

# Digital Development as a tool for inclusive social development

*Disability Inclusion and Disability Innovation*

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The Global Disability Innovation Hub was launched to continue the innovation around disability that way begun by the 2012 Paralympic Games

*“London 2012 was  
the most successful  
Paralympic Games  
ever  
and  
the most  
accessible Olympic  
Games ever”*

*President of the  
International Paralympic  
Committee*



Global  
Disability  
Innovation  
Hub

Innovation &  
Entrepreneurship

Policy &  
Participation

Research &  
Teaching

**“We are  
building a  
movement to  
accelerate  
disability  
innovation for  
a fairer world”**

GDI Hub is a social business and a research center led by  
University College London

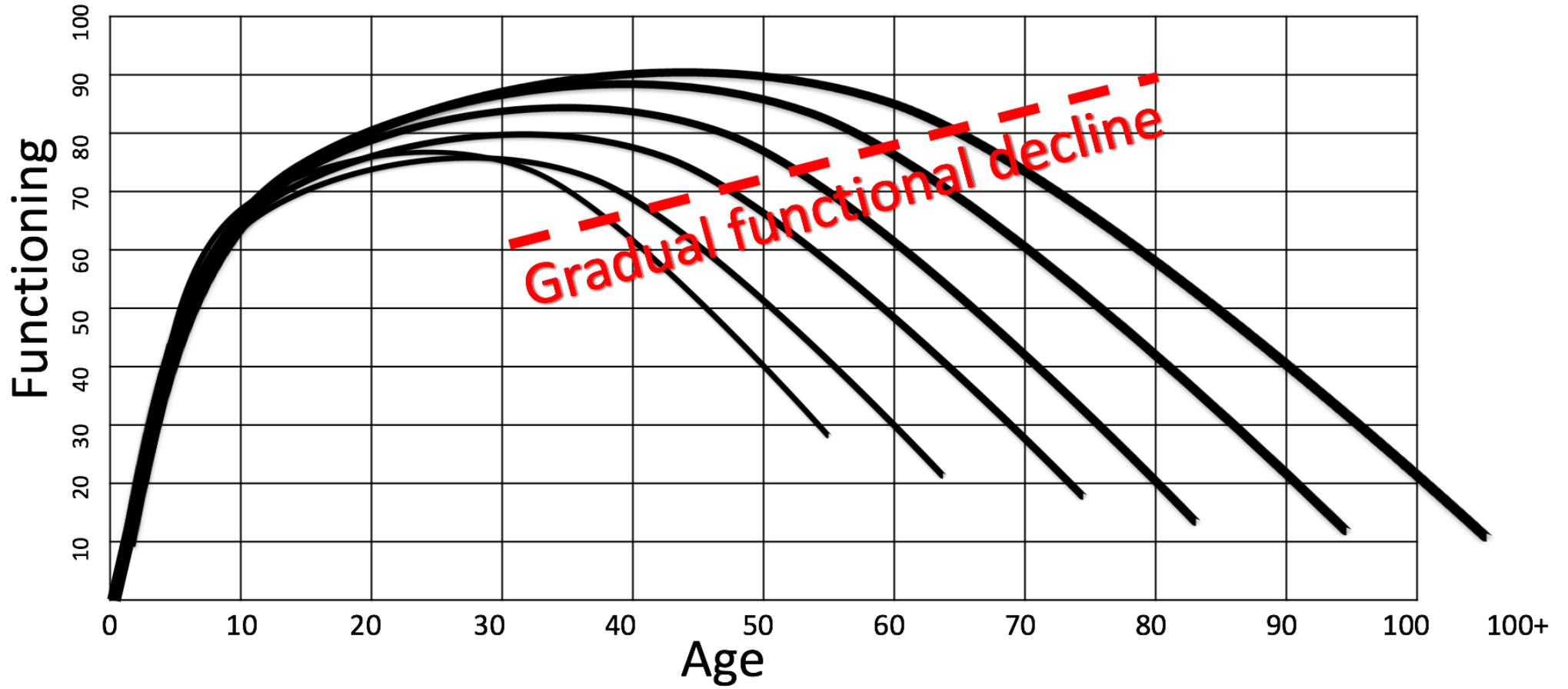
**1** Over  
**BILLION**  
People experience impairments



