

# Digital Accessibility

*In Global Pharma*





# Digital Accessibility in Global Pharma A11Y Content

## WHAT

- Information Communication Technologies
- Digital Ecosystems
- User Centered Digital Products & Services
- Web Content Accessibility Guidelines
- Design Principles
- Shift Left | Design Systems

## WHY

- Disability Inclusion
- Human Rights
- Diversity Equity & Inclusion
- Environment Social Governance
- Market
- Cybersecurity
- Artificial Intelligence

## HOW

- Policy
- Governance
- Workstreams

Summary | Q&A



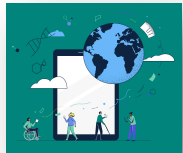
# Digital Accessibility in Global Pharma A11Y Definition



Digital Accessibility

## Digital Accessibility

The practice of designing and developing software user interface so that people with disabilities can effectively understand, interact, and respond meaningfully to the digital content – whether by their own means, or with the aid of assistive technologies.



# Digital Accessibility in Global Pharma A11Y Numeronym

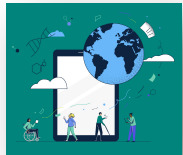
a11y stands for  
A C C E S S I B I L I T Y  
└────────── 11 characters ─────────┘

**Accessibility** is often abbreviated to **A11Y**. It is a numeronym (*number-based abbreviation*) used in place of the word "accessibility".

The number **11** refers to the number of letters omitted.

It can be pronounced "**ay-eleven-why**" or "**ay-one-one-why**" ... depending on the immediate circumstance.



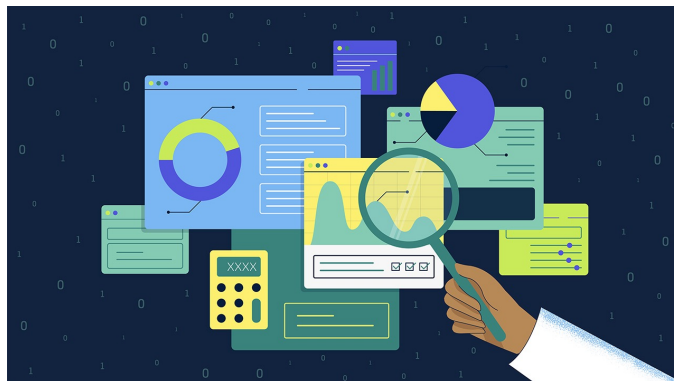


# Digital Accessibility in Global Pharma A11Y Co-Sponsorship



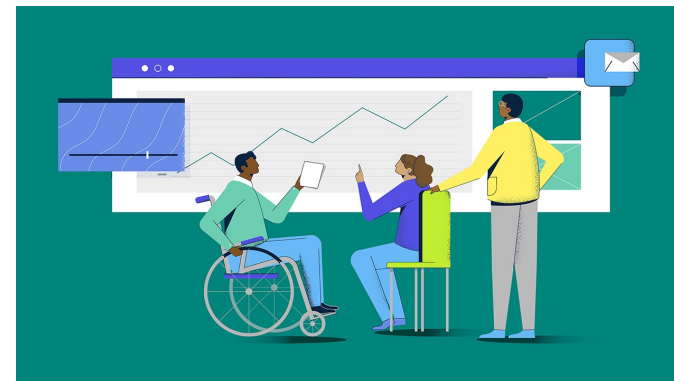
**Diversity Equity Inclusion**  
Chief Diversity Office

Inspired



**Information Technology**  
Chief Technology Office

Enabled



**Business**  
Chief Strategy Office

Empowered

WHAT 



# Digital Accessibility & Vaccination Access A11Y Co-Sponsorship



Diversity Equity Inclusion  
Chief Diversity Office

Inspired



Information Technology  
Chief Technology Office

Enabled



Business  
Chief Strategy Office

Empowered



# Digital Accessibility in Global Pharma A11Y ICTs



Information & Communication  
Technology

## Information & Communication Technologies (ICTs)

- Websites
- Mobile Applications
- Multi-media
- Enduring *internal or external* web enabled products and services
- Electronic internet documents (e.g., PDFs)
- Proprietary and licensed software



