NewWorkTech

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NewWorkTech
From the Margins to the Masses:
Standard Practices and Innovative Uses of Technology in Augmenting Different Abilities of People in Worklife

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Table 1. General information.

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No.	Legal name	Short name	Country
1	TAMPEREEN KORKEAKOULUSAATIO SR (Tampere University)	TAU	FI
2	OULUN YLIOPISTO (University of Oulu)	UOULU	FI
3	Autismisäätiö sr (Autism Foundation Finland)	AFF	FI
4	KOBENHAVNS UNIVERSITET (University of Copenhagen)	UCPH	DK
5	KOBENHAVNS KOMMUNE IBOS (The Danish Institute for Visual Impairment IBOS)	IBOS	DK
6	CONSIGLIO NAZIONALE DELLE RICERCHE (The National Research Council of Italy)	CNR	IT
7	ASSOCIAZIONE ITALIANA PERSONE DOWN (The Italian Down Syndrome Association)	AIPD	IT
8	UNIVERSITY OF WARWICK	UW	UK
9	EUROPEAN PLATFORM FOR REHABILITATION	EPR	BE
10	BE MY EYES	BME	DK

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1. Introduction: Policy context and research objectives

1.1 Policy issues addressed by NewWorkTech

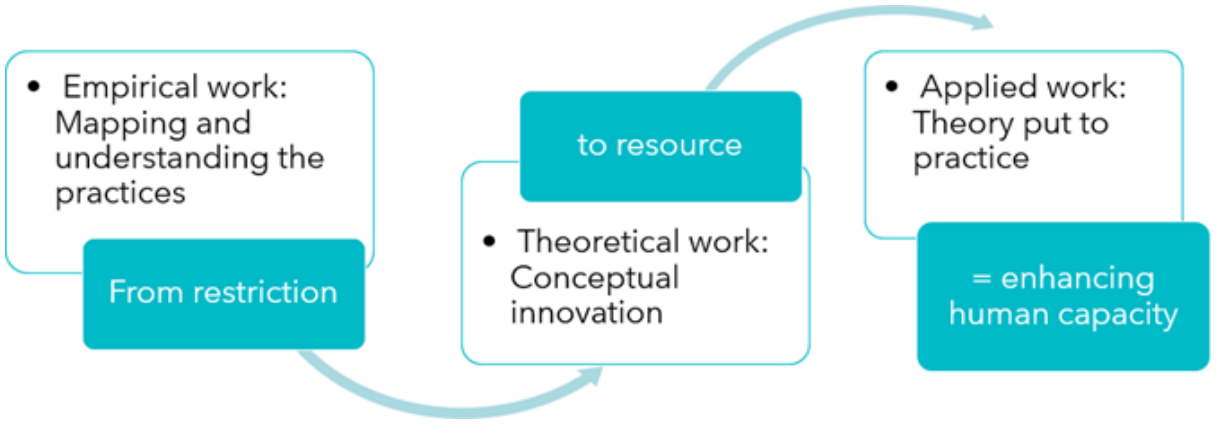
Across Europe, labour market participation among persons with disabilities remains significantly lower than among the general population: in 2024, the disability employment gap was 24 pp (Eurostat, 2025), indicating a striking difference in the employment of persons with disabilities compared to persons without disabilities. Eurofound (2025) underlined how, in order to overcome labour and skills shortages in Europe, engaging underutilised labour groups will be key, including people with disabilities who still face significant barriers to participation.

While digital technologies have transformed workplaces, accessibility barriers continue to limit employment opportunities and career progression for people with disabilities. These barriers risks reinforcing exclusion when accessibility is treated as an afterthought. **NewWorkTech aims to explore how technology can improve the employment-related skills and opportunities of persons with disabilities, as well as how technologies currently used to overcome functional limitations can enhance the work-related capacities of the wider population.**

The project is based on three parts (as illustrated in Image 1):

1. Studying and mapping out the current workplace use of technologies to complement human skills and abilities, which serves to yield data and evidence of creative and smart use of technologies.
2. Carrying out theoretical work to develop and validate new theory on how people learn to use technology, and on the implications of distributed cognition and agency.
3. Putting into practice the outcomes of the empirical analyses and the theoretical work by establishing policy recommendations and ethical guidelines for the implementation and innovation of assistive technologies at the workplace, and by developing new solutions for the optimal use of technical systems. The project will develop innovative ways to use technologies and build new technological solutions that are empirically and theoretically grounded on human-technology interactions.

Figure 2. *The flow from empirical to theoretical to applied work in the NewWorkTech project.*



Source: NewWorkTech Consortium. (2024). NewWorkTech Project Application (Grant Agreement No. 101177176). European Commission.

