICT standards across the Atlantic

USA – EU / U.S. ACCESS BOARD & EUROPEAN COMMISSION / INTERNATIONAL E-ACCESSIBILITY STANDARDS

In 2004 the international standards cooperation between the United States (U.S.) and the European Commission (EC) was initiated to avoid conflicts and to harmonize their ICT accessibility standards, in particular Section 508 of the U.S. Rehabilitation Act and the European Commission Mandate M/376. By harmonizing standards between the U.S. and the EC, a framework had been created for developing a wide range of applications that will make ICT products and services more accessible for people with disabilities in both continents. Moreover, it facilitates trade between these regions. To date, the result has been the harmonizing of 90 per cent of all standards, with the expectation of reaching 100 per cent soon.

Problem targeted

In the beginning, close trans-Atlantic cooperation was difficult due to the differences between the two legislative and standards models (Section 508 being a binding legislation, and EN 301549 a voluntary standard).

Solution, innovation, and impact

The United States Access Board, a federal agency, worked in partnership with the EC to develop this policy. The challenge was to maintain close contact to help ensure that the standards did not go in different directions. Countries have unique regulatory and standards development processes, and time was required to understand the limitations and mechanisms of these processes in order to find a common approach to e-accessibility.

The European Standards Organization adopted the first European Standard on e-Accessibility in 2014 (EN 301 549), as a result of the European Commission Mandate 376. In the United States, meanwhile, Section 508 of the Rehabilitation Act and Section 255 of the Communication Act were jointly updated by the Access Board in January 2017. It requires that ICT is harmonized with standards issued by the European Commission and with the Web Content Accessibility Guidelines – a globally recognized voluntary consensus standard for web content and ICT.

The standards define the functional performance requirements for various kinds of disabilities:

- Users without vision, limited vision, without perception of colour
- Users without hearing, limited hearing
- Users without vocal capability
- Users with limited manipulation or strength, or with limited reach

This is followed by detailed requirements for hardware and software, ICT devices (phone and videos function), and web and non-web documents. Here again, each disability and its specifics are covered. Organizations can access the standards online and use them as guidelines to improve their technologies. Aligned standards boost and support the ICT industry to provide more accessible technologies, and due to economies of scale they benefit persons with disabilities in the U.S. and the EU.

The European Standard EN 301 549 is available (in English) on the European Telecommunications Standards Institute website, a European standards organization. It has also been published in various languages by the members of the European Committee for Standardization (national standards bodies) and the National Electrotechnical Committees in 33 European countries (including all member states of the EU and the European Free Trade Association).

Outlook, transferability, and funding

There are indications that the cooperation will continue. An international standard may be the appropriate next step to develop a truly international approach to e-accessibility that can be referenced by other countries and even globally.

The groups involved in developing the standards are agencies with annual operating budgets, from which portions of the budgets are designated for rulemaking and standards development.

Laws and regulations involved

- Section 508 of the Rehabilitation Act
- European Commission Mandate M/376
- European Standard on e-Accessibility in 2014 (EN 301 549)

Timothy P. Creagan
Senior Accessibility Specialist, U.S. Access Board

Annex

Social Indicators

Questlionnaire, all data, and full analysis

Network

The Zero Project network 2017–2018

Social Indicators 2018: All 22 questions

The Questionnaire 2018 consisted of 22 questions, with a focus on accessibility. Questions 14 and 15 also relate explicitly to the Sustainable Development Goals (SDGs) [Goal 11 to make cities and human settlements inclusive, safe, resilient and sustainable, target 11.7, and Goal 10 to reduce inequality within and among countries, target 10.2] whereas several other questions also have a relevance in the 2030 Agenda.