# Digital Accessibility in Global Pharma A11Y Digital Ecosystem



Information & Communication Technology

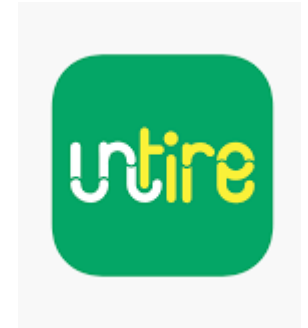




# Digital Accessibility in Global Pharma A11Y Digital Ecosystem



Information & Communication Technology





# Digital Accessibility in Global Pharma A11Y Digital Ecosystem



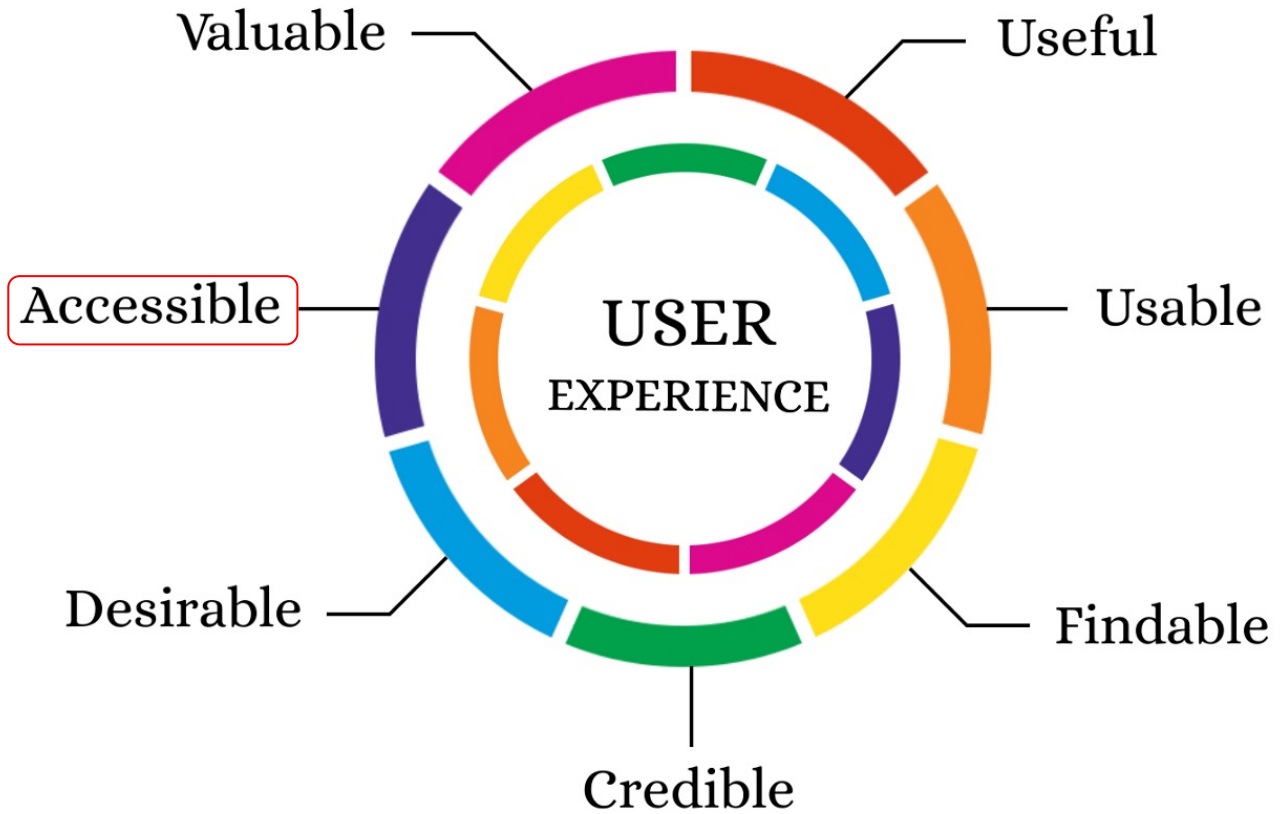
Information & Communication Technology





# Digital Accessibility in Global Pharma A11Y User Experience

## User Centered Digital Products & Services







# Digital Accessibility in Global Pharma A11Y Standards

## Web Accessibility Initiative



World Wide Web Consortium

Web Content Accessibility Guidelines



# Digital Accessibility in Global Pharma A11Y Standards

Principle	Guideline	Level A	Level AA	Level AAA
1. Perceivable	1.1 Text Alternatives	1.1.1		
	1.2 Time-Based Media	1.2.1 – 1.2.3	1.2.4	1.2.6 – 1.2.9
	1.3 Adaptable	1.3.1 – 1.3.3	1.3.4 – 1.3.5	1.3.6
	1.4 Distinguishable	1.4.1 – 1.4.2	1.4.3 – 1.4.5, 1.4.10 – 1.4.13	1.4.6 – 1.4.9
2. Operable	2.1 Keyboard Accessible	2.1.1 – 2.1.2, 2.1.4		2.1.3
	2.2 Enough Time	2.2.1 – 2.2.2		2.2.3 – 2.2.6
	2.3 Seizures	2.3.1		2.3.2 – 2.3.3
	2.4 Navigable	2.4.1 – 2.4.4	2.4.5 – 2.4.7	2.4.8 – 2.4.10
	2.5 Input Modalities	2.5.1 – 2.5.4		2.5.5 – 2.5.6
3. Understandable	3.1 Readable	3.1.1	3.1.2	3.1.3 – 3.1.6
	3.2 Predictable	3.2.1 – 3.2.2	3.2.3 – 3.2.4	3.2.5
	3.3 Input Assistance	3.3.1 – 3.3.2	3.3.3 – 3.3.4	3.3.5 – 3.3.6
4. Robust	4.1 Compatible	4.1.1 – 4.1.2	4.1.4 – 4.1.3	



# Digital Accessibility in Global Pharma A11Y Design Principles



Digital Accessibility

1. Allow for user preference
2. Allow the user to stay in control
3. Communicate clearly
4. Do no harm
5. Optimize interactivity
6. Properly structure elements
7. Provide equivalent experiences
8. Support wayfinding and navigation