Alternative text: Flowchart illustrating progression from empirical work focused on mapping and understanding practices, through theoretical work involving conceptual innovation, to applied work where theory is put into practice, ultimately enhancing human capacity. Key components include labelled boxes with arrows indicating direction, color-coded elements in blue highlighting stages from restriction to resource and final enhancement.

The project takes place between 1 December 2024 and 30 November 2027, thus, this Policy Brief builds on the findings and experiences gathered from key completed deliverables up until March 2026, namely:

- The project's **Co-creation Framework:** provides a co-creation framework that includes methodological guidelines and the steps to follow to develop accessible and inclusive technologies for supporting people with disabilities in work environments.
- A **Report on existing research and revision of key concepts:** it explores theoretical and methodological approaches to human–technology interaction, with a particular emphasis on how technology is conceptualised across disciplines.
- An **Office Work Dataset** **and a** **Manual work Dataset:** the first of two datasets aiming to explore white-collar office work and manual or blue-collar work, examining real-world work practices of persons with disabilities. By combining these datasets, the project aims to identify how technologies and workplace practices interact to either enable or hinder accessibility.

1.2. Key research challenges

So far, the project faces several methodological and conceptual challenges.

1. **Capturing real workplace practices, especially of people with non-disclosed disabilities at work.**

Workplace accessibility depends on complex interactions between people, technologies, and organisational structures. The project therefore uses video ethnography, interviews, and observational fieldwork to document real work activities in situ.

The research identifies major challenges in using video ethnography with neurodivergent office workers. Many employees with ADHD and autistic employees choose not to disclose their neurodivergence at work due to fears of discrimination, making filmed observation ethically problematic. Consent forms would reveal their condition to colleagues, creating risks and discomfort. As a result, only individuals who are already publicly open about being

neurodivergent, such as mentors, activists, or podcast creators, usually agree to be filmed. Those who do participate typically work in supportive environments with leaders who take responsibility for creating flexible structures. Because of these dynamics, video ethnography risks capturing only the experiences of neurodivergent people who feel safe from discrimination and are already well-supported at work. This may skew findings and exclude the challenges faced by those who hide their neurodivergence to avoid stigma. For individuals who want to contribute their work experiences and technology use without exposure, interviews are a more ethical and inclusive alternative to video-based methods.

2. **Diversity of work contexts may lead to access issues, and ensuring meaningful research for all kinds of work contexts.**

Research spans multiple countries and sectors and includes participants with visual impairments, mobility disabilities, neurodivergence, intellectual or developmental disabilities. These participants work in highly diverse environments, ranging from offices and remote work settings to cafés, warehouses, cultural institutions, and healthcare facilities.

Partners had to overcome access issues to find participants in such diverse work contexts by utilising their vast organisational and personal networks to support in this endeavour.

An additional challenge will be ensuring that research findings are meaningful to most workplaces, whilst recognising that challenges in each context may vary, especially in the development of policy recommendations,

ethical guidelines, and innovative technological solutions.

3. **Conceptualising human–technology interaction.**

Existing literature often treats technology as either purely technical infrastructure or assistive tools (New Work Tech, 2025c). The NewWorkTech project addresses this gap by drawing on distributed cognition and socio-technical systems theories, which conceptualise cognition and work as distributed across people, technologies, and environments.

Therefore, NewWorkTech defines technology as a socio-technical phenomenon (Hutchins, 2013). Technology is embedded in practices, environments, and organisational systems, is something that mediates human action, perception, and experience, rather than merely supporting tasks, and is part of distributed systems of cognition and work, involving people, artefacts, norms, and institutions (Noë, 2015; Verbeek & Crease, 2005). The project takes the following perspective: humans shape technologies through design, use, and adaptation and, in turn, technologies shape how work is done, how abilities are recognised, and who can participate.

4. **Translating research insights into policy and design guidance.**

A central challenge lies in transforming empirical research findings into policy and design guidance that is both actionable and genuinely impactful for people with disabilities. Achieving this requires sustained interdisciplinary collaboration, bringing together researchers, technology developers, policy experts, disability organisations, and other stakeholders who each hold essential forms of expertise.

Within the NewWorkTech project, this challenge is amplified by the broad consortium of organisations involved. While this diversity strengthens the project's capacity for dissemination, it also requires careful coordination to ensure that insights move seamlessly from research into real-world policy conversations and design practices.

The project's co-creation framework, and its commitment to the principle of *"nothing about us without us"*, provides a foundation for addressing this challenge. However, it also sets a high bar: actionable insights must

not only reflect academic analysis but must also meaningfully incorporate lived experience. Ensuring that people with disabilities directly shape the project's outputs is essential, yet requires deliberate structures, processes, and relationships that support authentic participation.

