

February 2025

# Introduction to Disability Inclusion and the Investment Case

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DSS: **Online Training Course – Module 1**



Transforming  
Energy  
Access



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GDI Hub, team, housekeeping

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### Disclaimer

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# Introduction

# Global Disability Innovation (GDI) Hub accelerates ideas into impact for a more just world—for disabled people, and all people.

**41+ countries | 37 million people | 100+ partners**

Growing new technologies & ecosystems | Supporting & scaling innovations |  
Strengthening systems | Pioneering research | Sharing knowledge | Building  
partnerships | Taking risks



**Bringing together world leading academic research  
and practice-led delivery to address global challenges**



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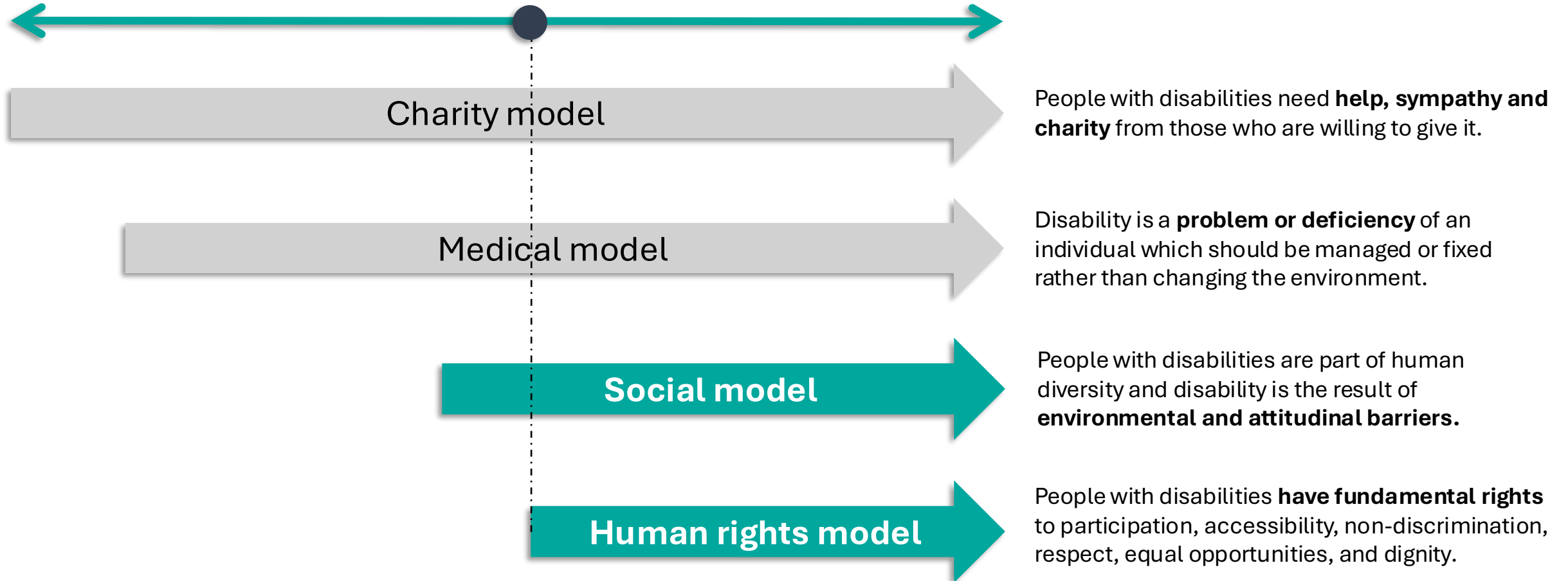
(Thematic Lead & Moderator)

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**What is disability and  
disability inclusion?**