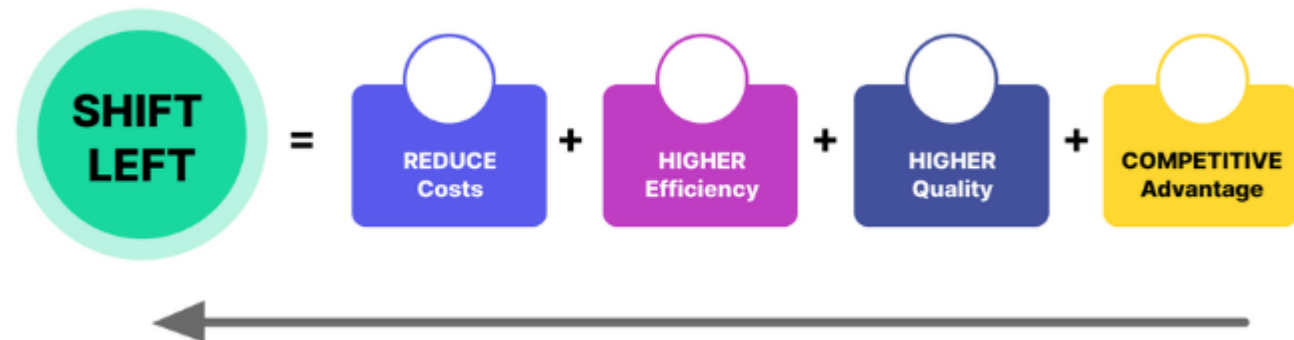


# Digital Accessibility in Global Pharma A11Y Shift Left

Shift LEFT



The practice of moving testing, quality, and performance evaluation early in the development process, often before any code is written.





# Digital Accessibility in Global Pharma A11Y Shift Left

## Style Guides

## Master brands

## Design Systems

Lorem ipsum dolor sit amet

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Button

H1 46/60/0.1

Scientific curiosity

H2 38/52/0.1

Scientific curiosity

H3 30/40/0.1

Scientific curiosity

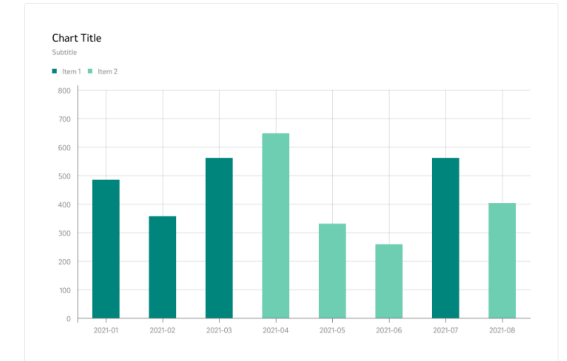
Scientific curiosity

Scientific curiosity

Scientific curiosity

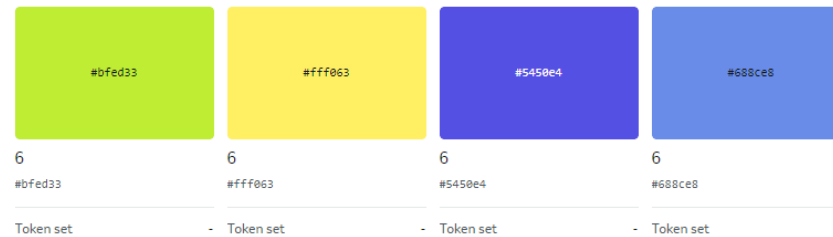
### Single Column Chart

A column chart uses series of columns to display the value of the dimension. The horizontal axis shows the classification dimension and the vertical axis shows the corresponding value.



### Accent

Our accent palette is only used to complement our primary and secondary palette. It allows for rich and expressive combinations in infographics and illustrations.



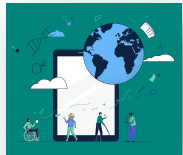
### Common Scales

Our company's projects cover a large number of products of different types and even different orders of magnitude. In order to help designers of various levels to have consistency and similar rhythm in designing page layout, to unify designing language and reduce the restoration losses, MDS is proposing the concept of UI common scales. There is a set of arrays that can be used as dimensions for UI layout decision. All the numbers are multiples of 8 and have a dynamic sense of rhythm. After verification, it can help us to achieve a faster and better design decision making of layout design.

4	16	24	40	64	104	168	272	440	720	1152	1920
8	12	20	32	48	80	128	208	336	552	896	1440



WHY 

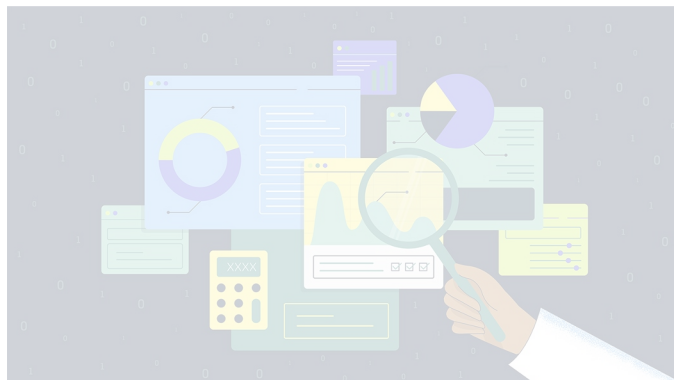


# Digital Accessibility in Global Pharma A11Y Co-Sponsorship



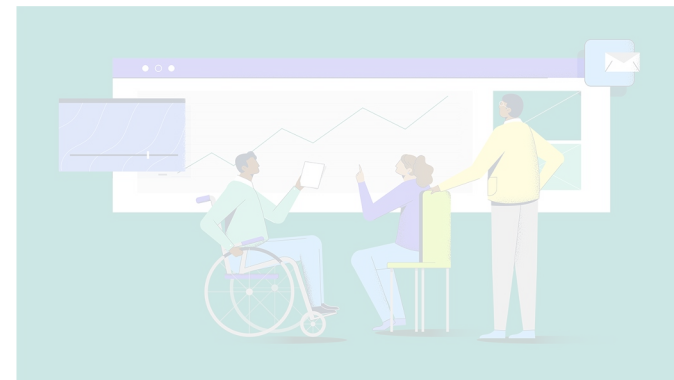
**Diversity Equity Inclusion**  
Chief Diversity Office

Inspired



**Information Technology**  
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Enabled



**Business**  
Chief Strategy Office

Empowered



# Digital Accessibility in Global Pharma A11Y Types of Disabilities

## Disability Inclusion in Vaccination Strategies



An essential part of making a accessibility strategy truly equitable, diverse, and inclusive.