5. **Ensuring accessible participation for practitioners and participants in the project's research through an 'enabling collaborative ecosystem'.**

A key challenge is ensuring that all practitioners and participants can genuinely and effectively take part in the project's research activities. To achieve an enabling collaborative ecosystem, researchers must adopt accessible, inclusive methods that allow non-academic partners (organisations, practitioners and participants) to meaningfully contribute. This includes ensuring that methods for collaborative analysis are accessible. For example, when using visual methods, text alternatives must be designed, and transcriptions readable with a screen reader must be provided.

Another part of this challenge lies in guiding non-academic stakeholders so they clearly understand how they can participate and what their contributions can influence. Workshops, in particular, require careful structure, clear agendas, aligned expectations, and openness to feedback that may reshape the collaborative methods used. Crucially, these workshops must be built on the existing knowledge of non-academic partners, rather than defaulting to academic frameworks alone. Researchers therefore face the challenge of first learning from these partners before designing any process meant to engage them.

This challenge extends into upcoming project deliverables also be essential in upcoming project deliverables: For example, when brainstorming how smart glasses can be used in the workplace, it will essential for researchers to investigate first with practitioners how these technologies are used and what are their limitations. To gather practitioner's perspectives depends on providing appropriate guidance, inclusive processes and fully accessible participation methods.

1.3. Links to EU missions and policy priorities

EU missions and Policy Priorities	NewWorkTech's contribution
The **European Pillar of Social Rights** (EPSR) (European Commission, n.d.), proclaimed in 2017, sets out 20 key principles to guide EU policy towards a strong social Europe. To implement the EPSR, in 2021, the European Commission published the European Pillar of Social Rights Action Plan (EPSR AP) (European Commission, 2020). Since 2025, the European Commission has gathered input from stakeholders to draft a new EPSR AP. Although it was originally expected by the end of 2025, it has been delayed without a clear publication date.	NewWorkTech's empirical, theoretical and applied work can **contribute to upcoming actions in the new EPSR AP** linked EPSR Principles 3, on equal opportunities in employment, social protection, education and access to goods and services; 5, on secure and adaptable employment; and 17, on the inclusion of persons with disabilities, and their right to income support, services to participate in the labour market and society, and an adapted work environment.
The **European Disability Strategy 2021–2030** (European Commission, 2021a), aims to support the implementation of the United Nations Convention on the Rights of Persons with Disabilities, of which the EU and all its Member States are signatory parties. One of the Disability Strategy's flagship initiatives is the Disability Employment Package, to improve the employment opportunities of persons with disabilities. By 2025, the European Commission delivered (European Commission, 2021b) most of the Strategy's announced actions. In 2025, the European Commission began gathering input from stakeholders to draft a set of new actions until 2030. The Strategy's new actions are expected by the second quarter of 2026. Actors such as the European Parliament (2025) and the European Economic and Social Committee (2025) have called for upcoming initiatives of the strategy such as legislation guaranteeing the availability and affordability of assistive technologies for persons with disabilities in the EU Single Market, and for legislation regulating the use of algorithms for managing, monitoring and recruiting workers that would address the risks of discrimination of persons with disabilities.	NewWorkTech's empirical and theoretical findings, and technological developments aim to feed into any new relevant actions of the EU Disability Strategy's **Disability Employment Package**, particularly on **assistive technologies** and **algorithmic management** of workers. It also aims to contribute to the **Quality Jobs Act,** offering its perspective on human-technology interactions and solutions maximising the benefits for workers.
The **Quality Jobs Roadmap** (European Commission, 2025)**,** which outlines initiatives to ensure quality jobs in the European Union, includes the possibility of developing measures not covered by current rules (i.e. the AI Act and the GDPR Rules) to regulate Algorithmic Management at work in the EU. As announced in the European Commission's 2026 work programme , the Commission will propose a Quality Jobs Act in 2026, to update EU rules protecting workers while supporting productivity and competitiveness.	
The **EU Digital Compass** (European Commission, 2021c) is a	The innovative technological solutions developed in