# Ways of understanding disability

2006 UNCRPD\*

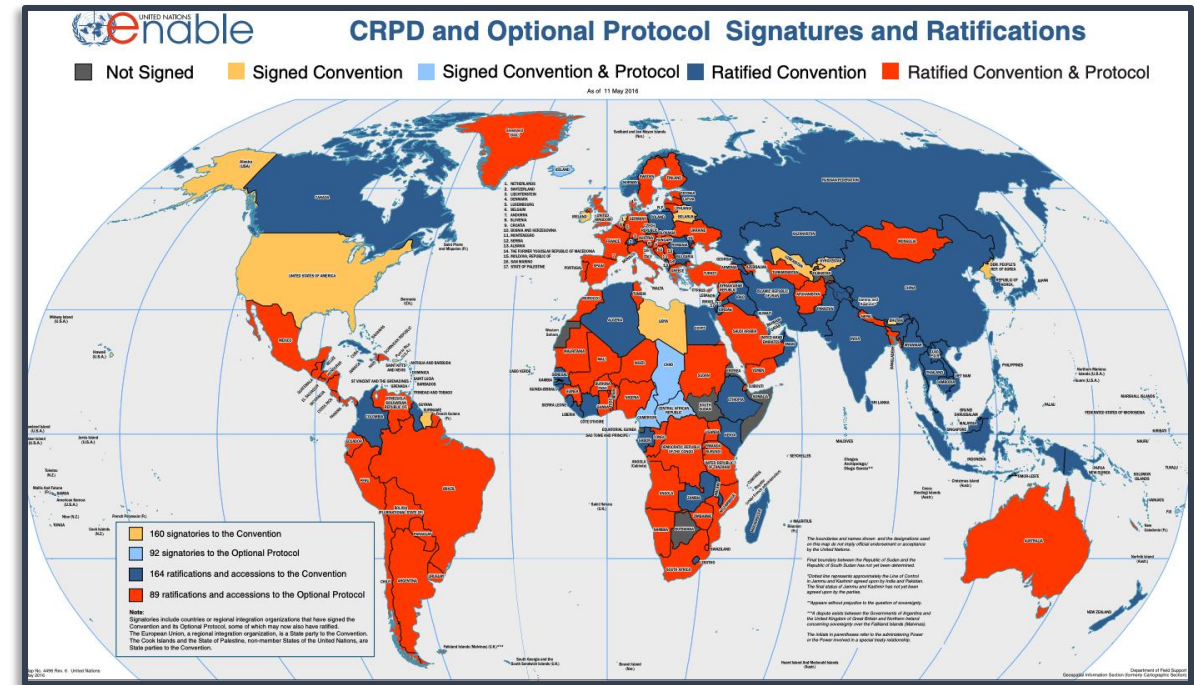


Source: OHCHR Training manual on CRPD

\*United Nations Convention on the Rights of Persons with Disabilities

# UN Convention on the Rights of Persons with Disabilities (CRPD)

- **191** countries have ratified the CRPD
- An international treaty that **promotes and protects** the human rights of people with disabilities.
- Ensuring **participation, accessibility, non-discrimination, respect, equal opportunities and dignity** for people with disabilities in, for example, education, employment, health, and public life.



Source: UNenable

**Discrimination:** “Any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.” (CRPD, 2006)

Disability is an outcome of barriers

**Disability** = Impairment + Barriers

- Increases with age
- Visible and invisible
- Intersectional
- Diverse
- Part of being human

- Injury, illness, or condition
- Physical, mental, intellectual, or sensory

- Physical
- Policy
- Programmatic
- Social
- Communication
- Attitudinal
- Transportation



**1 in 6 people (16%) globally have a disability, 80% live in low- and middle-income countries.**

“Disability is part of human condition. **Almost everyone will be temporarily or permanently impaired** at some point in life.”