- All races, genders, sexual orientation, nationalities, religions, incomes, and social classes.
- Physical, cognitive, mental health, learning, hearing, visual, and speech.

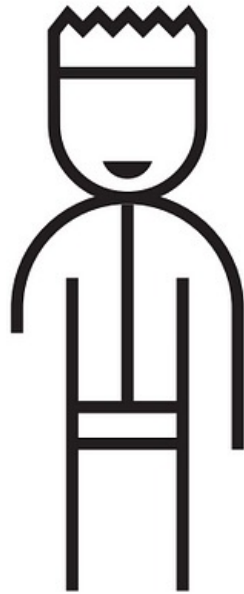




# Digital Accessibility in Global Pharma A11Y Types of Disabilities

## Permanent      Temporary      Situational

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One arm



Arm injury

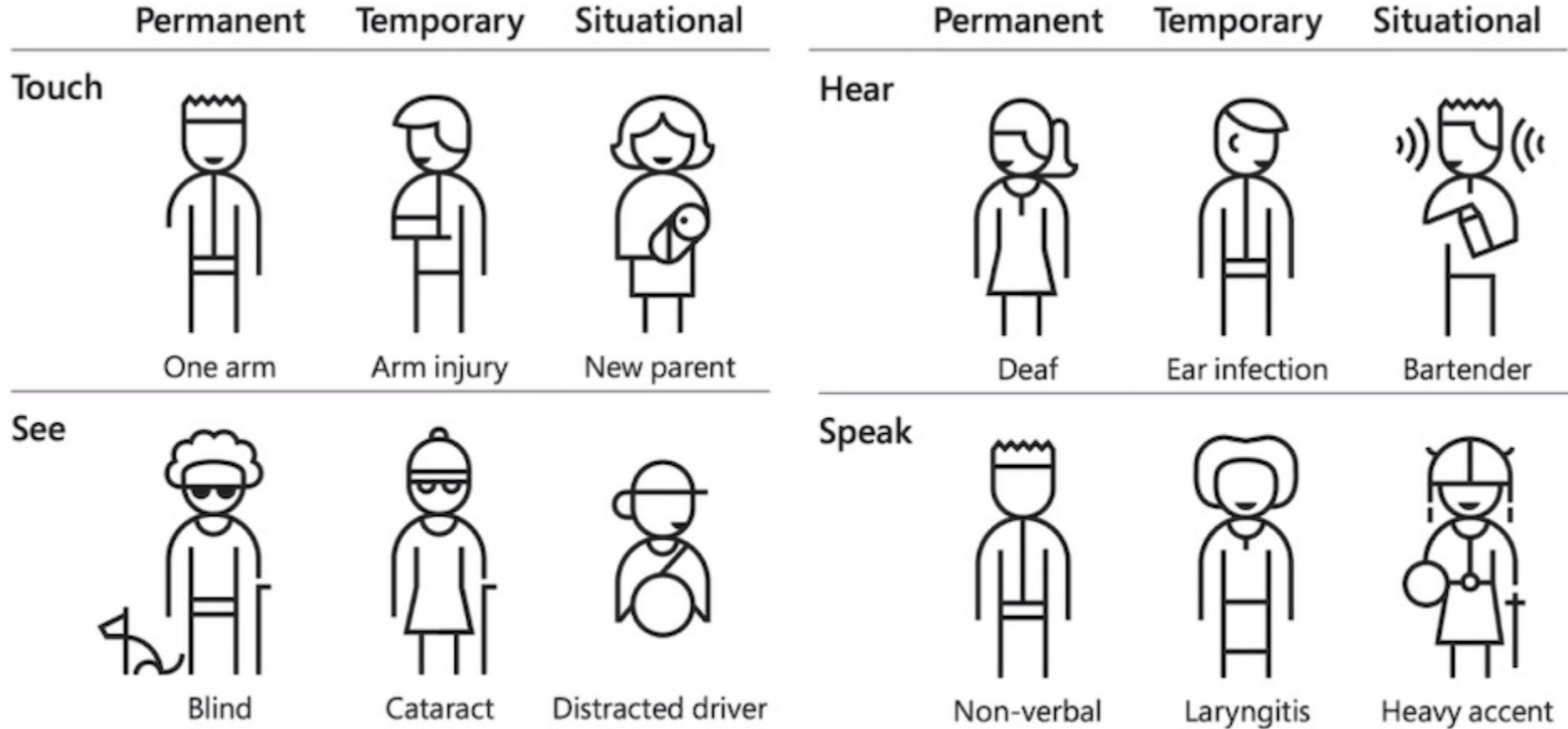


New parent

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# Digital Accessibility in Global Pharma A11Y Types of Disabilities