strategy laying out the vision for a successful digital transformation of the European Union by 2030. The EU Digital Decade Policy Programme 2030, aims to guide Europe's digital transformation by setting up an annual cycle of cooperation between the European Commission and EU countries to achieve concrete targets and objectives for 2030. One of such targets is for 80% of adults using tech for everyday tasks by 2030.	the **NewWorkTech project will contribute to this target**, by facilitating the use of technologies at work both for persons with disabilities and the broader population.
The **EU AI Act (Regulation (EU) 2024/1689)** aims to promote innovation while ensuring high levels of health, safety, and fundamental rights protection by classifying AI systems into different risk categories, including prohibited, high-risk, and those subject to transparency obligations. This Act foresees the development of voluntary codes of conduct for non-high risk AI systems that will address, among others, accessibility and the impact of AI systems on vulnerable groups, including persons with disabilities.	NewWorkTech's findings would highly **enrich the creation of such codes of conduct**, with empirical and theoretical evidence on the best ways in which AI can support workers with disabilities.
The **European Accessibility Act (Directive (EU) 2019/882)**, sets harmonised accessibility requirements for products and services (e.g. computers, smartphones, ATMs, ticketing and check-in machines, smartphones, TV equipment).	NewWorkTech will **explore and integrate the latest advancements in multisensory interaction technologies**, including haptics, audio, eye-tracking, and extended reality, providing a fresh perspective on how these technologies can enhance workplace accessibility and efficiency for people with disabilities. This area of work of the project aligns with the European Accessibility Act, **going further by suggesting practical applications and integration strategies in various work environments.**

1.4 Contribution to the funded EU research topic

NewWorkTech receives funding under **Horizon Europe 2.2 - Culture, Creativity and Inclusive Society programme**. The project brings together expertise in social sciences, humanities, and engineering, all working for a clear common goal: an equitable and efficient world of work through responsible research and innovation.

The project contributes to the Horizon Europe research topic by:

- Producing empirical datasets on technology use in both knowledge work and manual work contexts.
- Developing theoretical frameworks linking technology, cognition, and disability.
- Generating design and policy recommendations for accessible workplaces.
- Implementing participatory co-creation approaches involving people with disabilities directly in research and technology design processes. This participatory approach reflects the principle "nothing about us without us," ensuring that research outcomes are grounded in lived experiences of workers with disabilities.
- Publishing academic research linked to the project, on topics such as accessibility in organisational practices; employment; experience technologies and intermedialities; experience technologies and user technologies; distributed cognition, perception and agency.

2. Evidence and analysis

2.1 Key research findings

The findings of the research conducted on the Office Work Dataset (NewWorkTech, 2025b) and the Manual Work Dataset (NewWorkTech, 2026), as well as the outcomes of the Report on Existing Research and Revision of Key Concepts (NewWorkTech, 2025c), and the Co-creation framework can be found below (NewWorkTech, 2025a).

1. *People with disabilities are innovators in technology use.*

Across both office and manual work environments (NewWorkTech, 2025b; NewWorkTech, 2026), participants frequently adapt technologies creatively to perform tasks and overcome accessibility barriers. Tools observed in the datasets include screen readers and AI-based interfaces, barcode scanners and handheld devices, digital checklists and workboards, communication apps and messaging platforms, and customised physical workplace adaptations. For instance, large language models and computer vision technologies offer valuable support for people who need image descriptions or assistance with writing due to limited dexterity or paralysis.

These practices demonstrate that accessibility innovations often originate from the everyday problem-solving strategies of workers themselves.

2. *Technology is shaped by everyday practices, environments and organisational systems.*

Rather than treating technology as a neutral device, the Report on Existing Research and Revision of Key Concepts (NewWorkTech, 2025c) describes it as a relational and contextual phenomenon embedded in everyday practices, environments, and organisational systems. This perspective underscores how inclusive workplace technologies function across multiple levels, influencing individual interactions alongside organisational and societal structures.

3. *Accessibility as a collective responsibility.*

Workplace accessibility is shaped not only by technology design but also by broader socio-technical systems, such

as organisational structures, physical environments, workplace culture and human assistance and training. This aligns with the theoretical framework of distributed cognition, which highlights that work processes are distributed across socio-technical systems (NewWorkTech, 2025c).

For example, in manual work contexts (NewWorkTech, 2026), job coaches, supervisors, and colleagues often play a critical role in facilitating participation during training and daily tasks. In office settings (NewWorkTech, 2025b) people with disabilities may have the skills and technology to accomplish their tasks, but compatibility issues or a lack of organisational knowledge on assistive technology can derive in a person's inability to work. For example, blind and low vision people relying on Job Access With Speech (JAWS)[1] can experience difficulties to do their work if their workplace does not ensure that JAWS works correctly and is compatible with other technologies used on the job. Cases from Denmark gathered in preliminary research results from the University of Copenhagen (Carreras et al. 2025; Carreras, 2026; Rudaz et al. 2026) show that in municipal organisations, security guidelines for software can affect the usability and workings of JAWS. This impacts the wellbeing of blind employees who may not be able to work for weeks or even months. This situation can lead to people losing their jobs or job opportunities. This is not only an issue affecting blind people: at national level, a key reason why people with disabilities are underrepresented in the labour market is that organisations do not have the necessary knowledge

[1] *Screen-reader software designed for blind or visually impaired users, allowing them to independently operate a computer. It converts on-screen text, menus, and icons into speech or Braille output.*

to support the use and maintenance of assistive technologies and ensure that the needs of people with disabilities are met in the workplace.