**1** in **7** people

**2** Over  
**BILLION**  
People will experience  
impairments by

**2050**





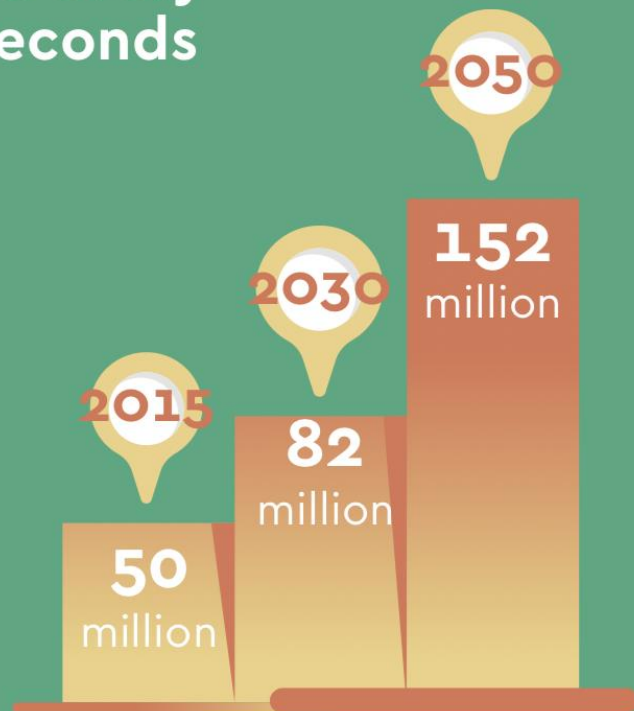


Nearly 10 million new  
cases every year

One every  
3 seconds

50 million people  
worldwide

Set to triple  
by 2050



Majority of people who will  
develop dementia will be in  
**low- and middle-income  
countries**

# Dementia

AT:2030



Life-Changing Assistive Technology for All

## Case Study: Assistive Technology

*Can we set a global  
mission on  
for disability  
innovation?*

*Who will join in?*

*Will it work?*





AT:2030



## Life-Changing Assistive Technology for All

*“The challenge of AT provision represents a complex web of market and system failure, compounded by a lack of participation from the communities that have the best knowledge of the issues (AT users themselves). This results in a supply/demand mismatch...making AT access one of the most pressing problems facing the global health sector, development agencies, governments, communities and families.”*

(Holloway, et al, 2018).



Image: WHO GATE

## SCOPING RESEARCH REPORT ON ASSISTIVE TECHNOLOGY

ON THE ROAD FOR UNIVERSAL ASSISTIVE TECHNOLOGY COVERAGE

PREPARED BY THE GDI HUB & PARTNERS FOR  
UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT

Download from: [www.disabilityinnovation.com](http://www.disabilityinnovation.com)



A large pyramid, likely the Great Pyramid of Giza, is the central focus. The top of the pyramid is covered in smooth, light-colored stone, while the lower sections are made of visible, rough-hewn stone blocks. A thick black horizontal line is drawn across the middle of the pyramid, separating the smooth top from the stepped base. At the base of the pyramid, a small red and white cart is visible, and a group of people are standing nearby. The sky is a clear, pale blue.