# Digital Accessibility in Global Pharma A11Y Types of Disabilities

ADHD      Fibromyalgia      **Dyslexia**      Crohn's Disease      Arthritis

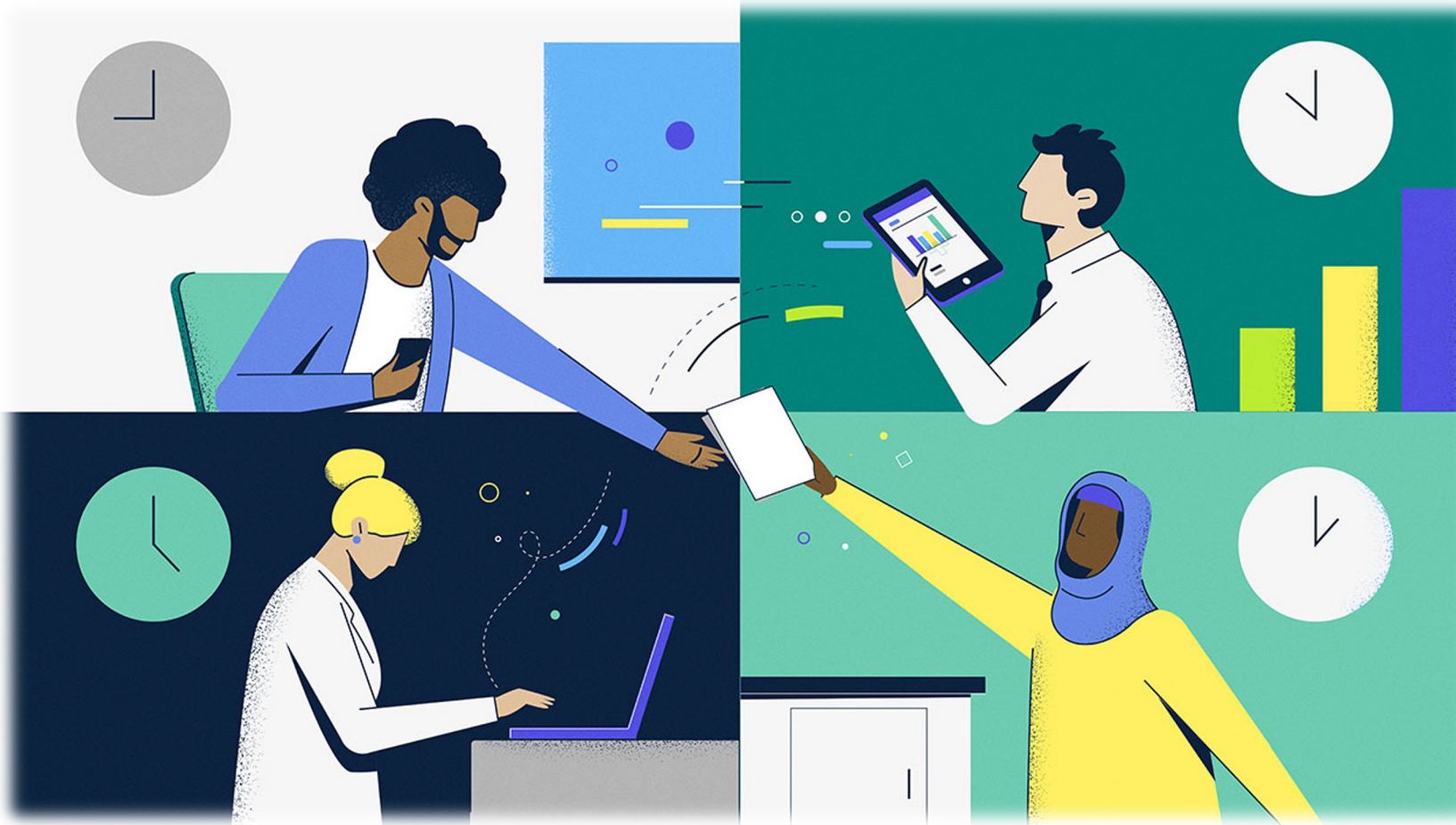
**Sometimes disabilities are invisible.**

An infographic on a blue background featuring five white human silhouettes of varying sizes. Each silhouette has a label for a disability: ADHD, Fibromyalgia, Dyslexia (the largest silhouette), Crohn's Disease, and Arthritis. Below the silhouettes, the text 'Sometimes disabilities are invisible.' is written in white.



# Digital Accessibility in Global Pharma A11Y Disability Inclusion

Disability representation can often be overlooked



The lack of disability representation can be attributed to several factors, including:

- Inaccessible workspaces & places
- Bias and discrimination
- Limited understanding of disabilities



# Digital Accessibility in Global Pharma A11Y Disability Inclusion

People with disabilities offer so much more than their skill sets.



They often come from diverse walks of life that can be invaluable not only to their role within your organization, but to the overall company culture.

Benefits of disability inclusion in the workplace include:

- Innovation and creativity
- Increased engagement and retention
- Enhanced reputation



# Digital Accessibility in Global Pharma A11Y Human Rights



United Nations

## Convention on the Rights of Persons with Disabilities

### Article 9 – Accessibility

- Live independently
- Participate fully in all aspects of life

- Physical environment
- Transportation
- Information
- Communications
- Urban, rural

**Promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.**





# Digital Accessibility in Global Pharma A11Y Human Rights

## American with Disabilities Act

### Title III – Public Accommodations

- Provide full and equal enjoyment of goods and services
- Provide appropriate communication aids and services

**ADA**  
Americans with Disabilities Act

- Retail
- Financial Services
- Hospitality
- Food & Beverage
- Entertainment
- Healthcare

**A website with inaccessible features can limit the ability of people with disabilities to access a public accommodation's goods, services, and privileges available through that website.**



## Digital Accessibility in Global Pharma A11Y DEI



- Diversity & inclusion fuels our purpose
- Our workforce diversity represents the people we serve
- Inclusion and belonging are equally important





# Digital Accessibility in Global Pharma A11Y ESG

**Accessibility** is key to *Environmental Social Governance*



## Access to Health

In collaboration with key stakeholders, we work to ensure our science advances health care, and our products are accessible and affordable to those in need.