In the Danish employment system, reports (Sammenslutning af Unge med Handicap, Dansk Handicap Forbund, & Videnscenter om Handicap, 2024) underline shortcomings in municipal job centre's knowledge and competence regarding the provision of support for persons with disabilities. In particular, job centres do not adequately capture relevant needs of people with disabilities, including unfocused and unbalanced approaches, insufficient knowledge about workplace realities, and a lack of curiosity and ability to assess needs.

It is also noted (Sammenslutning af Unge med Handicap, Dansk Handicap Forbund, & Videnscenter om Handicap, 2024) how, under the Danish system, persons with disabilities are expected to be experts on their own disability and the available compensatory schemes. This places an important burden on them, as they must constantly navigate a complex labyrinth of rules, procedures, and stakeholders to be able to receive the support they need to perform their work.

Ultimately, accessibility must be understood as a shared responsibility, not an individual responsibility assigned to persons with disabilities. When support systems rely on people with disabilities to navigate complex rules, contact multiple stakeholders, or ensure the proper functioning of technology on their own, they reproduce inequities rather than remove them. In line with the principles of distributed cognition, responsibility should be distributed across the socio-technical network (organisations, job centres, technology providers, colleagues, and policymakers) through clear communication channels and coordinated processes. By putting in place mechanisms that simplify access to assistive technologies, accommodations, and support, workplaces and public systems can ensure that accessibility is embedded in their operations rather than dependent on individual effort.

4. *Human assistance and digital tools often operate together.*

Fieldwork observations (NewWorkTech, 2025b; NewWorkTech 2026) reveal that workers frequently rely on combinations of:

- Human assistance (colleagues, supervisors, job coaches)
- Digital tools (checklists, mobile apps, scanners)
- Physical adaptations (wheelchairs, accessible infrastructure)

This hybrid system of support allows workers to perform tasks effectively even when technologies alone are insufficient.

Research from Denmark (Rudaz et al. 2026) shows that, when observing blind people's uses of language models[2] and computer vision[3], sighted assistance (people) are far more effective in providing support as they mobilise blind people's resources to touch, feel and navigate the world (Carreras et al. forthcoming). For people who rely on round-the-clock assistance it is crucial that in-person support is available to maintain and repair technology over time. Even if technology is accessible, there are still moments where technology fails or breaks due to updates or the material qualities of the technology (Carreras, 2026). So far, state of the art technologies such as Meta AI, ChatGPT or Gemini, can provide useful image descriptions for low-risk tasks. Yet, the usefulness of such descriptions varies due to errors and misleading information. In cases where such technologies are used in the navigation of urban areas, or the inspection of objects, inaccuracy and misleading information may have life-threatening impacts, such as providing wrong information at crossings. These are some of the examples the team

[2] *Language models are artificial intelligence (AI) systems designed to understand and generate human language. Examples of language models include Meta AI, ChatGPT, Gemini and Copilot. These systems can answer questions, summarise information, generate descriptions, support writing or reading tasks and provide conversational assistance.*

[3] *Computer vision refers to AI systems that analyse and interpret images or video. These systems can recognise objects, texts or scenes, describe a picture out loud, identify people or places in an image and help users understand visual surroundings.*

at University of Copenhagen have observed in preliminary data analysis and will write about in further articles and reports. Their findings echo recent scholarship in human-computer interaction, where the verification of errors has become part and parcel of using automated image descriptions, posing important risks for over-reliance, when users do not have the resources or assistance to verify the output of these technologies (Alharbi et al. 2024; Gonzalez Penuela et al. 2026; Williams, 2025).

Although human assistance proves essential to persons with disabilities in the workplace, the Office Work Dataset (NewWorkTech, 2025b) notes how it may sometimes be inconsistently available or poorly coordinated.

5. *Workplace adaptation is critical for inclusion.*

Preliminary project findings show that successful employment often depends on the alignment between worker's access needs, workplace design, and task structures (Carreras, 2026).

In several cases documented in the Manual Work Dataset (NewWorkTech, 2026), employees exceeded expected performance levels when the workplace environment and tasks were adapted to their needs.

6. *Informal accessibility practices are widespread, and lead to tailored person-centred support*

Many accessibility solutions arise informally through collaboration among workers and colleagues, reflecting how tailored support can also develop organically and informally. Examples include shared task lists, peer support during training, flexible task allocation and real-time communication with supervisors.
These practices illustrate how accessibility can be produced collectively through everyday work interactions.

