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Technology Trends 2021

# Assistive Technology

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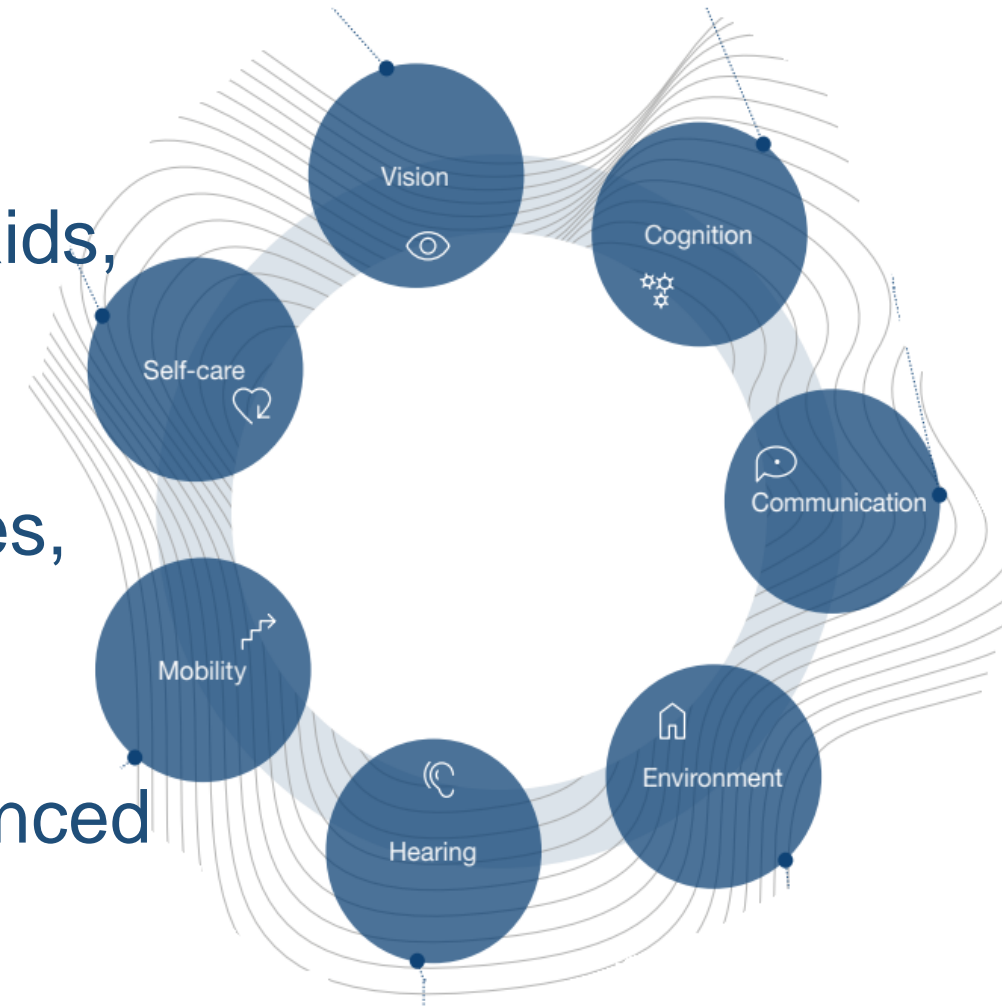
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# Is Assistive Technology what you think it is?

- Conventional – spectacles, hearing aids, walking aids
- Emerging – virtual reality devices, assistive robots, bone conduction devices, exoskeletons
- Enabling technologies – artificial intelligence, autonomous vehicles, advanced sensors



# Trend 1: AT is expanding

- **Conventional** and **emerging** assistive products
- **Wide array of products**
- Relevant for **everyone**



## Trend 2: Convergence with several disciplines

- From pure assistance to enhancement and recovery
- More invasive assistive products

# Trend 3: Connected, smart, efficient



# Trend 4: A diverse and dynamic environment

- From start-ups to multinationals
  - 3 company profiles:
    - **specialized AT companies**
    - **consumer electronics goods companies**
    - **automotive industry**
- Universities
- Independent inventors

## Trend 5: Changing geography

- U.S., Japan and Europe
- China and Republic of Korea
- India, Israel, Russian Federation, Singapore