## Employees

We recognize that our ability to excel depends on the integrity, knowledge, imagination, skill, diversity and wellbeing of our employees.



## Environmental Sustainability

We consider the impacts of our operations and strive to operate our business sustainably to support the health of our planet and its people.



## Ethics & Values

Through our unwavering commitment to transparency, we earn the trust and confidence of our stakeholders.





# Digital Accessibility in Global Pharma A11Y Disability Market



1.85 billion Persons with Disabilities



3.3 billion Caregivers (Family & Friends)

**\$13+ trillion in disposable income**

[2020 Global Economics of Disability](#)

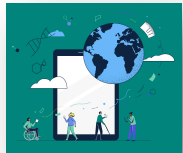


# Digital Accessibility in Global Pharma A11Y Cybersecurity



[2021 Why Accessibility is Crucial to Successful Security Awareness Training](#)

[2019 Accessibility is Privacy & Security](#)



# Digital Accessibility in Global Pharma A11Y Artificial Intelligence

Artificial Intelligence, Augmented Reality, Virtual Reality, & Accessibility



A new way of interacting with one another

**Efficiency**

**Data Sets**



Accountability

HOW 



# Digital Accessibility in Global Pharma A11Y Co-Sponsorship



Diversity Equity Inclusion  
Chief Diversity Office

Inspired



Information Technology  
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Enabled