High-quality  
products for rich

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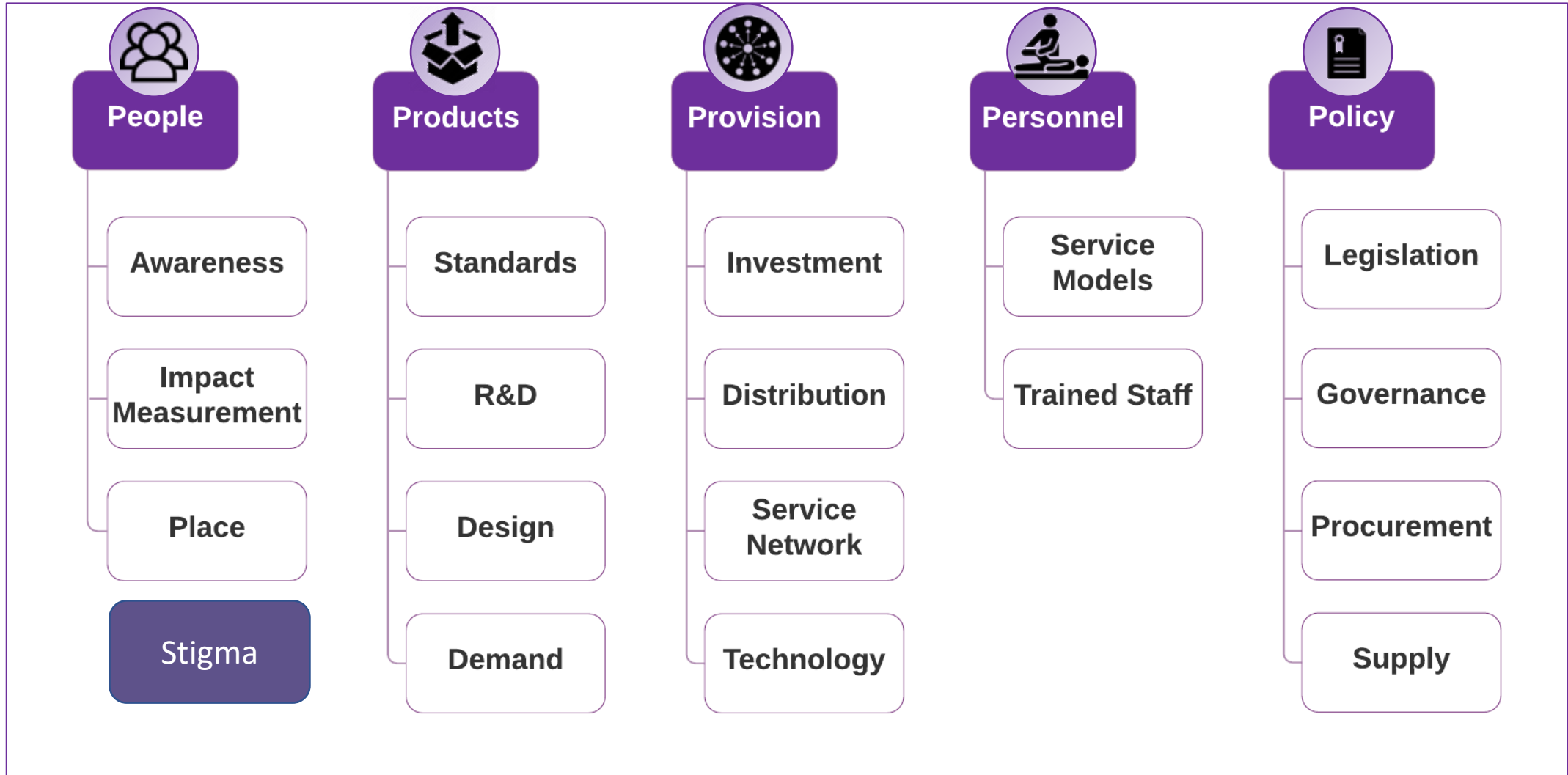
Low-quality products for poor (charity)



Abandonment  
rates of up to  
80%



# Summary of Barriers to AT







## Life-Changing Assistive Technology for All

### Research findings:

1. **Barriers** largely common and now 'known' (reinforced through mixed methods in both studies);
2. **Mass manufacture** probably necessary part of solution but not the whole solution
3. **No model** is yet perfect need to test more methods including digital fabrication
4. **Distinctions** between product markets, but similarities and opportunities to integrate distribution;
5. **Markets not yet developed:** pre-market shaping and further scoping required
6. **East Africa** focus on Innovation Hub, links to other geographies developed in time
7. **Opportunities in ICT and Mobile could massively outperform traditional ATs;**
8. **Need to a focus** on accessible technologies, to align with assistive products
9. **Infrastructure** to support market shaping is essential and overdue e.g. Task Shifting;
10. **Building demand** from users by overcoming stigma and prejudice a key element of approach;
11. **Global coordination** and partnership vital, positive opportunities abound – need to ensure balance;
12. **Partner investment** requires ROI methodology; consensus on 'mission' and clear impact measurement.