# Use of industrial designs

- Design important for adoption or not of assistive technology
- Design applications along with patents is a holistic strategy followed by most top players



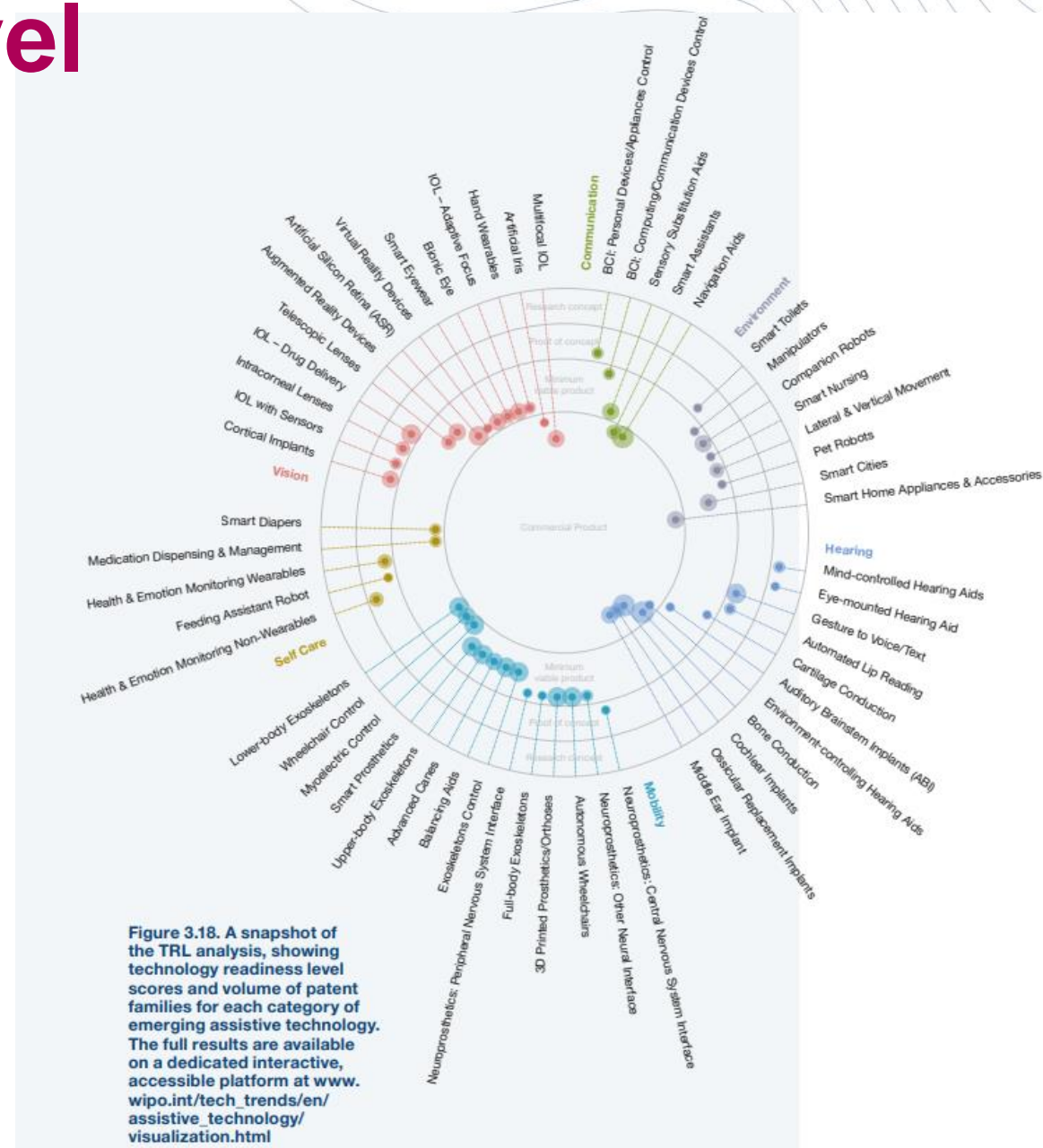
# Challenges



# Challenge 1: Getting emerging technologies to market

- **Only 18%** commercialized
- IP and transfer of technology
- Regulatory and other factors
- More investment needed