Questionnaire 2018: All Questions of Social Indicators	category, tag
1. Does the state oblige employers to take the necessary action on accommodations made in the workplace for all employees with disabilities?	Employment
2. Are all modes of urban public transport (bus, metro, tram and train) accessible to all persons with disabilities?	Transport, Accessibility
3. Are all newly constructed buildings to which there is public access required by law to be accessible to all persons with disabilities?	Accessibility, Built Environment
4. Is there a legal time frame for all existing buildings, to which there is public access, to be made accessible to all persons with disabilities?	Accessibility, Built Environment
5. Is an audio version, a sign language translation, and a plain language version of the Convention available on an official state website, in all official languages of your country?	UN CRPD, access to information
6. In a situation of risk, is the state's early warning system accessible to all persons with disabilities?	Humanitarian Aid, Accessibility
7. Is sign language an officially recognized language in the courts?	Independent Living, Access to Justice
8. Does a person with disabilities have the right to receive free and compulsory primary education within the mainstream educational system?	Education, Built Environment
9. Is there an umbrella organization representing at minimum 50% of all those associations for persons with disabilities that receives directly basic public funding?	UN CRPD, International Cooperation
10. If the state has signed or ratified the Convention, has it designated 'focal points' within government to address matters relating to the Convention's implementation?	UN CRPD, national implementation
11. Does your country collect data on persons, including children, with disabilities living in institutions?	Data, independent living
12. In your country, are there data available on the employment rate of young people with disabilities?	Data, employment
13. Compared to five (5) years ago, has the availability of data improved?	Data
14. Is official data available on public buildings, including schools and universities, that comply with the ISO 21542:2011 standards on Accessibility and usability of the built environment?	Data, SDG, Accessibility, Built Environment
14,1. If data is available, what is the percentage of official buildings that comply with the ISO standards?	Data, SDG, Accessibility, Built Environment
15. Does your country collect data on the percentage of government websites which meet the ISO/IEC 40500:2012 of Accessibility for Web content?	ICT, Accessibility, data, SDG
15,1. If data is available, what is the percentage of government websites that comply with the ISO standards?	ICT, Accessibility, data, SDG
16. Do ICT university students receive mandatory training modules about inclusive design solutions?	Education, Accessibility, ICT
17. Do architects and engineers receive mandatory training modules about inclusive design solutions?	Education, Accessibility, Built Environment
18. In your country, are accessible broadcasting services (Television and radio programs) readily available to all persons with disabilities?	Accessibility, ICT
19. Is there public funding available to ensure that people with disabilities have access to the necessary assistive devices and technologies?	Accessibility, ICT, independent living
20. Do persons with disabilities have the right to vote by secret ballot in elections?	Political Participation
21. Is there reliable information about the Accessibility of tourism, sport and leisure services and facilities in your city?	Accessibility
22. In your country, are accessible ATMs (cash dispensing machines) readily available to all persons with disabilities?	Accessibility

Find the full questionnaire at www.zeroproject.org/downloads

Social Indicators 2018: All 126 responses to all 22 questions, from 105 countries

| Region | Asia & Pacific (including central Asia and Middle East) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | European countries | | | | | | | | | | | | | | | | | | |

Social Indicators 2018: All 126 responses to all 22 questions, from 105 countries (continued)

