

Technology Leaving No One Behind

What is Universal Design?

DTU Skylab

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LEAVE NO ONE BEHIND

Universal design is sustainable



SDG 9.1

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on **affordable and equitable access for all**



SDG 11.3

By 2030, enhance **inclusive and sustainable urbanization** and capacity for participatory, integrated and sustainable human settlement planning and management in all countries



SDG 11.7

By 2030, provide **universal access** to safe, inclusive and accessible, green and public spaces, in particular for women and children, **older persons and persons with disabilities**

11x

"Persons with disabilities" mentioned explicitly in the SDGs

23x

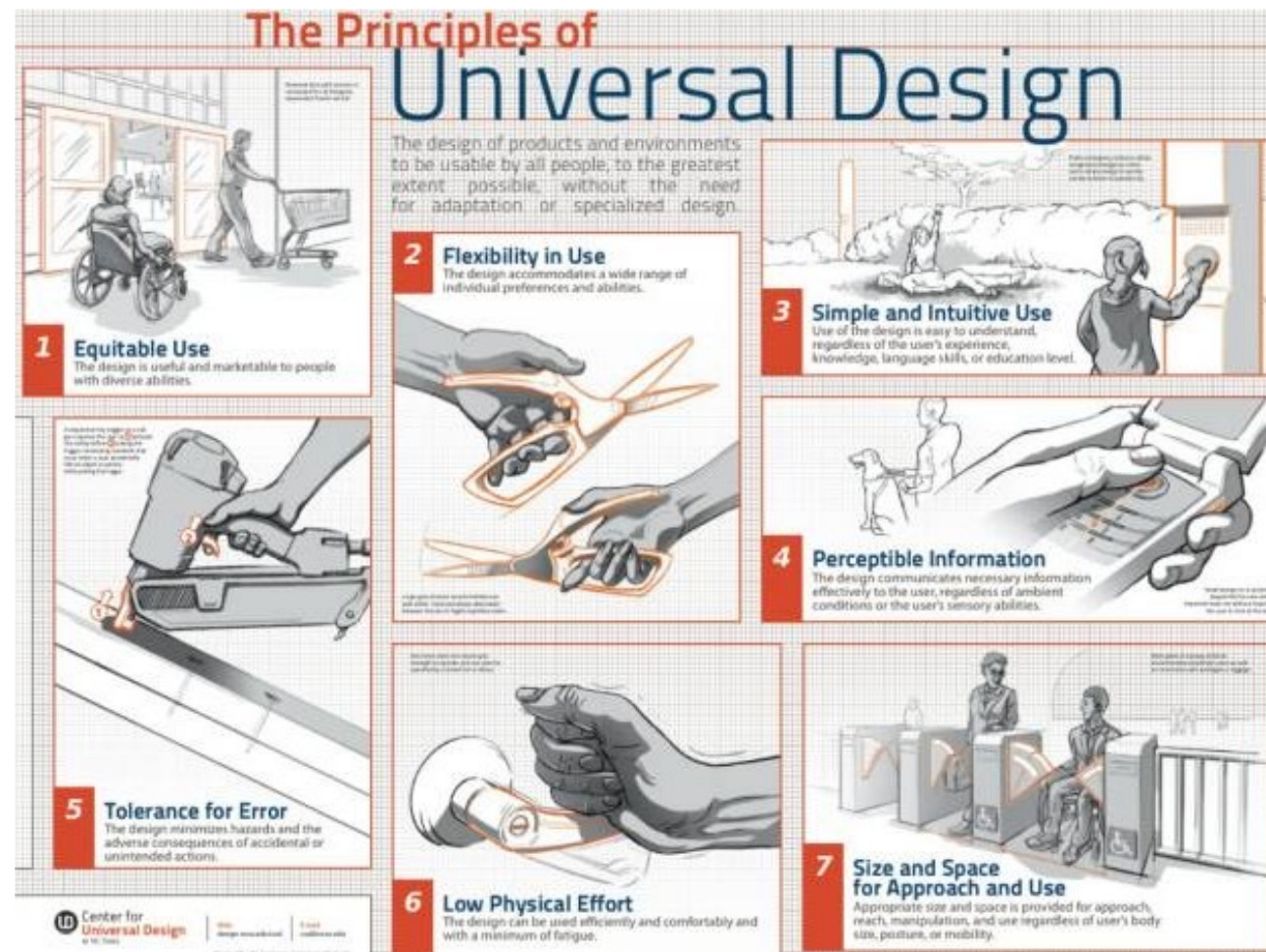
"Persons in vulnerable situations" mentioned explicitly in the SDGs



Universal design

“...the design of **mainstream** products, services and environments in such a way that they can be **used by all people**, to the greatest extent possible, without the need for adaptation or specialized design.”