# Technology readiness level



## Challenge 2: Accessibility

- Lack of awareness and communication
- Cost
- Policy and insurance

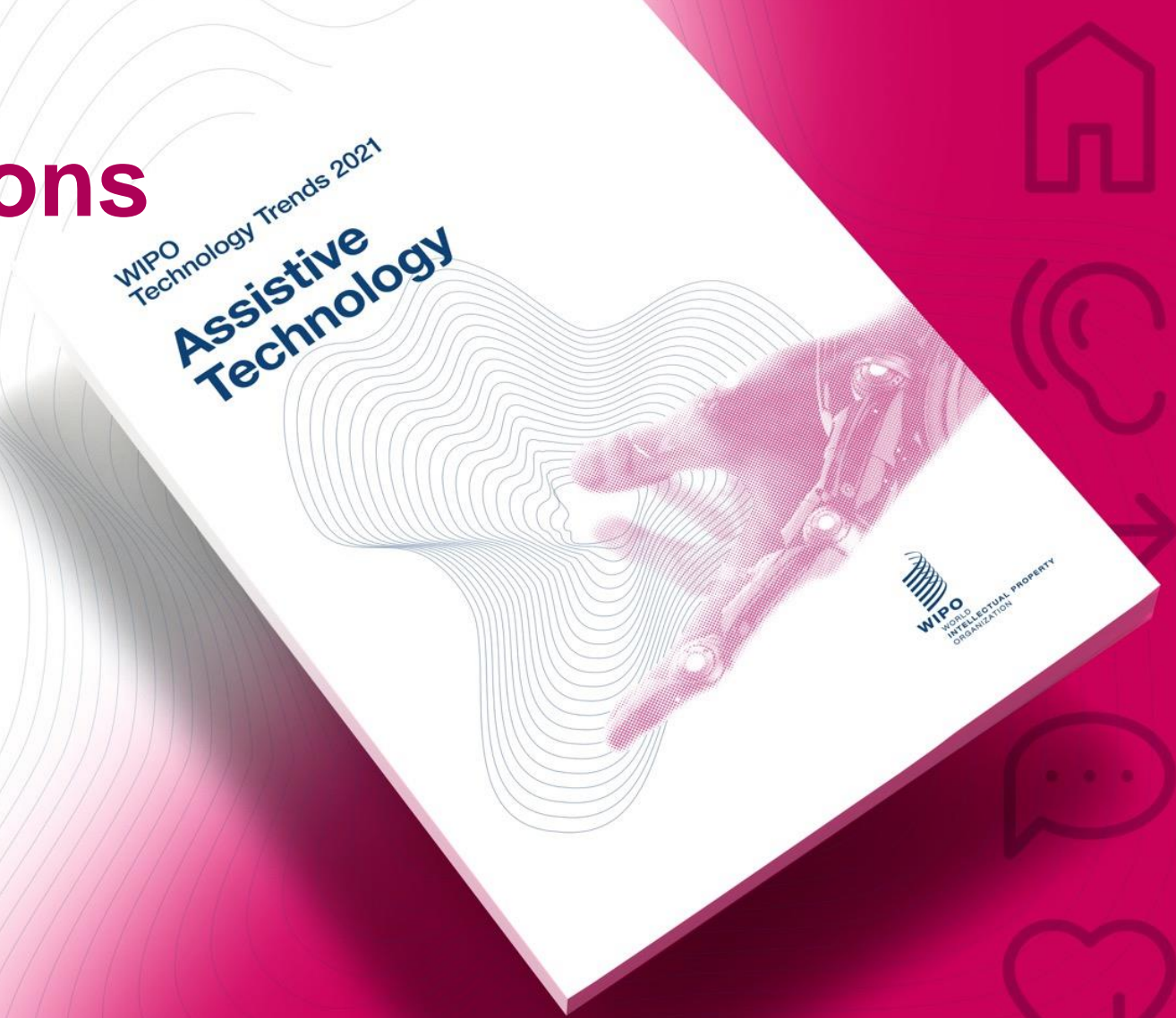


# Future looks promising

- More opportunities – aging population, varied needs
- From only assistance to enhancement or recovery
- New considerations
  - Ethical (A.I., brain computer interfaces)
  - Data privacy

# Accessible report

## Interactive visualizations



[www.wipo.int/tech\\_trends/assistive\\_technology](http://www.wipo.int/tech_trends/assistive_technology)