World Health Organization, World Bank, 2011



**Vision**



**Hearing**



**Mobility**



**Cognition** e.g., memory, focus



**Self-care** e.g., payments, dressing



**Communication** e.g., being understood or understanding



**Affect** e.g., having anxious or depressed feelings and mood



**Upper body** e.g., moving objects with arms, hands, fingers



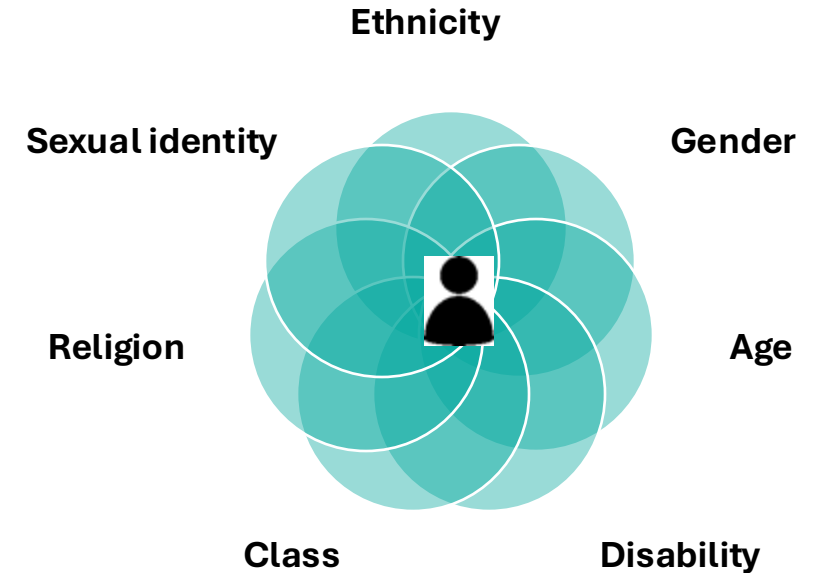
**Pain**



**Fatigue**

# Intersectionality

- Multiple forms of oppression are **interconnected**.
- Different aspects of a person's identity, such as ethnicity, class, gender, religion, and sexual orientation, can overlap and create **complex systems of discrimination**.
- **Multi-faceted barriers** prevent people from accessing and participating in material, financial, and social opportunities or outcomes.



**Gender, equality, disability and social inclusion (GEDSI)** approach to understand and remove multi-faceted barriers in design and delivery



“Women and girls with disabilities experience **“gender inequality, sexism, and stereotyping alongside ableism, disability exclusion, and expectations to conform to specific social and cultural norms.”**”

Asian Development Bank, 2024

# Why disability-inclusive energy access?

“A lot of the time **we tend to naturally default to silos**, so we don’t think of the intersection of disability and climate or the intersection of disability, climate, and gender because we’re traditionally thinking of them as separate groupings or separate thematic areas”.

Mary Keogh, Advocacy Director, CBM Global

**Energy access** interventions commonly look into clean, reliable, and affordable electricity **for households, public services, and economic activities.**

What about **access to sufficient energy for individuals with unique needs (people with disabilities)** due to various structural barriers?



Source: Pascal Maître

**Energy poverty:** Due to unemployment and poverty, as consumers, **people with disabilities often depend on polluting energies** and have limited financial resources to transition to cleaner ones<sup>1</sup>.

**Powering AT:** People with disabilities often require more energy to stay warm and power assistive technology (AT) but are more **likely to have limited financial resources**<sup>3</sup>.

**Gender and disability:** Women with disabilities experience disproportionate levels of poverty, and poor access to employment, products, and services<sup>4</sup>.