Business  
Chief Strategy Office

Empowered



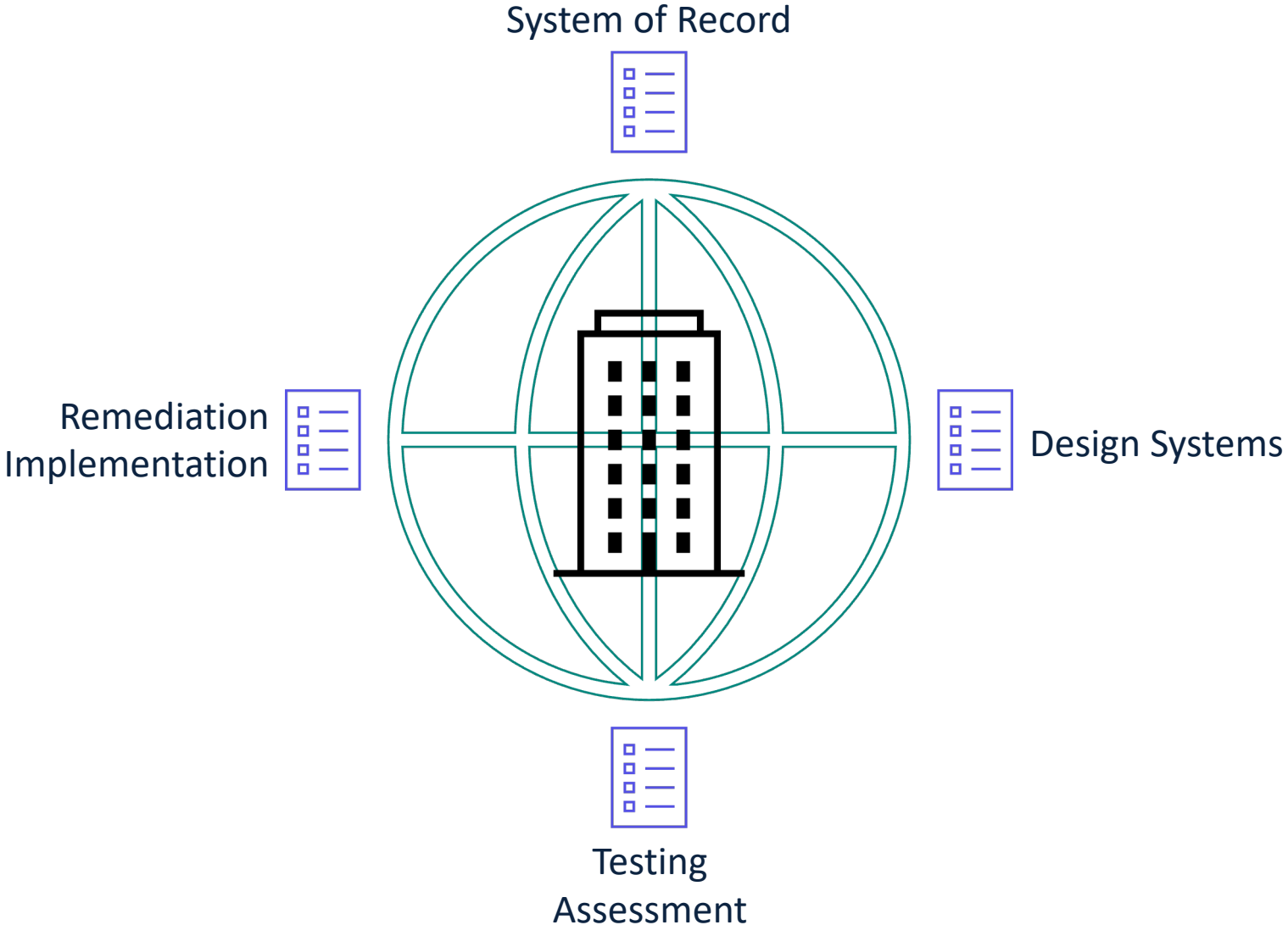


# Digital Accessibility in Global Pharma A11Y Cross Organizational





# Digital Accessibility in Global Pharma A11Y Policy Landscape







# Digital Accessibility in Global Pharma A11Y Policy Governance





# Digital Accessibility in Global Pharma A11Y Governance Models

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Steering Committee



# Digital Accessibility in Global Pharma A11Y Governance Models



Steering Committee



Leadership Forum



# Digital Accessibility in Global Pharma A11Y Governance Models



Steering Committee



Leadership Forum



Champion Network



# Corporate Accessibility A11Y Accessibility Steward Network





# Digital Accessibility in Global Pharma A11Y Governance Models



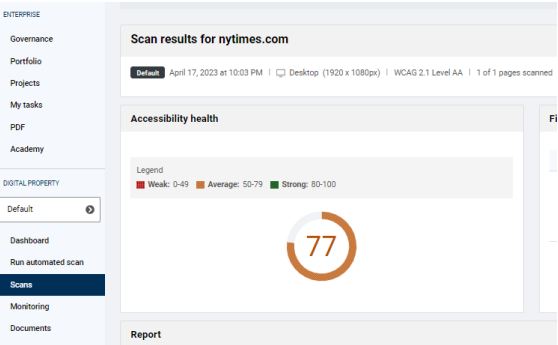
Steering Committee



Leadership Forum



Champion Network



System of Record





# Digital Accessibility in Global Pharma A11Y Governance Models



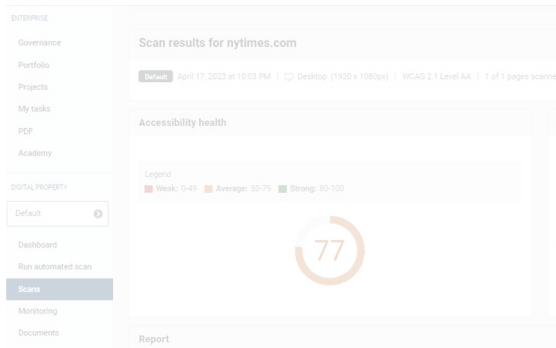
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Champion Network



System of Record



Supplier Management



# Digital Accessibility in Global Pharma A11Y Governance Models



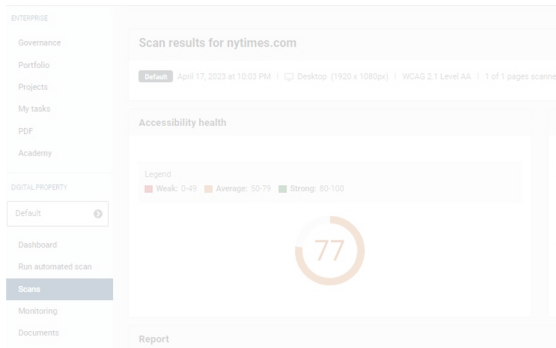
Steering Committee



Leadership Forum



Champion Network



System of Record



Supplier Management



Accountability





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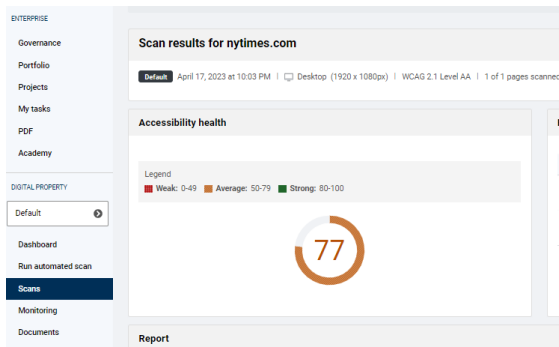
Steering Committee



Leadership Forum



Champion Network



System of Record



Supplier Management



Accountability



# Digital Accessibility in Global Pharma A11Y Workstreams

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Communication



# Digital Accessibility in Global Pharma A11Y Workstreams



Communication



Training



# Digital Accessibility in Global Pharma A11Y Workstreams



Communication



Training



Change



# Digital Accessibility in Global Pharma A11Y Workstreams



Communication



Training



Change



# Digital Accessibility in Global Pharma A11Y Roadmap



## External Websites & Mobile Apps



## Internal Websites & Mobile Apps



## Marketing Communications

Email, Banner Ads, SMS, Tencent, iPad, SoMe, Product Labeling, etc.