- **Global Partnership on Assistive Technology** ([www.atscale2030.org](http://www.atscale2030.org)), *led by DIFD & USAID*
- Coordinate **Research, evidence and impact** on ‘what works’, *led by UCL*
- Spark **innovation** to override market failure including an **Innovation Hub based in Africa**, with a hope to build others around the world
- **Drive availability and affordability**, through a pilot programme of market-shaping activity which works with private sector and governments to reduce cost, *led by Clinton Health Access Initiative*
- **Open up market access** through systems innovation, policy, standards and advocacy, *led by WHO*
- **Build capacity and participation of AT users**, because some of the best ideas are community-led and often go uncaptured



AT:2030

Life-Changing Assistive Technology for All

- £10m investment by DFID
- Launched at the Global Disability Summit in July 2018, in London
- Reaching 3 million people by 2021
- Seeking match funding to extend to new geographies
- Disruptive Partnership – public/private/voluntary
- Disabled people at the heart of decision making

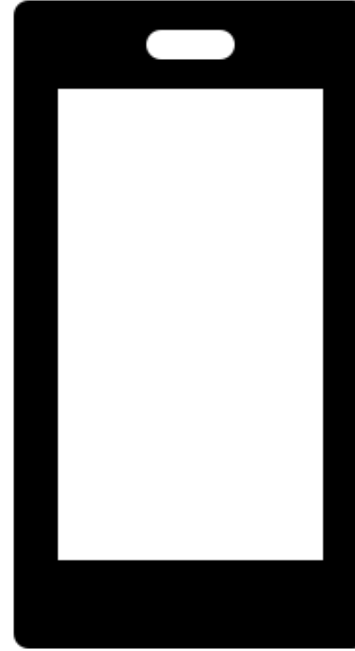






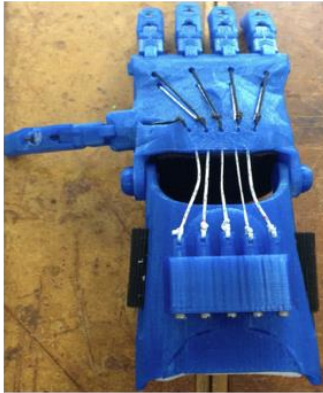
# AT2030: Digital Development

- ICT to aid the distribution, tracking and monitoring of AT use
- New methods of training powered by the Internet
- Creating connected data sets to inform policy
- Community solutions, scaled through digital accessible infrastructure



# Harnessing digital developments

## Digital Design: Local Fabrication



## Inclusive Technology: Revolutionising Classrooms





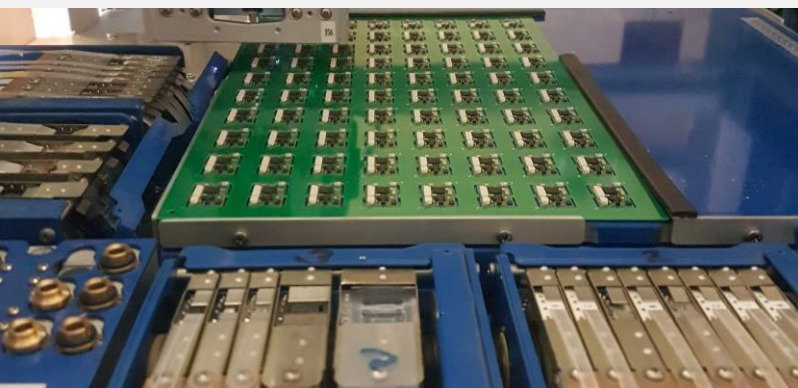
# ARCCS: Crowd-sourcing accessible routes