Region	Latin, Central America & Caribbean																					North America					Oceania				
Expert from Country	Barbados	Belize	Belize	Brazil	Colombia	Colombia	Dominican Republic	El Salvador	El Salvador	Grenada	Guatemala	Guyana	Haiti	Honduras	Jamaica	Mexico	Montserrat	Nicaragua	Nicaragua	Panama	Peru	Peru	Peru	Saint Lucia	Trinidad and Tobago	Canada	USA	Algeria	Egypt	Libya	Morocco	Australia	Australia	Australia	Cook Islands	Fiji	Micronesia	Palau	Samoa	Solomon Islands
Organization	BARNOD INC	The Inspiration Center	Belize Assembly for Persons with Diverse Abilities	ABRASC	RECA	Institución Educativa Teresita Montes	Consejo Nacional de Discapacidad	ACOGIPRI de RL	Fundación ParaisoDown	Grenada National Council of the Disabled	COPDIGUA	Guyana Coun of Org. for PWD's	RANPH	Fundacion Hondureña de Rehabilitacion e Integracion del Limitado, FUHRIL	Combined Disabilities Association	confederacion mexicana de limitados fisicos y representantes de deficientes mentales	Montserrat Association for Persons with Disabilities Inc.	DPI Nicaragua	ASNIC	Asociacion Nacional Para la Integracion Social de las Personas con Discapacidad (ANISPEDI)	Patronato Peruano De Rehabilitación	Sociedad Peruana de Sindrome Down	ASOCIACION DE CONSULTORES EN REHABILITACION PROFESIONAL	NATIONAL COUNCIL OF AND FOR PERSONS WITH DISABILITIES	Trinidad and Tobago Chapter of Disabled Peoples' Int	CNIB	United States International Council on Disabilities	Federation Nationale Des Sourds D Algerie	Egyptian forum of persons with disabilty	The Libyan Federation for the Rights of Persons with Disabilities	The Moroccan Coalition for the Rights of Persons with Disabilities	Deaf Australia	Inclusion Australia	Australian Federation of Disability Organisations	Cook Islands National Disability Council	Fiji Disabled Peoples Federation	Pohnpei Consumer Organization	OMEKESANG Association	Nuanua O Le Alofa	People With Disabilities Solomon Islands (PWDSI)
1. Accommodations of the workplace	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2. Accessibility of public transport	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3. Newly constructed buildings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4. Time frame for newly constructed buildings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5. Accessible UN CRPD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6. Accessible warning systems	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7. Recognition of Sign Language	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8. Right to inclusive primary education	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
9. Umbrella organization	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10. Existence of Focal Points	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11. Data on institutionalization	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
12. Data on employment of youth with disabilities	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
13. Improvement of data availability	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
14. Data on compliance with ISO 21542:2011 standards (buildings)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
14,1 Percentage of accessible public buildings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15. Data on compliance with ISO/ IEC 40500:2012 (web)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15,1. Percentage of accessible public websites	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
16. Mandatory training in inclusive design	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
17. Mandatory training for architects	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
18. Accessible TV and media	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
19. Financial support for assistive technologies	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
20. Secrecy of voting for all	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
21. Data on accessible tourism	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
22. Accessibility of Cash Dispensers (ATMs)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Yes ● Yes with Qualification ● No ● NA=Not available

| Region | Sub-Saharan Africa | | |

Social Indicators 2018 by theme and region

Social Indicators aggregated by 13 themes of the UN CRPD, and by regions and country groups