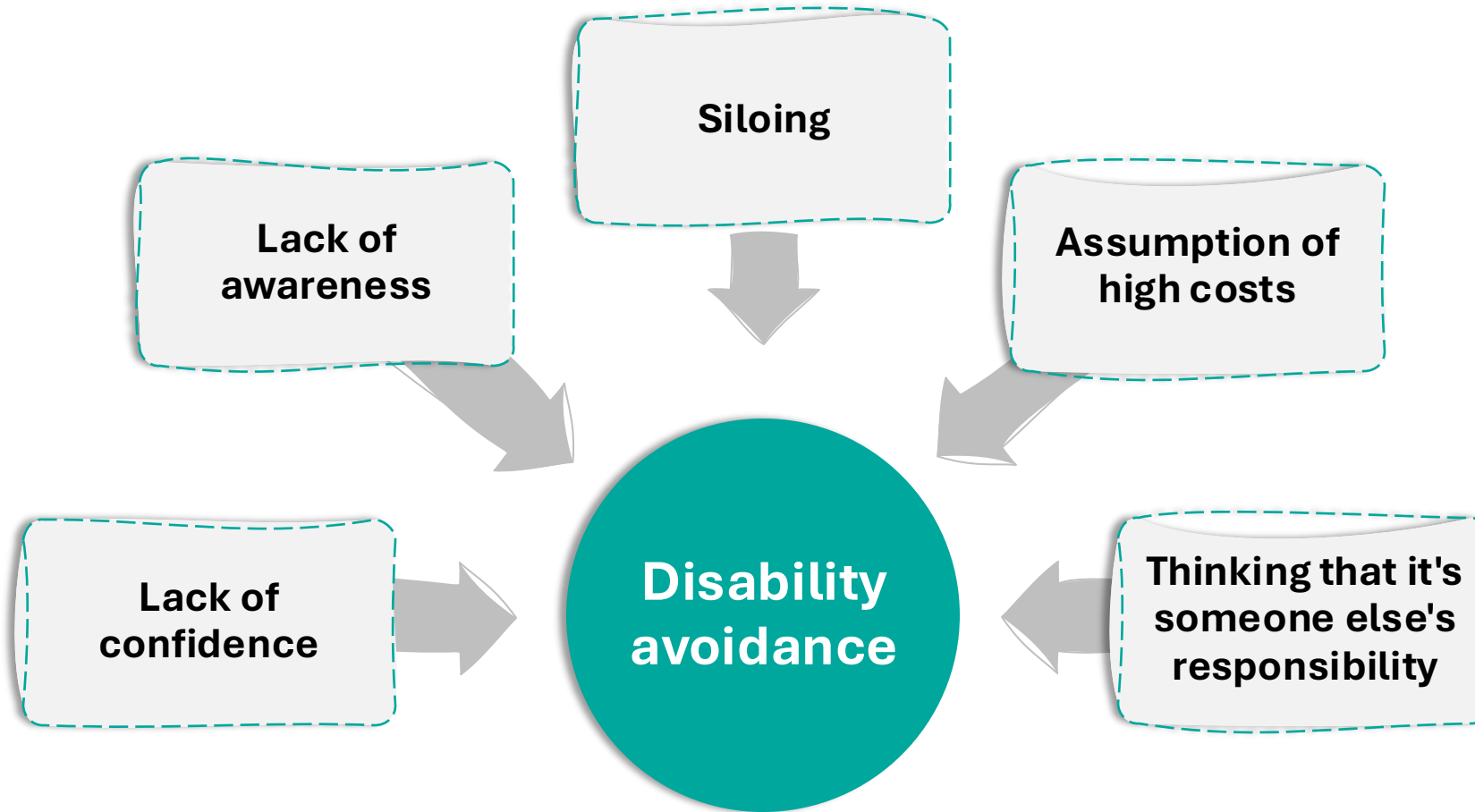


**Powering AT:** >44% WHO-listed priority assistive products need a **battery (usual is 'use-and-throw') or electric charging**<sup>2</sup>.

**Accessible and inclusive design:** Smart energy innovations could be **inaccessible** due to cost, physical and digital barriers<sup>5</sup>.

1. United Nations Department of Economic and Social Affairs. (2018). Disability and Development Report: Realizing the Sustainable Development Goals by, for and with Persons with Disabilities.  
2. World Health Organization. (2016). Priority Assistive Products List.  
3. Disability Hub Europe. (2023). Involving People with Disabilities in Addressing Energy Poverty: A Just Transition.  
4. Asian Development Bank. (2024). Gender Equality and Disability Inclusion: Guidelines to Address the Specific Needs of Women and Girls with Disabilities.  
5. Christopherson, R. (2023). How to make smart energy technology more inclusive. AbilityNet.

## Why is disability inclusion commonly avoided?



This six-module course aims to **break these challenges**  
and **build disability confidence** among TEA partners.

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## Key enablers for disability inclusion



Source: World Economic Forum

Integrating disability inclusion into our daily operations is **an individual and collective responsibility.**



# 1. Disability confidence

## Barriers to disability confidence

- **Cultural stigma** around disability
- **Not wanting to talk** about someone else's experience
- **Fear of getting things wrong** and being disrespectful



## Impacts of a lack of disability confidence

- **Reinforcing stigma** by not addressing it
- **Not creating space** for the voices of people with disabilities to be heard
- **Avoiding important discussions** and actions for disability inclusion
- **Excluding and discriminating** against people with disabilities

## Example: Disability-inclusive behaviour and language

### General reminders:

- Disability does **not** mean lack of ability.
- **Avoid** reinforcing prejudice and associations of pity.
- Position yourself at **eye level**.
- Talk to people **directly**, not to their support person.
- Do **not touch** someone's assistive technology (e.g., wheelchair) unless directed by the individual.
- **Ask** people if they wish to be guided before doing so.
- **Identify yourself** and others to people with visual impairments – let the person know if you enter or exit.
- **Give people time** to both communicate and understand.
- It's okay to get things wrong and **learn from it. If in doubt, ask** the person or group how they wish to identify, communicate or navigate.