7. *Productivity norms can conflict with inclusion.*

As described in the Office Work Dataset (NewWorkTech, 2025b), workplaces often prioritise speed and efficiency, which can create tension between productivity expectations and accessibility requirements. Workers with disabilities may experience pressure to conform to dominant performance norms even when technologies or workflows are not fully accessible.

8. *Technology barriers can hinder the inclusion of persons with disabilities*

The Office Work Dataset (NewWorkTech, 2025b) underlines some technology barriers experienced by persons with disabilities at work, notably software updates breaking accessibility, the incompatibility between hardware and software, and inaccessible mainstream tools.

Preliminary research findings from Denmark by the University of Copenhagen (Carreras et al. 2025) highlight several accessibility challenges for people who need image descriptions or assistance with writing, including errors in generated content, limited verification strategies, and financial barriers linked to paid AI services. In some cases, these tools are also redundant (e.g. screen readers like JAWS already provide automated image descriptions).

More significantly, many access barriers stem from legacy workplace software that is inaccessible or designed primarily for sighted users, contradicting established web accessibility standards. Blind workers often have to create workarounds when required tools rely heavily on visual interaction (Carreras, 2026). Denmark's system of disability subsidies (see Danish Act on Compensation for Persons with Disabilities in Employment, Lovbekendtgørelse nr. 108 af 29. januar 2020), such as personal assistance funded by municipalities, helps compensate when software is inaccessible (Carreras et al., 2025), but such support is not universally available across the EU. This highlights how in-person support remains essential, and systemic accessibility issues in workplace tools continue to impede equal participation.

9. *A fear of lack of data privacy and security causes persons with disabilities to refrain from extensively using emerging technologies.*

With regards to the use of technologies such as computer vision in Meta AI glasses and other tools based on Language Models, it is crucial that such technologies are evaluated for risks of privacy and data misuse. In many workplaces, data handled by professionals with disabilities is sensitive or confidential, and such technologies do not have the privacy settings to handle such data. This can be a reason for people to refrain from using automated technology. In other cases, people with disabilities trade off privacy for access, making their work practice less private and confidential.

10. *Factors external to the workplace, such as commuting can impact the work of persons with disabilities.*

The Office Work Dataset (NewWorkTech, 2025b) reflected how some persons with disabilities experienced commuting as exhausting, time-consuming, and energy-draining. This reinforces the importance of remote work.

11. *Participatory design significantly improves accessibility outcomes*

Research on co-creation methods (NewWorkTech, 2025a) shows that technologies designed with direct involvement of users with disabilities are more effective and usable than solutions developed without user participation. Participatory approaches also increase awareness among designers and organisations regarding accessibility barriers.

Ethical and accessible participation standards strengthen inclusiveness and alignment with EU fundamental rights. However, co-creation processes face several challenges: Ensuring balanced participation remains critical, as group dynamics may favour more vocal stakeholders; Methods and materials must be adapted to diverse disability types and cognitive abilities, requiring flexibility and specialised facilitation; Co-creation is also time- and resource-intensive, demanding adequate funding, skills, and organisational capacity.

Despite this, accommodating diverse needs, and managing resource demands, co-creation enables user-centred, evidence-based policy development and supports the formulation of scalable and actionable policy outcomes.

12. *Persons with different types of disabilities experience distinct barriers and benefit from personalised forms of assistive technology and support at work*

TAUCHI Research Centre, part of Tampere University, carried out a survey amongst 168 persons with disabilities in Finland, looking into 'how people with disabilities and various functional limitations experience working life and what kind of challenges they face, produced the following preliminary results[4]:

Type of disability	Findings
Neurodiversity	Challenges include sensory overload, social demands, unclear instructions and burnout. Supports include quiet environments, clear written guidance and flexible work.
Visual impairments	Major issues relate to inaccessible digital tools, poor physical orientation support, lighting challenges, and dependence on reliable assistive technologies.
Hearing impairments	Key concerns include noisy environments, inconsistent interpretation services and communication barriers.
Mobility impairments	Issues include inaccessible buildings, travel difficulties, and physical fatigue.

[4] *Official results will be published in 2026*

Chronic illness	Unpredictable symptoms, fatigue, rigid schedules, and a lack of understanding from employers are prevalent.
Intellectual disabilities	Clear guidance, structured tasks, and job coaching.
Multiple disabilities	Persons with multiple disabilities experienced a larger number of barriers, especially when digital, sensory and physical systems interact poorly.

In addition to these findings, it is important to note the strong convergence of results across different research methods and national contexts. NewWorkTech has applied different research methods across several countries, from co-creation events to ethnographic research (NewWorkTech, 2025b; NewWorkTech, 2026), and the present survey confirms similar patterns in the challenges faced by people with disabilities in employment.