	Accessibility	Built environment	Data	Education	Employment	Humanitarian Aid	ICT	Independent Living	Political Participation	Sustainable Dev. Goals	Transportation	UN CRPD	Number of questionnaires
Averages all	2.6	2.3	2.6	2.2	2.3	2.7	2.6	2.2	1.5	2.9	2.6	2.2	
Averages very high dev	2.2	2.1	2.2	2.0	1.8	2.3	2.2	1.7	1.3	2.5	2.0	1.8	
Averages low developmet	2.7	2.6	2.8	2.4	2.7	2.8	2.7	2.4	1.5	2.9	2.9	2.4	
No. of questions	15	6	7	3	2	1	5	3	1	4	1	3	
Social Indicators disaggregated by world region													
Asia & Pacific	2.6	2.4	2.7	2.3	2.5	2.8	2.7	2.3	1.7	2.8	2.7	2.4	27
European Countries	2.4	2.2	2.5	2.0	1.8	2.6	2.5	1.8	1.3	3.0	2.2	1.7	20
Latin America	2.5	2.2	2.6	2.1	2.3	2.6	2.7	2.2	1.6	2.9	2.7	2.3	25
North America	1.9	2.1	1.6	2.3	1.5	1.5	1.9	1.5	2.0	2.0	1.5	2.3	2
North Afrcia	2.3	1.8	2.1	1.8	2.3	2.5	2.4	1.7	1.5	2.4	2.8	2.2	4
Oceania	2.6	2.5	2.6	2.3	2.2	2.6	2.7	2.2	1.4	3.0	2.8	2.1	9
Sub-Saharan Africa	2.6	2.5	2.7	2.3	2.6	2.7	2.7	2.4	1.4	2.9	2.8	2.3	39
Social Indicators disaggregated by UN CRPD ratification													
all ratified	2.5	2.3	2.6	2.2	2.3	2.6	2.6	2.2	1.5	2.8	2.6	2.2	110
all not yet ratified	2.7	2.5	2.7	2.3	2.5	2.7	2.7	2.4	1.4	3.0	2.9	2.5	16
Social Indicators disaggregated by the UNDP Country Development Index													
very high developed	2.2	2.1	2.2	2.0	1.8	2.3	2.2	1.7	1.3	2.5	2.0	1.8	23
high developed	2.5	2.2	2.6	2.1	2.3	2.7	2.7	2.1	1.4	2.9	2.7	2.2	35
medium developed	2.6	2.4	2.6	2.2	2.4	2.7	2.7	2.4	1.7	2.8	2.7	2.4	31
low developed	2.7	2.6	2.8	2.4	2.7	2.8	2.7	2.4	1.5	2.9	2.9	2.4	36
Selected world regions disaggregated by the UNDP Country Development Index and region													
Asia & Pacific													
very high developed	2.1	2.0	2.1	2.2	2.5	2.0	2.0	1.7	1.5	2.0	2.0	1.8	2
high developed	2.6	2.1	2.7	2.1	2.4	3.0	2.7	2.2	1.6	3.0	2.9	2.2	7
medium developed	2.7	2.5	2.7	2.4	2.5	2.8	2.8	2.4	1.8	2.9	2.6	2.6	13
low developed	2.8	2.6	2.8	2.5	2.8	2.8	2.8	2.5	2.0	2.9	3.0	2.5	5
Europe													
very high developed	2.3	2.0	2.5	1.9	1.8	2.5	2.4	1.7	1.2	2.9	2.0	1.7	16
high developed	2.5	2.2	2.4	2.3	1.7	3.0	2.5	1.9	1.3	3.0	3.0	1.8	3
medium developed	2.7	2.5	2.6	2.0	2.0	3.0	2.6	2.3	2.0	3.0	3.0	2.7	1
low developed													0

No of questionnaires total: 126; No of countries total: 105

	Accessibility	Built environment	Data	Education	Employment	Humanitarian Aid	ICT	Independent Living	Political Participation	Sustainable Dev. Goals	Transportation	UN CRPD	Number of questionnaires
Latin America													
very high developed													0
high developed	2.5	2.2	2.5	2.1	2.3	2.6	2.7	2.1	1.5	2.9	2.7	2.3	17
medium developed	2.6	2.3	2.6	2.2	2.3	2.4	2.8	2.3	1.9	2.8	2.6	2.3	7
low developed	2.5	1.7	2.8	2.0	3.0	3.0	2.5	3.0	1.0	3.0	3.0	3.0	1
Sub-Saharan Africa													
very high developed													0
high developed	2.5	2.3	2.6	2.3	2.3	2.3	2.6	2.2	1.3	2.9	2.0	2.4	3
medium developed	2.4	2.1	2.4	1.9	2.4	2.7	2.4	2.4	1.4	2.5	2.9	2.1	7
low developed	2.7	2.5	2.8	2.4	2.6	2.8	2.7	2.4	1.4	2.9	2.8	2.4	29
Social Indicators disaggregated by selected country groups													
Caribbean	2.5	2.2	2.5	2.2	2.2	2.3	2.6	2.1	1.6	2.8	2.6	2.3	11
CIS, Eastern Europe	2.6	2.3	2.5	2.2	2.0	2.8	2.4	1.8	1.7	3.0	2.8	2.2	6
MENA	2.5	2.2	2.5	2.0	2.4	2.7	2.6	2.2	1.4	2.8	2.6	2.5	10
Social Indicators disaggregated by economic membership organizations													
ASEAN	2.5	2.2	2.7	2.1	2.5	2.8	2.6	2.0	1.8	2.9	2.3	2.4	6
European Union	2.2	2.0	2.4	2.0	1.7	2.4	2.4	1.8	1.2	2.9	2.0	1.6	14
OECD	2.2	2.2	2.2	2.0	1.7	2.3	2.2	1.8	1.3	2.5	2.0	1.8	20
Social Indicators disaggregated by membership of respondees in umbrella organizations													
UN DPI	2.6	2.4	2.7	2.3	2.4	2.7	2.7	2.3	1.6	2.9	2.8	2.4	87
EASPD	2.3	2.1	2.5	2.1	1.8	3.0	2.4	1.8	1.3	3.0	2.0	1.7	8
Inclusion International	2.6	2.4	2.6	2.2	2.3	2.6	2.6	2.0	1.4	3.0	2.6	2.3	13
WBU	2.3	2.2	2.7	2.3	2.0	2.0	2.5	2.0	2.0	3.0	2.0	1.5	1
WFD	2.4	2.0	2.6	2.0	2.3	2.5	2.7	2.0	1.0	2.8	2.4	2.1	11
WFDB	2.2	2.1	2.4	1.8	1.8	2.2	2.4	1.6	1.2	2.9	2.0	1.5	5

