

## **D2.3 Report Summarizing Findings and Implications**

### **Delphi Study on Assistive Technologies for Social Inclusion**

#### **a-STEP COST Action CA19104**

#### **Working Group 2: Collaborative Evaluation**

### **Executive Summary**

This report presents comprehensive findings from a Delphi study examining stakeholder perspectives on Assistive Technologies (ATs) for people with Autism Spectrum Disorder and Intellectual Disabilities. The research engaged 284 experts from 31 European countries, focusing on development, implementation, and adoption of ATs with projections for 2030.

### **1. Study Design**

#### **1.1 Methodology**

The research utilized the Delphi method, engaging 284 experts across 31 European countries. The study examined perspectives across education, employment, society, and technology domains, with projections extending to 2030. This methodological approach enabled comprehensive analysis of future developments and challenges in AT implementation.

#### **1.2 Stakeholder Groups**

The study incorporated diverse perspectives from industry experts, policymakers, practitioners, technology developers, and service providers. This multi-stakeholder approach ensured comprehensive coverage of viewpoints and experiences across the AT landscape.

### **2. Key Findings**

#### **2.1 Primary Challenges**

##### **Economic Challenges:**

Development costs for personalized and multilingual devices present significant barriers to implementation. Insufficient funding for implementation and limited resources for training programs and open source software further complicate widespread adoption. Financial constraints affect all aspects of AT development and deployment.

##### **Political Challenges:**

Legislative support requirements and policy alignment needs create substantial implementation barriers. Gaps in regulatory frameworks and coordination challenges among different jurisdictions further complicate AT adoption. In addition, political challenges are considered the biggest ones regarding equal membership according to the stakeholders. The political factors significantly influence implementation success.

#### Social Challenges:

Inclusivity concerns and societal acceptance of ATs remain barriers in different areas, such as public service trainings, labour market accessibility and AT assessment. Integration challenges within existing systems and cultural adaptation requirements affect implementation success. These social factors require careful consideration in AT development and deployment.

#### Technological Challenges

Device customization and technical adaptation requirements present operational challenges, though these prove less significant than the other barriers. Integration complexities require attention but remain manageable compared to economic and political challenges.

### **3. Future Projections**

#### **3.1 High-Probability Developments by 2030**

The study identifies strong likelihood for development of personalized AT devices for reading and writing. Public service training for addressing autism-specific needs and development for educators show promising development potential. Comprehensive AT assessment systems are expected to emerge during this period.

#### **3.2 Moderate-Probability Developments**

Integration of AT in classroom settings and workplace implementation show moderate likelihood of success. Open source software also indicates a moderate probability of adoption by 2030. Accessibility improvements across various domains demonstrate potential for gradual advancement.

### **4. Stakeholder Perspectives**

#### **4.1 Industry Viewpoint**

Industry stakeholders demonstrate highest optimism regarding technological advancement potential. Their strong belief in implementation possibilities reflects deep understanding of market dynamics and innovation opportunities.

#### **4.2 Practitioner Viewpoint**

Practitioners emphasize practical implementation considerations and express concern regarding resource availability. Their focus on user needs and training requirements reflects front-line

implementation experience. Nevertheless, those stakeholders are optimistic about the development of educators in terms of the use of ATs.

## **5. Impact Assessment**

### **5.1 Anticipated Benefits**

Implementation of AT solutions promises improved social inclusion and enhanced quality of life for users. Educational outcomes show potential for significant improvement, while employment opportunities may expand substantially. Users can expect greater independence through technology adoption.

### **5.2 Implementation Requirements**

Success requires robust cross-sector collaboration and sustained funding mechanisms. Policy support must accompany comprehensive training infrastructure development. Technical support systems need systematic implementation.

## **6. Recommendations**

### **6.1 Short-term Actions**

Immediate priorities include establishing funding mechanisms for AT development and creating comprehensive training programs for practitioners. Implementation guidelines require development, alongside initialization of stakeholder collaboration networks.

### **6.2 Long-term Strategies**

Sustainable funding models must support long-term development. Comprehensive policy frameworks require establishment, accompanied by ongoing evaluation systems. Global adaptation strategies need development for broader implementation.

## **7. Future Research Needs**

### **7.1 Priority Areas**

Research must expand into global perspective studies and cost-effectiveness analysis. Implementation methodologies require further development, alongside impact assessment frameworks. Cultural adaptation studies deserve particular attention.

### **7.2 Knowledge Gaps**

Understanding of long-term effectiveness requires expansion. Cultural variation impacts need further study, while cost-benefit relationships demand deeper analysis. Implementation best practices require additional research attention.

## **8. Conclusions**



The Delphi study reveals significant potential for AT to improve outcomes for people with ASD and ID, particularly within education and employment contexts. Success depends upon addressing economic and political challenges through collaborative efforts between industry, policymakers, and practitioners. While technological challenges exist, they prove less significant than other implementation barriers.

## 9. Next Steps

Implementation requires detailed guidelines and stakeholder engagement frameworks. Monitoring systems need establishment, alongside pilot program initialization. Evaluation mechanisms require development for ongoing assessment of effectiveness. Financial support is essential to facilitate the accessibility and distribution of assistive technologies within sectors, such as education and employment.

Reference:

This report is based on: Paulina Tsvetkova, Carla Sousa, Daniel Beiderbeck, Aneta M. Kochanowicz, Branislav Gerazov, May Agius, Tomasz Przybyła, Merita Hoxha and Alan H. Tkaczyk (2024). International Perspectives on Assistive Technologies for Autism 2 and Intellectual Disabilities: Findings from a Delphi Study.