Join **module 4** to learn more about **inclusive communication!**

## 2. Engaging people with disabilities



Source: IDA

At the heart of the **disability rights movement**  
and intrinsic to **the CRPD**.

## Example: Inclusive Design

**Inclusive Design** can help all human beings experience the world around them in a fair and equal way.

Iain McKinnon, GDI Hub, 2017

### Inclusive Design principles:

- Place **people at the heart** of the process
- Deliver **results** ‘with’ and not ‘for’
- Are about **collaboration & co-design**
- Anticipate **differing needs** and wants
- Are **responsive**

Join **module 3** to learn more about **inclusive design!**



Source: AT2030

### 3. Accessibility

The European Disability Forum (2023) calls governments to ensure that:

“**Accessibility is integrated from the beginning** into all aspects of green and resilient infrastructure investments, programmes, and initiatives to ensure the elimination of obstacles and barriers in the built environment, and information, communications and other services.”

#### Accessibility when integrated from the beginning:

- Contributes to **independence** and dignity for persons with disabilities.
- Provides **choice on an equal basis with others** and enables full participation of people with disabilities.
- Delivers **good design for everybody**.



# Examples: An accessible ecosystem

Colour and Contrast

Hard-to-read text contrast	25
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Media and Illustrations

Missing alt text	39
Missing audio or video subtitles	1

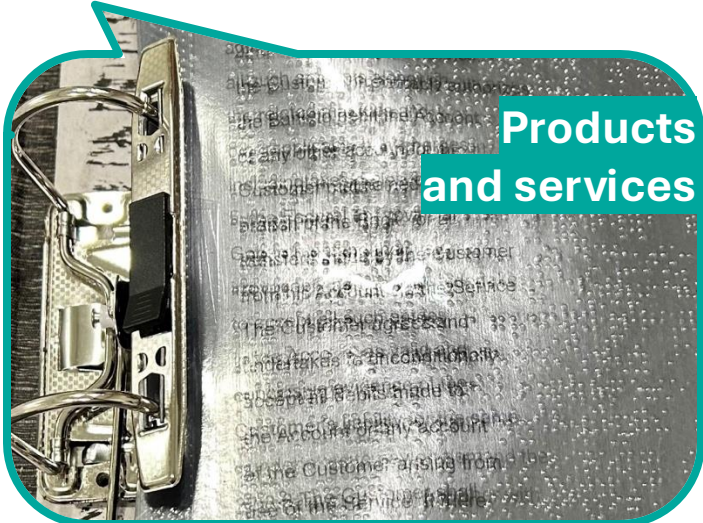
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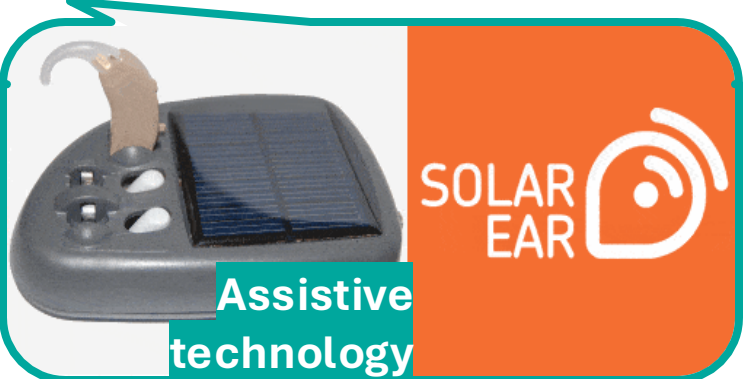
Source: Mobility Network



Source: GDI Hub



Source: GDI Hub



Source: Solar Ear



Source: GDI Hub

## 4. Reasonable accommodations

“**Necessary and appropriate modification and adjustments** not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to people with disabilities **the enjoyment or exercise on an equal basis** with others of all human rights and fundamental freedoms.”