Across these studies, common cross-cutting issues emerged, including environmental barriers (e.g., noise or lighting), physical accessibility constraints, the importance of personalised support and assistive technologies for workers with disabilities, and the influence of coworkers' and supervisors' attitudes. The fact that these findings appear consistently across diverse methodologies and geographic contexts suggests that these challenges are not isolated or context-specific but represent broader structural issues in workplace accessibility. This convergence strengthens the validity of the results and supports a shift toward needs-based solutions that address shared accessibility barriers across disability groups.

2.2 NewWorkTech's research innovation potential

Project partners are exploring ways to involve participants in the analysis of data, by making data sessions and co-design activities that meet their access needs for e.g. plain language, sequential information, visual aids, and sign language. More research should explore how disability expertise and web accessibility can reformulate research methods as multimodal and multisensory.

2.3 NewWorkTech's contribution to the state of the art

So far, NewWorkTech's deliverables advance beyond the state of the art by conducting **participatory, on-site ethnographic research** to capture fine-grained workplace realities and interaction practices. The project provides a deep understanding on persons with disabilities' current uses of technologies in the workplace, and on the benefits and challenges of emergent and more mundane everyday technology.

Upcoming deliverables will continue the project's contribution to the state of the art by:

1. **Delivering a new user experience (UX) evaluation method** that progresses beyond the established methods of empirical work employed in the project. The method will be applicable across the whole range of our case studies in which we collect and compare materials based on both human and machine enhanced interactional processes in manifold media environments making use of diverse technologies. Across the project, with the launching of the revised concept of technology for practical purposes, the new evaluation method will be tested and made ready for employment in a rich variety of industrial, commercial, and academic contexts.
2. **Extending ethical leadership** in human-technology interaction by not only analysing risk, but also issuing concrete mitigation strategies and actionable guidance to ensure ethically beneficial outcomes.
3. **Producing forward-looking policy recommendations** that integrate cutting-edge multisensory interaction (haptics, audio, eye-tracking, XR) to enhance accessibility and efficiency, operationalise AI-powered assistive technologies in line with (and beyond) current European frameworks, and contribute to EU AI ethics and employment guidance.

3. Policy recommendations and implications

3.1 Policy Recommendations

For employers:

- **When possible, offer the option of remote and hybrid work:** it is widely beneficial across disability groups, reducing energy demands and commuting barriers
- **Enable flexible working arrangements:** Flexible hours and task organisation support productivity and well-being of workers with disabilities.
- **Ensure the accessibility of work infrastructures**: Screen readers, braille displays, speech-to-text, adapted desks, assistive software, and physical accessibility.
- **Provide human support** such as personal assistants, job coaches, mentors and supportive colleagues.
- **Raise awareness of disability and accessibility:** Awareness and competence at organisational level significantly improve inclusion.
- **Ensure leaders and managers receive specialised training** to understand the use of assistive technology and how to support employees with disabilities by creating relationships of trust.
- **Use co-creation methods** to develop organisational innovation processes in collaboration with workers with disabilities.

For policymakers:

- **Ensure the co-creation of policy with persons with disabilities**. The project demonstrates that early and continuous involvement of people with disabilities across all stages of the policy is essential to ensure relevance and legitimacy.
- **Strengthen Monitoring of Workplace Digital Infrastructure.** The EU should establish mechanisms to assess and monitor workplace digital systems (including authoring tools, journal systems, holiday registration platforms, coding environments, and client-communication systems) to ensure full compliance with Web Accessibility Directive (Directive (EU) 2016/2102) and its harmonised technical standard (European Telecommunications Standards Institute, 2021). This monitoring should extend beyond entities typically governed by accessibility directives, applying equally to companies, NGOs, public organisations and diverse workplace environments.
- **Align Procurement Processes with Accessibility Requirements**. Public and private organisations should be supported in adopting accessibility-first procurement policies. This includes requiring that newly purchased software and workplace systems (from coffee machines to security systems and building infrastructures) meet established accessibility standards and universal design and ensuring that these technologies are tested and validated by users with disabilities before adoption. Such procurement reforms would reduce reliance on inaccessible legacy systems and foster an EU-wide culture of inclusive digital infrastructure.
- **Invest in Education and Awareness on Accessibility**. Ensuring digital accessibility cannot be delegated to automated tools alone. The EU should invest in educational and financial resources for organisations to train employees without disabilities on the importance of accessibility, and awareness programmes that explain why accessibility is a shared responsibility rather than a task left to workers with disabilities. This investment would help counter the widespread lack of knowledge that currently leads to inaccessible everyday tools such as presentation slides, PDFs, and other workplace materials.
- **Integrate Accessibility and Universal Design Training in Higher Education.** The EU should promote and fund university-level programmes that embed web accessibility and universal design into curricula across

disciplines. Future professionals (whether in IT, communication, design, social sciences, administration, or business) should be equipped with foundational skills to create accessible digital content, produce accessible PDFs and slides, integrate universal design principles into their practice.