Number of questionnaires: Number of questionnaires that were received and data aggregated in this Indicator.
Themes in columns: Selected core themes of the UN CRPD.
Number of questionnaires aggregated: Total number of questionnaires completed by respondees.
Indicator Value: A social indicator of 1.0 means that all questionnaire respondents (would) have answered with “yes” (“green light”). A social indicator of 3.0 means that all questionnaire respondents (would) have answered with “no” (red light”). A social indicator of 2.0 means that all questionnaire respondents have, on average, answered with “yes with qualifications” (“orange light”).
Averages all countries: The Social Indicators state the average of all respondents worldwide.
Country Development Index: Based on the Human Development Index, annually published by the United Nations Development Programme”.
Country groups (including the definition of “Europe”) is based on the system of the United Nations Statistics Division (www.unstats.un.org).
Data was collected in summer and autumn of 2017.

Research Network 2018 of the Zero Project

List by country of all nominators, evalulators, questionnaire respondents, and conference participants

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List of Acronyms

® . . . . . Registered Trademark
£ . . . . . British Pound
€ . . . . . Euro
$ . . . . . US Dollars
¥ . . . . . Yen
24/7 . . . . . all the time, everyday
ADA . . . . . Americans with Disabilities Act
ADHD. . . . . Attention Deficit Hyperactivity Disorder
ALS . . . . . Amyotrophic lateral sclerosis
ASEAN . . . . Association of Southeast Asian Nations
ASEAN . . . . Association of Southeast Asian Nations
ASL . . . . . American Sign Language
ATM . . . . . Automatic Teller Machine/Cash Dispenser
CBR . . . . . Community-based rehabilitation
CEO . . . . . Chief Executive Officer
CIS . . . . . Countries of the former Soviet Union
CRPD. . . . . see UN CRPD
CV. . . . . Curriculum Vitae, resumé
DAISY . . . . . Digital Accessible Information System
DPI . . . . . Disabled Peoples` International
DPO . . . . . Disabled People Organization
e.V. . . . . eingetragener Verein (registered Association)
EAA . . . . . European Accessibility Act
EASPD . . . . European Association of Service Providers
EC. . . . . European Commission (part of the EU)
EFC . . . . . European Foundation Centre
ENAT . . . . . European Network of Accessible Tourism
ENAT . . . . . European Network of Accessible Tourism
ENIL. . . . . European Network for Independent Living
EU. . . . . European Union
EU SILC . . . European Union Statistics in Income and Living
f., ff.. . . . . Following page, following pages
G3ICT . . . . . Global Initiative for Inclusive ICTs
GAATES . . . Global Alliance on Accessible Technologies and Environments
GPS . . . . . Global Positioning System
H.E.. . . . . Her/His Excellency
HR. . . . . Human Resources
HTML. . . . . Hypertext Marker Language
(Computer language used for websites)
ICT . . . . . Information and communication technologies
IDA . . . . . International Disability Alliance
IE. . . . . Inclusive Education
IFES . . . . . International Foundation for Election Systems
ILO . . . . . International Labour Organization
Inc. . . . . Incorporated (For-Profit Organization, U.S., U.K. and other countries)
INEE. . . . . Inter-Agency Network for Education in Emergencies
iPad . . . . . Tablet Computer, Trademark of Apple Computers
ISL . . . . . International Sign Language
ISO . . . . . International Organization for Standardization
IT. . . . . Information & Technology
ITU . . . . . International Telecommunication Union
LCD . . . . . Liquid Crystal Display
Ltd. . . . . Limited (registered company)
MEP . . . . . Member of the European Parliament
