CO-CREATION
FRAMEWORK

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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[Co-creation framework]

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1 NewWorkTech project

The NewWorkTech project aims to explore how technology can improve the employment-related skills of individuals with diverse abilities. The primary goal is to transfer this knowledge into practical outcomes: technologically advanced solutions, new theoretical frameworks, ethical issues, policy recommendations, and accessible practical knowledge to the community at large. The project, highlights the potential of such technologies as Artificial Intelligence (AI) for supporting vulnerable groups, also seeks to extend the benefits to the workforce in a wider sense, especially those who may be temporarily functionally limited or those who would like to augment their performance using these technologies. People with disabilities are often pioneers in the innovative use of technology, demonstrating a strong potential to engage with advanced digital tools. It is therefore important to understand how they interact successfully with these technologies. By analysing a variety of real-world use cases, the project will identify key success factors and common obstacles in the use of work-related technologies. Participatory methods and co-creation approaches are central to the project, involving people with disabilities and ensuring their voices are central, according to the principle of "nothing about us without us." The insights will ensure more effective design practices, enhance accessibility, and guide the development of future workplace technologies. Ultimately, the project aims to promote meaningful employment for people with disabilities, reducing inequality and encouraging more innovative and inclusive use of technology for all, not just those with physical or cognitive ability.

2 Introduction

To design accessible and inclusive technologies, it is fundamental to understand the interaction requirements of people with disabilities. Acquiring this knowledge requires a participatory approach that involves end users and the other relevant stakeholders throughout the entire development process, from technology design to implementation and testing. Participatory methods are fundamental to developing effective, usable, and user-centred systems. This guarantees that end users' needs and preferences are included in all stages of the development process.

In recent years, co-creation has emerged as a central paradigm in the development of inclusive technologies, especially in contexts involving people with disabilities. Co-creation, by promoting the active participation of end users, designers, researchers, and stakeholders, ensures that the resulting solutions are not only technically valid but also aligned with the real needs of users.

This deliverable 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. This framework will be applied in co-creation events to gather knowledge on interaction requirements, ultimately contributing to the development of more inclusive and usable digital solutions.

First, co-creation methods will be analysed to identify the most suitable method for the definition of the co-creation framework and its application in our co-creation events. The defined framework will be used to gain insights into the interaction behaviours of individuals with different abilities and translate these into guidelines for the design of new technologies. Insights into these events will help to identify the strengths and limitations of new technologies in supporting people with disabilities, helping to bridge the gap between technology and its users.

The co-creation framework will be implemented through a series of co-creation events. Initial events will take place (on the 23rd and 25th of September and on the 7th and 9th of October2025) in Italy, aimed at acquiring in-depth knowledge of the interaction needs of users with different abilities. Additional events will take place (at month 20 of the project) in Copenhagen to assess and validate the knowledge acquired in Italy. These events will engage a wide range of stakeholders in interactive discussions, including individuals with disabilities, associations, educators, policy makers, and developers, to define more effective, empathetic, and inclusive design strategies. Data collected in all participative events will be used to support the development of guidelines for the definition of new technologies in the workplace.

In detail, Section 3 provides an overview of co-creation methods to involve end users and stakeholders in participatory events. Section 4 defines and describes the co-creation framework that will be applied in different co-creation events. Section 5 describes the implementation of co-creation events in Italy, and Section 6 details the further co-creation events that will take place in Copenhagen. Finally, Section 7 provides a concluding discussion on the activities described in the deliverable.

3 State of the art on co-creation methods for the work environment

Different methodologies have been defined and applied in the scientific literature to facilitate the emergence of real needs of users and to build more effective, empathetic, and shared design solutions.

This section provides an analysis of the state-of-the-art literature and a comparative analysis of the most used methodologies in the co-creation approaches to select the most suitable methodology to define the co-creation framework and to be applied in our events. Table 1 provides an overview of the analysed papers showing the used methods, applications sectors, and use cases.

The analysed literature provides concrete case studies illustrating the effectiveness of participatory design in the development of digital solutions for people with disabilities. Focus groups represent a commonly employed methodology for collecting perceptions, opinions, and suggestions from users in a collective way, allowing new objectives, strategies, and ideas to be identified and developed. Their primary advantage lies in the richness and diversity of perspectives generated through open dialogue. This method was used in different

works in the context of disability and assistive technology. For example, Kerr et al. (2024) used focus groups to design devices for the rehabilitation of people with hemiplegia. It has led to changes in accessibility of existing technologies, including changes to the handles and structure of rehabilitation games. Korving et al. (2022) combined focus groups with brainstorming and questionnaires to gather input on the design of pain warning systems for caregivers who assist the disabled to be able to intervene appropriately. Huijnen et al. (2017) used co-creation sessions and focus groups to understand how robots can be concretely implemented in current educational and therapeutic interventions for children with autism spectrum disorder (ASD). Fuglerud et al. (2021) instead deepened the potential of online focus groups, highlighting the advantage of geographic inclusiveness and cost reduction, but also the limits in understanding non-verbal signals.