- **Reduce the Extra Workload Placed on Employees with Disabilities.** Workers with disabilities are often highly digitally proficient, yet they frequently compensate for the inaccessibility of tools created or used by colleagues who lack accessibility training. This results in increased workload, with workers with disabilities spending additional hours correcting accessibility issues, and emotional and physical strain, undermining work-life balance. EU-level policy should aim to eliminate these inequities by ensuring that accessibility knowledge is distributed across the workforce, not concentrated among employees with disabilities.

3.2 Future scenarios

Scenario 1: Inclusive digital transformation

If employers and policymakers fully implement the recommended measures, Europe could move toward a coordinated, accessibility-driven digital transformation. Accessibility would become a standard expectation, not an exception, embedded in everyday work practices, organisational culture, and digital infrastructure.

A labour market with higher participation and reduced inequalities: With remote and hybrid work options widely available and flexible working arrangements established, workers with disabilities would gain access to many more employment opportunities. Assistive technologies (screen readers, braille displays, captioning tools, adapted workstations) and human support (job coaches, personal assistants, trained managers) would ensure that employees can fully perform and develop within their roles. As a result, employment gaps between workers with disabilities and without disabilities would narrow significantly.

Digitally inclusive innovation ecosystems: Consistent accessibility-first procurement would ensure that all newly acquired workplace technologies, from software to building infrastructure, meet accessibility standards and are tested with users with disabilities. Employers would co-create innovation processes with workers with disabilities, leading to technologies that better fit diverse real-world workflows. Accessibility knowledge is shared across the workforce, rather than concentrated among employees with disabilities.

Better leadership, culture, and institutional coherence: Managers receive specialised training on disability, accessibility and assistive technology. This would lead to work environments where employees feel supported and understood. Awareness programmes would help shift organisational cultures away from ad-hoc accommodations toward collective responsibility. Meanwhile, policymakers would co-create legislation with persons with disabilities and ensure that EU-level monitoring assesses the accessibility of digital systems used in all workplaces, not only in the public sector.

A more innovative and resilient digital economy: By promoting accessibility and universal design training in higher education, Europe would foster a new generation of professionals who create accessible digital tools by default. This would result in more innovative and competitive workplace technologies, a smoother adoption of AI, automation, and digital tools, improved productivity and well-being for all workers, not only workers with disabilities.

Scenario 2: Fragmented accessibility landscape

If recommended employer practices and policy changes are not implemented, Europe risks a fragmented, inconsistent approach to accessibility that limits the potential of digital transformation to reduce inequalities.

Accessibility remains informal and uneven: Without clear organisational frameworks and awareness, accessibility would continue to depend on the goodwill of colleagues, job coaches, or isolated champions. Flexible working arrangements and hybrid work options would remain inconsistent, varying greatly between regions, sectors, and employers. Many workplaces would remain physically or digitally inaccessible due to outdated procurement processes and legacy technologies that cannot support assistive tools.

Increased burden on workers with disabilities: If accessibility knowledge remains scarce, workers with disabilities will continue to absorb the extra workload of compensating for inaccessible documents, tools, or workflows created by others.

Widening labour market inequalities: Without structural change, employment gaps persist. A lack of systematic support (e.g. personal assistants, job coaches, trained managers, accessible infrastructure, or assistive technologies) would limit the ability of workers with disabilities to enter, stay, and progress in the labour market. Remote and hybrid work would remain underutilised as inclusion tools. If digital tools proliferate without accessibility checks, workers with disabilities would be further excluded from work and training opportunities.

Technological innovation that excludes: If policymakers do not strengthen monitoring of workplace digital systems, inaccessible technologies will continue to enter the market unchecked. Employers adopting new systems may risk unintentionally implementing tools that undermine accessibility, reinforcing exclusion. Co-creation with persons with disabilities would remain rare, leading to workplace technologies failing to reflect diverse needs.

3.3 Remaining knowledge gaps

Several areas require further research:

- Long-term impacts of AI on workplace accessibility.
- Economic benefits of inclusive workplace technologies.
- Cross-sector comparisons of accessibility practices.
- Integration of accessibility into emerging digital platforms.
- Studying examples where knowledge sharing supporting accessible workplaces and inclusion happens.

Addressing these gaps will be essential for ensuring that Europe’s digital transformation supports a more inclusive and equitable labour market.

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