*CRPD, 2006*

### Examples:

- Provision of **sign-language interpretation** at a community focus group.
- **Budget for a personal assistant** to attend an event / business meeting.
- Provision of a **height adjustable desk** to enable a person to roll their wheelchair underneath.



Source: Up News

## 5. Disaggregated data

There is a distinct lack of both qualitative and quantitative **data on people with disabilities and energy access.**

However, data is critical to...

### Justify action

- Why does the scope and scale of the issue **require action?**

### Design policies and projects

- How can **policies** be crafted **to address exclusion?**
- **Who requires what** and where?
- **How much** will it cost?

### Monitor implementation

- Are policies, principles, and projects being implemented effectively to achieve the **desired outcomes?**

### Evaluate outcomes

- **What works** and what does not work?
- **Are there any co-benefits** or disbenefits?

## Example: Washington Group survey questions

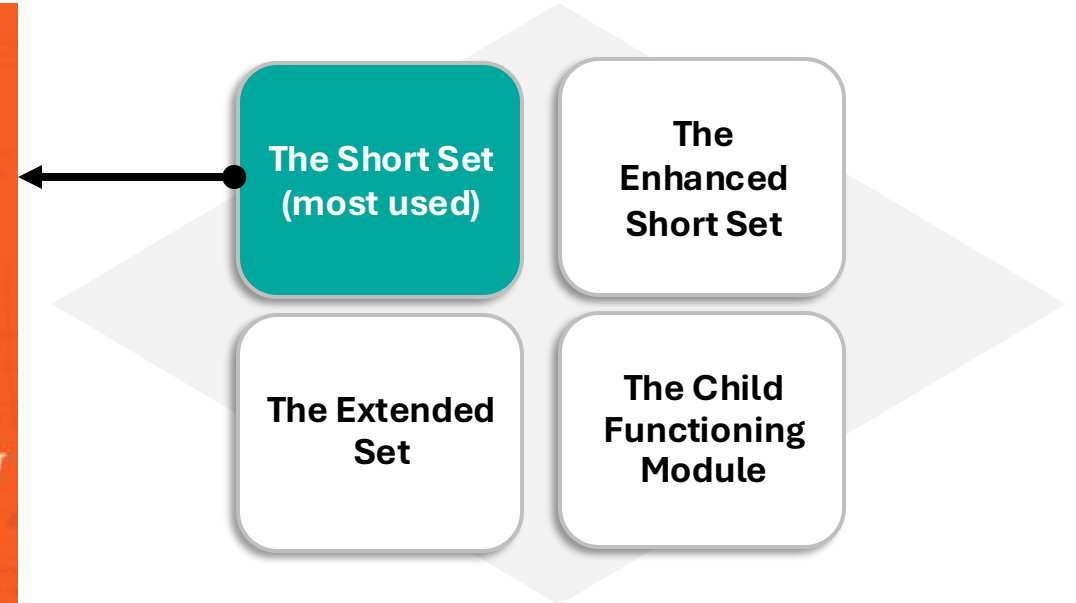


Source: Washington Group

### Answers:

1. No – no difficulty
2. Yes – some difficulty
3. Yes – a lot of difficulty\*
4. Cannot do at all\*

\*Those who respond with **‘yes – a lot of difficulty’** and **‘cannot do at all’** are generally those **defined as having a disability**.

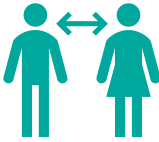


Washington Group survey questions

# How can TEA partners strengthen these enablers?



**Mandate training and awareness** workshops on disability inclusion principles and practices



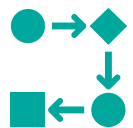
**Prepare and adopt** disability-inclusive behaviour and language **guidelines**



Enable **leadership and strategists to speak with confidence** and operational practicality about disability



Specific emphasis on disability inclusion and accessibility in **policies** (Human Resources policies, budgets, procurement)



**Adopt standard operating procedures** that include provision of accessibility and reasonable accommodations



**Working with people with disabilities** as experts and decision makers, and platforming their voices

## Case study:

Chemonics reported that a “**disability-related accommodation**” line item in a budget during the proposal stage, should be a standard practice.