However, focus groups are susceptible to issues related to group dynamics, such as the influence of dominant participants. Moreover, while effective in the initial exploration of needs, they do not facilitate the entire design cycle, from problem framing to iterative testing, as Design Thinking does.

Workshops are perhaps the most structurally comparable method to Design Thinking in terms of engagement and creativity. In the work of Bjørnerås et al. (2024), workshops involved university students with disabilities in an inclusive design process to co-create more inclusive curriculum interventions and practices, generating complex reflections even on conflicting points of view. Wherton et al. (2015) conducted workshops with seniors to design telemedicine solutions, collecting needs related to the customization and adaptability of technologies to meet the changing needs of different users. An interesting approach is the disability simulation described in Raviselvam et al. (2021), where, through a co-creation workshop, participants were exposed to two types of disabilities, generated through simulations that reduced their physical and situational abilities. This was achieved by using tools that simulated a specific physical limitation. In practice, a noise-cancelling device and earphones were used to simulate hearing impairment. Participants were then asked to reflect on the emerging needs and related requirements for supporting technologies. The advantage of this approach is evident, experiencing a limit and the impossibility of performing a vital function in a regular way, it is more truthful to see what tools can be used to overcome this condition of disability. In Duval et al. (2023), workshops were used to collect data on the movement of children with Sensory Motor Disorder (SBMD) in a playful way and co-create interactive games. Data was collected through Cirkus, an open and flexible design application that supports a wide range of games in which children move like animals. While workshops provide immersive and collaborative environments, they often function as isolated events rather than as integral parts of a structured, iterative framework like Design Thinking.

Another co-creation method is the Empathic Design; it includes techniques that simulate physical limitations, such as the use of wheelchairs or limited mobility of a certain part of the body and helps to sensitize designers to the barriers faced by people with disabilities. Some empathic design approaches are illustrated in the paper of Sarmiento-Pelayo (2015), such as experimenting with the use of wheelchairs or devices that limit hearing or vision. This methodology is a powerful tool for raising awareness and can lead to solutions that are more focused on the user's reality. However, simulations, while useful, cannot replace the direct and sustained involvement of disabled people in design processes, due to the risk of misrepresenting long-term and complex experiences. For this reason, Empathic Design is best used as a supplementary tool within a broader participatory framework, rather than a standalone methodology.

Finally, data collection through surveys, interviews, and questionnaires provides valuable insights during the preparatory stages of design. Several research papers mention these methods, used to gather views on specific topics and analyse users' needs. For example, Van der Meer et al. (2018) used surveys to explore well-being and job satisfaction of professionals working with people with intellectual disabilities. In the work of Hatzakis et al. (2024), interviews were instead used in the preliminary co-design phase to collect the views of people with disabilities on accessibility of public transport, involving them in research and innovation on accessible mobility. Ro et al. (2024) used questionnaires and interviews to gather feedback on improving accessibility of assistive technologies.

These cited methods enable a quick and easy way to collect large amounts of data and user feedback but are generally non-interactive and limited in their ability to support iterative ideation, prototyping, and refinement. They provide valuable input but lack the co-creative and transformative potential characteristic of Design Thinking. For our purposes, Design Thinking emerges as the most effective approach compared to other

commonly used methods.

Design Thinking provides a comprehensive and iterative process that begins with empathy with the user and proceeds through design, prototyping, and testing. This method allows for the involvement of disabled people at an early stage, guaranteeing that their needs and preferences are included and ensuring user-centered solutions. This method is based on iterative processes, which include different phases: Empathize, Define, Ideate, Prototype, and Test, allowing for continuous refinement based on user feedback. It is widely used in the design of technologies for the disabled, as it provides a stage in which the problem is investigated and understood, and for which a solution is sought through listening and empathy. For instance, Heitmeier et al. (2023) used Design Thinking in combination with Personas-Scenario to gather qualitative inputs in the need's exploration phase through the collection of relevant insights in the problem definition and solution design process for the identification of requirements. Similarly, De Saille et al. (2022) adopted Designed Thinking with disabled users to design together with them the characteristics of a useful robot. This method demonstrates how the inclusion of users at an early stage enables integration of concrete needs into design from the outset. Design Thinking was also used in the project Designing Together, where students were involved in the design of accessible educational content (Kelestyn and Humphreys, 2025).