MP . . . . . Member of Parliament
N/A. . . . . Not available or not answered
NFC . . . . . Near-Field-Communication
NGO. . . . . Non-Governmental Organization
OECD . . . . . Organisation for Economic Co-operation and Development
OHCHR. . . . Office of the High Commissioner for Human Rights
ONLUS . . . . Organizzazione Non Lucrativa Di Utilitá Sociale
(Non-Profit Organization, Italy)
p. . . . . Page
pp.. . . . . Pages
PWD. . . . . Person with Disability
S. p. A. . . . . Societá Per Azioni (shared company, Italy)
SCRPD . . . . Secretariat for the Convention of the Rights of Persons with
Disabilities (part of the U.N. system)
SDG . . . . . Sustainable Development Goal
SLP. . . . . Speech-language pathologist
TM . . . . . Trademark, Brandname protected
TU. . . . . Technical University, Technische Universitaet
TVET . . . . . Technical, vocational, and educational training
UAE . . . . . United Arab Emirates
UD. . . . . Universal Design
UK. . . . . United Kingdom
UN. . . . . United Nations
UN CRPD . . United Nations Convention on the Rights of Persons with
UN DESA . . United Nations Department of Economic and Social Affairs
UNDP. . . . . United Nations Development Programme
UNESCO . . United Nations Educational, Scientific and Cultural Organization
UNICEF . . . . United Nations Children's Fund
UNRWA. . . . United Nations Relief and Works Agency for Palestine Refugees
U.S., USA. . . United States of America
USAID . . . . . United States Agency for International Development
VET . . . . . Vocational and educational training
W3C. . . . . World Wide Web Consortium
WBU. . . . . World Blind Union
WCAG 2.0 . Accessibilty Standard for Web applications
WFC. . . . . World Future Council
WFD. . . . . World Federation of the Deaf
WHO . . . . . World Health Organization

“I could again move in my own house, and I will apply it to other spaces in the future.”

Bernadita Santa Cruz, designer and entrepreneur, Santiago, Chile. Page 57.

“In our shop all persons with disabilities can make any purchase by themselves.”

Marta Gomis, shop assistant in “For&From” Tempe shop, Elche, Spain. Page 104.

“I can still enjoy my passion for live Heavy Metal.”

Christina, user of “Inklusion muss laut sein!” Germany. Page 66.

“Parents report that our pupils do well, some even ranking first in their class.”

Syarifah, health worker using child development methods of the Suryakanti Foundation, Tanjungsari, Indonesia. Page 76.

“Travelling alone is possible and transforms you.”

Bhupendra, user of Planet Abled travels, Ahmadabad, India. Page 74.

“I began to see that my daughter could thrive in school and in life.”

Travis Harker, father of a child with learning and attention issues, and user of Understood.org, Manchester, United States. Page 124.

“I really feel that Friendship Park was the breakthrough for inclusion for Avital.”

Ilana Grunberg, mother of Avital and user of Friendship Park, Israel. Page 84.

“Those daily trips give meaning to my life.”

Anne-Lise Dahl, a daily walker, Drangedal, Norway. Page 102.

“I want to be my own boss and not depend on others.”

Joaquim Jose Chichava, welder, Mozambique. Page 98.

“Using a building without even having to consider accessibility challenges.”

Tony Murray, Senior Solution architect, Dublin, Ireland. Page 78.

Facts & Figures

More than 4,000 experts from all sectors of society are part of the Zero Project Network.

180 countries have been covered by the Zero Project Indicators from 2013 to 2018.

More than 400 Innovative Policies and Practices have been awarded from 2013 to 2018.

More than 3,000 persons have participated in Zero Project Conferences since 2012.

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