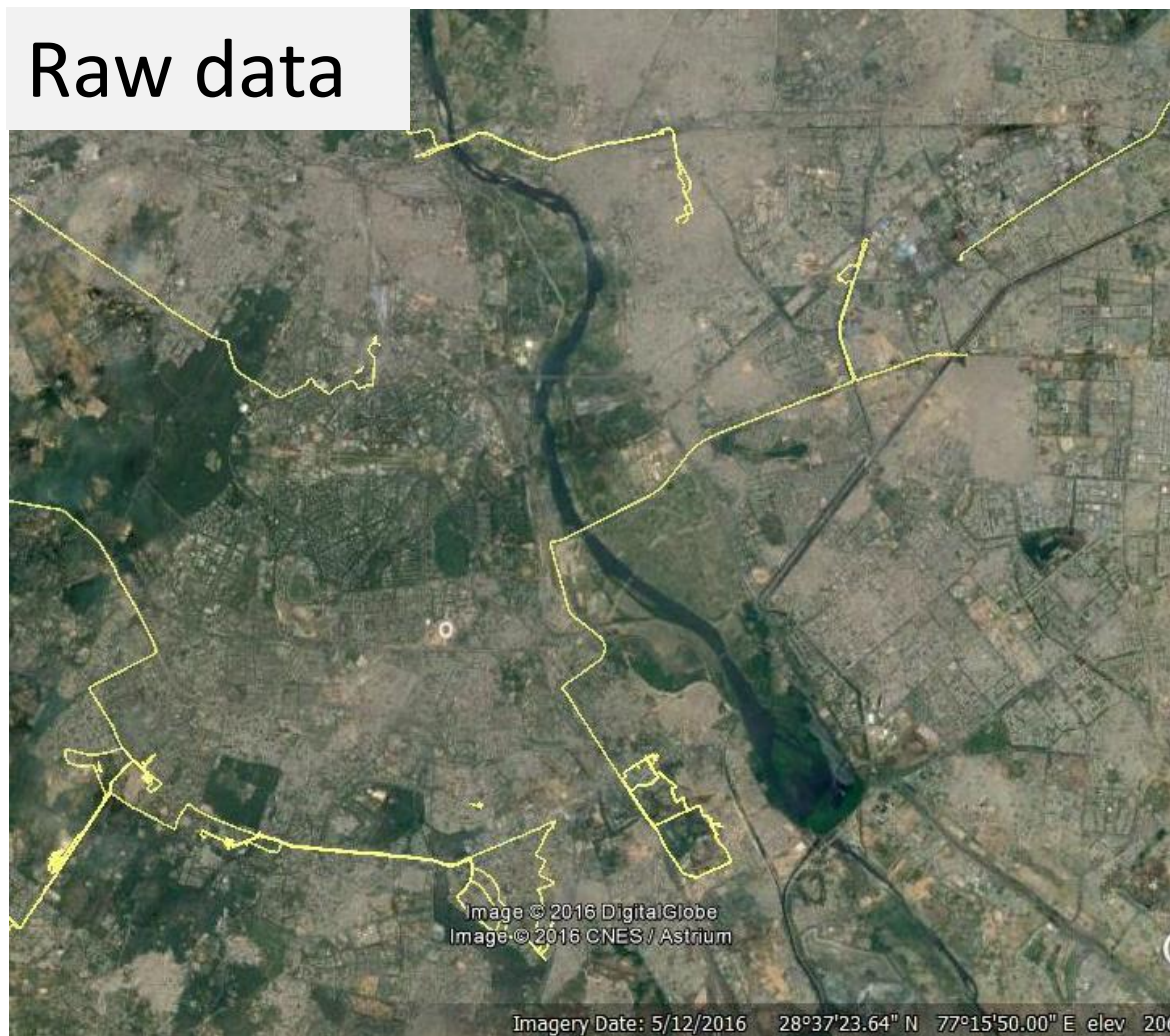
## Data Collection Team



## Sensor Development



## Raw data



## Application







Global  
Disability  
Innovation  
Hub

amparo

*"There is no back and forth with my technician. All the corrections and adjustments are solved immediately and I could have a prosthesis on the same day. That was perfect!"*

Sandy Kühn - left below-knee amputee, GER



ICRC

ENABLE**makeathon**  
IDEATION TO IMPACT

[www.amparo.world](http://www.amparo.world)



# User Involvement is essential at all stages of the process



London 2012's Built Environment Access Panel



It is easy it is to do things wrong if you don't think practically



**Over 900 million people do not have access to the Assistive Technology that they need.  
We want to change that.  
Join us?**