In contrast, other widely used methods in co-creation projects offer valuable contributions, yet they lack the holistic, iterative structure of Design Thinking. The Personas-Scenario approach, for example, plays a key role in fostering empathy by constructing fictional characters and a simulation of usage contexts (scenarios) illustrating the daily context in which needs and critical issues emerge. Teleman et al. (2022) used personas and visual scenarios in the co-design of games for children with disabilities, encouraging active and creative involvement by participants. In this case, the personas method was used to create use scenarios, represented by sequences of images. Each scenario has been validated with children without disabilities to make it more authentic and replicable. The project MINDInclusion also used Personas – Scenario for the inclusion of people with intellectual disabilities in public places and society (Almeida et al., 2020). The use of the empathy map has further enhanced the effectiveness of the tool, helping to define the problems that disabled users face when accessing public places. While this method helps visualise user needs and can stimulate problem-solving, it remains more static, typically representing a single snapshot of the user experience rather than evolving along with the design process.

The analysis suggests that participatory approaches are fundamental to the creation of effective, usable, and user-centred systems.

In conclusion, although other methodologies contribute valuable insights and tools to the co-creation landscape, Design Thinking represents the most effective methodological choice for structuring co-creation events aimed at understanding and defining interaction requirements in the development of new accessible technologies.

The following sections will describe how the Design Thinking method will be applied to define the co-creation framework for the NewWorkTech project.

Table 1. Overview of the state of the art of co-creation methods

Reference	Used methods	Application sectors	Use cases
Kelestyn and Humphreys, 2025	Design Thinking Warwick framework	Inclusive education	Co-designing accessible educational content with students
Kerr et al., 2024	Long-term participatory design process using the Technology Enabled Reflection and Growth (TERG) approach Focus Groups	Accessible rehabilitation technology for people affected by an ictus	Case Study 1: Design of a low-cost hand device for people with hemiplegia. Case study 2: Design of a rehabilitation dosage and intensity monitoring system
Bjørnerås et al., 2024	PAR (Participatory Action Research)	Inclusive education	Co-creation of interventions and recommendations for

	Co-creation workshops		more inclusive higher education practices and curriculum design
Thorsen et al., 2024	Collaborative prototyping Standard clinical questionnaires IPPA and QUEST 2.0 to assess device functionality and satisfaction	People with cerebral palsy	Co-creating assistive devices using 3D printing technologies (e.g. a custom spoon handle)
Hatzakis et al., 2024	Co-creation workshop Interviews Survey Brainstorming	Accessible mobility for people with disabilities	Accessibility of public transport
Ro et al., 2024	Participatory Design Interviews Questionnaire	People with disabilities	Evaluate the usability of an open-source platform for assistive devices
De Meulder et al., 2024	Co-creation workshops Focus groups Surveys (online and in-person)	Sign language technology development	Develop mobile translation applications between signed and spoken languages
Duval et al., 2023	Participatory workshops with children using Cirkus	Children with Sensory-Based Motor Disorder (SBMD)	Developing playful technology that can support healthy physical exercises for children with disabilities
Heitmeier et al. 2023	Design Thinking Personas Interviews Surveys	Learning for students with disabilities	Development of strategies and materials to enhance digital learning accessibility in higher education
Teleman et al., 2022	Qualitative Interviews Image-based workshops Persona modelling	Children with disabilities	Design of games for health care and social inclusion of children with disabilities
de Saille et al., 2022	Design Thinking Workshops using Community Philosophy LEGO Serious Play	Disabled people	Analysis of methodologies for involving people with disabilities in the early design of care robots