## Systems & Platforms



## Supplier Management



## Electronic Documents

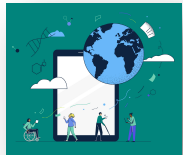


## Workforce Tools



# Summary



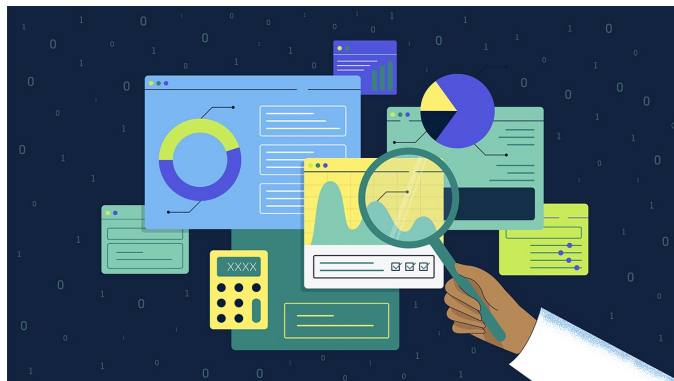


# Digital Accessibility & Vaccination Access A11Y Co-Sponsorship



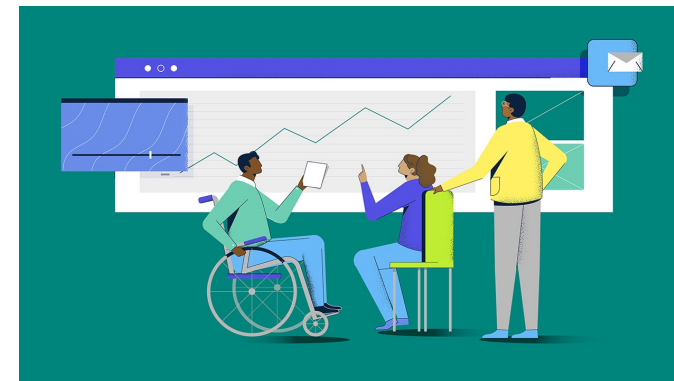
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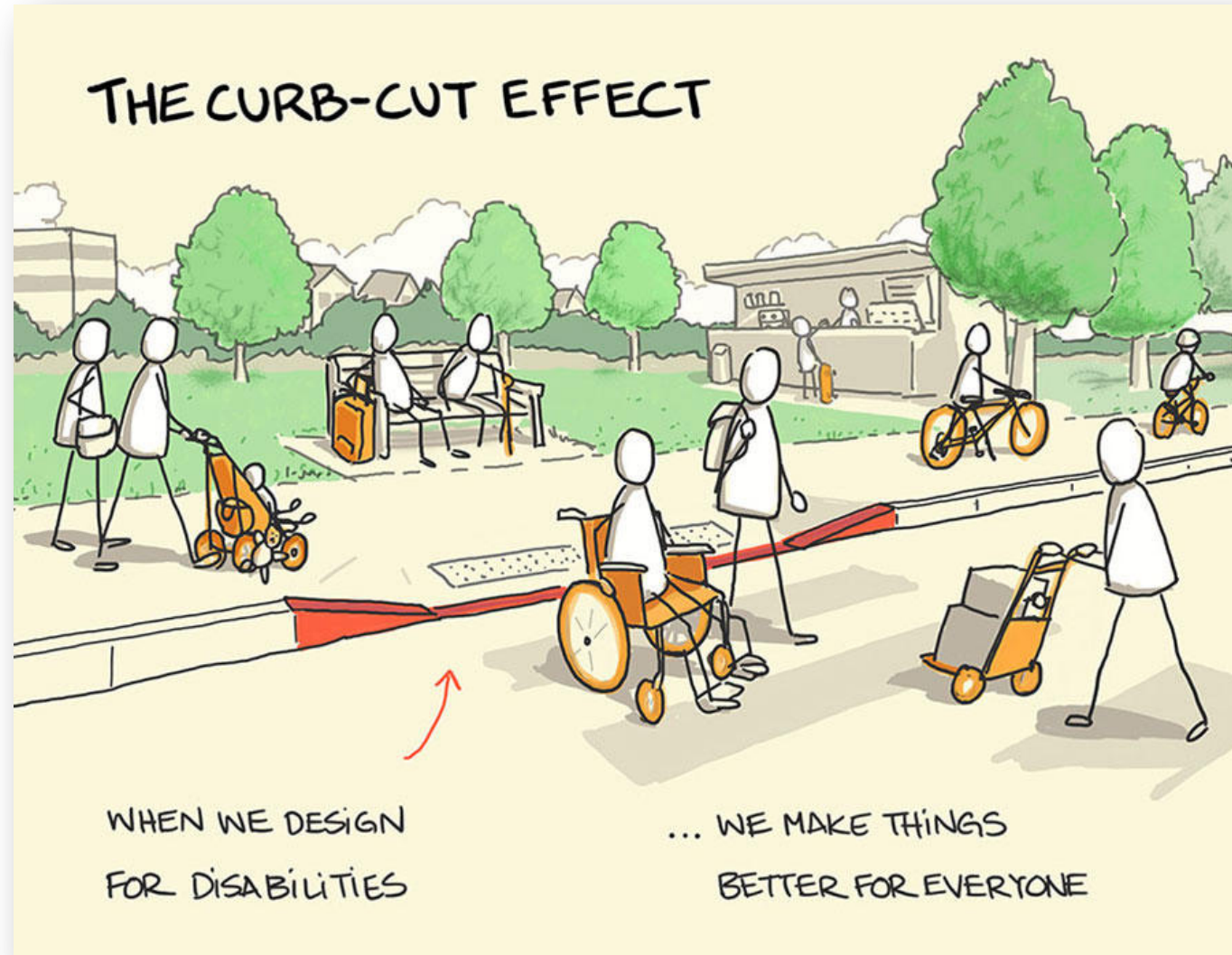
**Business**  
Chief Strategy Office

Empowered





# Digital Accessibility A11Y Essential for Some | Useful for All



Q&A ?

# Thank You



Dr. Stephen Framil  
Corporate Global Head of Accessibility  
Merck & Co., Inc.