# 4

## The case for action

“We can take advantage of the energy transition to also **transform harmful norms and practices** that disproportionately impact women and marginalized groups.”

- *UNOPS, 2024*



Source: United Nations

**191 countries globally have ratified the CRPD** and many have, to varying degrees, introduced requirements to support accessibility and inclusion of people with disabilities, which must be upheld in development programme delivery.



Source: United Nations

## Leaving no one behind

Disability inclusion is **critical to the delivery** of the United Nations Sustainable Development Goals 2030 and the Ayrton Fund's priority challenges.



Source: Ottinger, 2013

## Just transition

Low-carbon energy systems are not necessarily more fair or inclusive than the energy systems that they replace. In the transition, **inequalities can persist or even worsen**<sup>1,2</sup>.

1. Johnson, O. W., Han, J. Y. C., Knight, A. L., et al. (2020). Intersectionality and energy transitions: A review of gender, social equity and low-carbon energy. *Energy Research & Social Science*, 70, 101774. doi:10.1016/j.erss.  
2. Ottinger, G. (2013). The Winds of Change: Environmental Justice in Energy Transitions. *Science as Culture*, 22(2), 222-229. doi:10.1080/09505431.2013.786996



Source: ILO, 2010

## Economic value

Low- and middle-income countries commonly **lose 3 to 7% of GDP, due to the exclusion** of people with disabilities from the labour market<sup>1</sup>.



Source: ILO, 2010

## Sustainability

Retrofitting is construction twice; **inclusive and accessible design is construction once.**

1. International Labour Organization. (2010). The price of exclusion: Executive Summary of the economic consequences of excluding people with disabilities from the world of work. Employment Working Paper No. 43.

“By excluding persons with disabilities, **businesses are missing out** on untapped talent among potential and current employees, consumer markets, and **opportunities for innovation and profits.**”

*UN ESCAP, 2023*



Source: NCPED



## Employment

**22% of the global working age population have a disability.**

Disability-inclusive workforces see increased talent access, innovation, engagement, retention, and enhanced reputation—all of which likely contribute to better business performance.



Source: McDonalds

## Customer base

**27% of the global consumer base (15+) have a disability.** The total disposable income of people with disabilities in North America and Europe alone is **\$2.6 trillion.**



Source: AT2030

## Cost savings

Including inclusive design from the start of a project typically only adds **about 1% to the total cost**.

Making these changes later can potentially increase costs by up to 20%. **For every dollar spent on accessibility and inclusive design, companies see an average revenue return of over nine dollars<sup>1</sup>.**



Source: EnableMe

## Mitigating legal risk

In many countries globally, ensuring **accessibility for people with disabilities is a requirement enshrined in law**.

Not delivering accessibility across all domains (infrastructure, digital products and services) could expose companies to legal challenges.

1. Disability Inclusive and Accessible Urban Development Network, World Enabled, Christian Blind Mission. (2016). The Inclusion Imperative: Towards Disability-inclusive and Accessible Urban Development.

# 5

## Summary and next steps

## What is disability and disability inclusion?

- **Disability is diverse** and a part of being human. It arises from barriers that should be reduced and removed.
- **1 in 6 people (16%) globally have a disability**, 80% live in LMICs.

## Key enablers for disability inclusion

- Disability confidence
- Engaging persons with disabilities
- Accessibility
- Reasonable accommodations
- Disaggregated data

## The case for action

- Disability inclusion is **a process, not a project**.
- Disability inclusion **makes sense in development and in business**.

### Suggested actions for TEA partners:

- Conduct disability inclusion **training and awareness workshop** for all staff.
- Develop and adopt **policies** for disability inclusion and reasonable accommodations.

### Triage clinics and technical assistance:

TEA Partners can now **book one-hour appointments** with the GDI Hub team to discuss any questions or ideas on disability inclusion and innovation. 1-2-1 technical assistance support is also available from the GDI Hub team.

## Thank you!



Scan the QR code to book  
your slot or email  
[b.nagendran@ucl.ac.uk](mailto:b.nagendran@ucl.ac.uk)