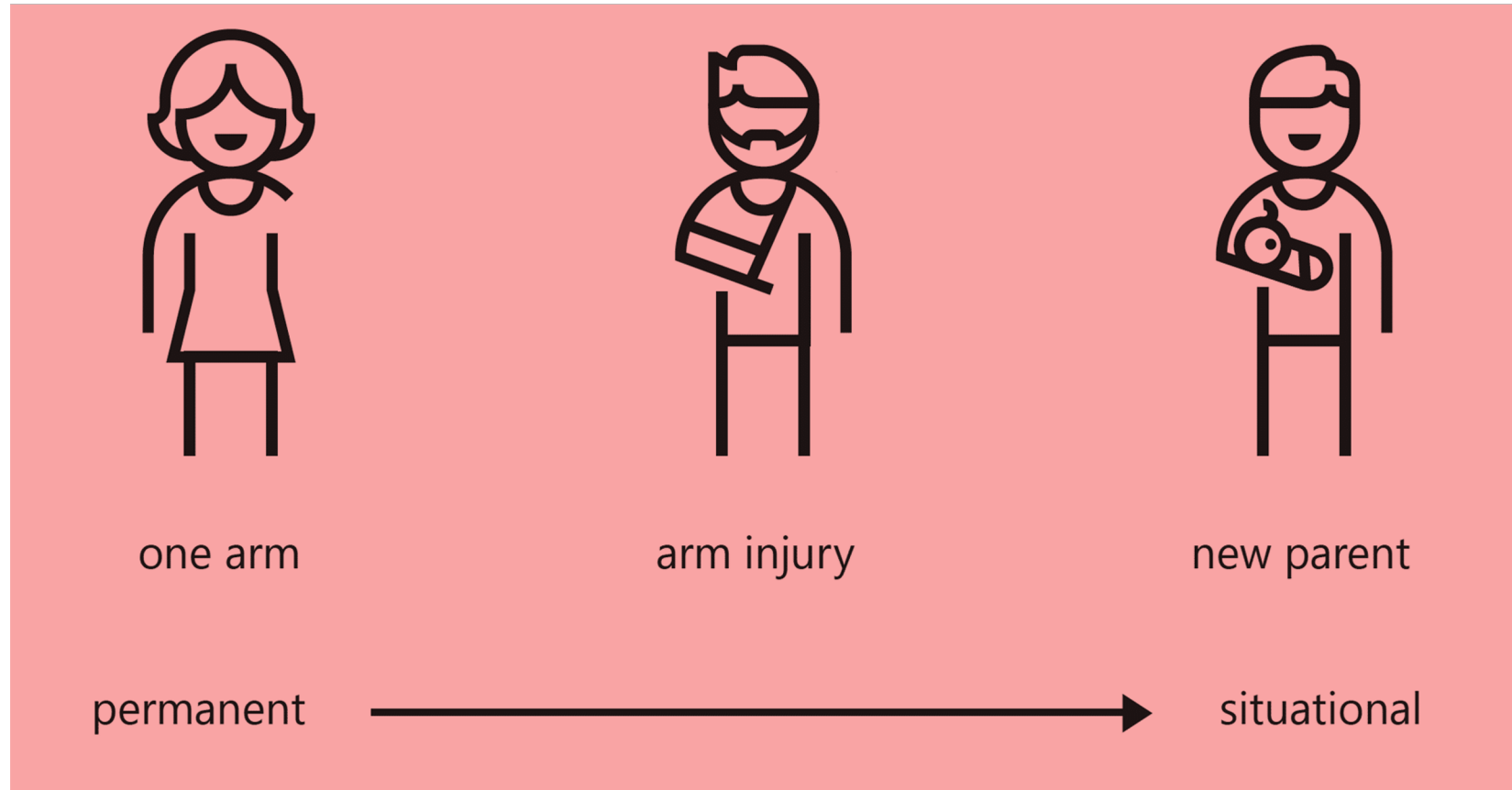
MINDSET & SET OF SKILLS



Universal design

We are all
temporarily
able bodied

Mismatch
between
environment
and peoples
abilities create
exclusion



The 7 principles of Universal design

Tolerance for error

The design minimizes hazards and the adverse consequences of accidental or unintended actions



The 7 principles of Universal design

Flexibility in use

The design accommodates a wide range of individual preferences and abilities



Right & left-handed scissors

The 7 principles of Universal design

Simple and intuitive use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level



The 7 principles of Universal design

Perceptible information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities



The 7 principles of Universal design

Low physical effort

The design can be used efficiently and comfortably and with a minimum of fatigue



The 7 principles of Universal design

Size and space for approach and use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture or mobility



The 7 principles of Universal design

Equitable use

The design is useful and marketable to people with different abilities



DTU Skylab

an interdisciplinary hub for technology-based innovation & entrepreneurship at the Technical University of Denmark.

Learning environment for innovation & entrepreneurship at DTU since 2014

Website

LinkedIn



Technology Leaving No One Behind

TLN1B is a program providing opportunities and support to making inclusion and accessibility a natural part of engineering new sustainable technological solutions at DTU. This is done through research, developing teaching material, concrete tools and providing inputs to three different sectors:

- **EDUCATION:** Inclusion and accessibility introduced and integrated in education across engineering disciplines
- **ENTREPRENEURSHIP:** Strengthen current and driving new offers supporting and accelerating entrepreneurship and start-ups
- **STRATEGY:** Build strategic ecosystems and partnerships externally and internally at the Technical University of Denmark

Universal Design Guide

Website



DTU