Korving et al., 2022	Brainstorm session Multiple questionnaires Focus groups	People with severe or profound intellectual disabilities	Design of a user interface visualizing pain experiences for a signalling system intended for caregivers
Raviselvam et al., 2021	Co-creation workshop Two forms of simulations: direct and situational physical impairments	Hearing impairment	Understand the impact of simulated situational impairments in generating inclusive design solutions
Fuglerud et al., 2021	Online Focus groups Co-Creation Workshops Personas and scenarios	People with disabilities	Review of methods and techniques for universal and inclusive design of ICT in remote settings
Almeida et al., 2020	Design Thinking Personas - Scenario	Cognitive accessible tools for people with intellectual disabilities	Web tool offering personalized support for users with cognitive impairments designed within the Mind Inclusion 2.0 project
D'onofrio et al., 2018	Agile co-creation workshops Interviews	Elderly people	Robotics for aging populations
van der Meer et al., 2018	Cross-sectional survey Questionnaire	Professionals working with disabled people	Building well-being and job satisfaction of professionals working with people with intellectual disabilities (PWID)
Alsem et al., 2017	Co-creation workshops Personas Living Lab approach	Assistive technology for elderly people	Elderly people living independently with early dementia or physical limitations
Huijnen et al., 2017	Focus groups Co-creation sessions	Children with autism spectrum disorder (ASD)	Implementation of robots into current education and therapy interventions for children with autism spectrum disorder
Augusto et. al., 2016	UC-IEDP (User-Centric Intelligent Environments Development Process) model Questionnaires Interviews Workshops	People with Down's Syndrome	The project POSEIDON focuses on bringing some of the latest technological advances to increase inclusion in society of people with Down Syndrome
Sarmiento-Pelayo, 2015	User-centred design Empathic design	Participation of people with disabilities	Overview of co-design
Wherton et al., 2015	Co-design workshops with stakeholders	New care solutions for elderly people	Design of technologies and services to enable and

	Vignettes developed from in-depth ethnographic case studies		facilitate the co-production of new care solutions
Ward et al., 2015	Co-creation workshops Living Lab trials Qualitative research (interviews, diaries) Persona development	Assistive technology aging population	Support aging in place for older adults
van Veen et al., 2013	Action Research Approach Community of Practice (CoP) Brainstorming Participatory and dialogical tools (e.g., open space sessions, visualizations, focus groups)	Disability inclusive development	Developing programs to include persons with disabilities

4 The co-creation framework

This section outlines a co-creation framework designed to gather insights into the interaction needs of users with diverse abilities and to evaluate their interaction behaviours when engaging with technology.

The co-creation framework aims to identify both functional and experiential requirements, which will inform the development of guidelines for implementing new technologies. It serves as a collaborative tool that engages users, stakeholders, and designers in active discussions to share various perspectives and information about the specific needs of individuals with different abilities. Additionally, it provides insights into effective interaction elements and contextual recommendations to enhance usability and accessibility.

This framework is intended to enhance understanding of interaction behaviours by outlining user needs and requirements and converting them into practical guidelines for designing new technologies. It aims to identify both the strengths and limitations of these technologies in aiding individuals with disabilities, ultimately bridging the gap between technology and its users.

To accomplish these goals, the framework is developed using the Design Thinking method. Design Thinking is a user-centred, iterative approach that is particularly effective in technology development, as it focuses on human needs, empathy, and iterative problem-solving elements that are essential for creating solutions that enhance people with disabilities or impairments.

By applying this method, the involved people will be able to describe and discuss how new technologies can be used to improve the workplace environments. In particular, the discussions will focus on the use of new technologies such as augmented reality, eye tracking, wearable technologies, personal robotics, and haptics, as well as technologies for multisensory aids and augmented capabilities (e.g., AI-based personal assistants to perform work tasks and help workers, and for remote work settings).

An added value of this approach is the development of empathy between users and the characters that represent their needs. Participants can identify with these characters, as they authentically represent the experiences of people with disabilities in the context of the work environment. This facilitates a more authentic and meaningful design process, fostering deeper engagement and understanding.

This framework is designed to provide an iterative process that emphasizes understanding people's needs, generating innovative ideas, and quickly testing them (see Figure 1).

It is based on reformulating the five phases of design thinking:

1. Empathy: This phase involves deeply understanding the needs and challenges faced by individuals with disabilities. It includes directly engaging with associations representing people with disabilities to gain insights into their challenges and work environments, which helps define interaction scenarios with new technologies in the workplace.

2. Problem Definition: This phase aims to identify user needs that must be addressed. It involves creating realistic interaction scenarios and formulating relevant questions to gather valuable data on the interaction behaviours of people with disabilities in workplace environments.

3. Ideation: This phase focuses on generating and exploring the potential applications of new technologies in interaction scenarios. Through collaborative discussions, participants generate ideas that address questions related to the interaction behaviours of people with disabilities with technologies in workplace environments.

4. Prototyping: This phase is dedicated to the analysis and elaboration of data collected from stakeholders' discussions during the ideation phase.

5. Testing: In this final stage, the knowledge acquired from the answers to the questions related to the interaction behaviours is validated and refined by people with disabilities. This helps refine the technologies and ensures their relevance, effectiveness, and inclusivity.

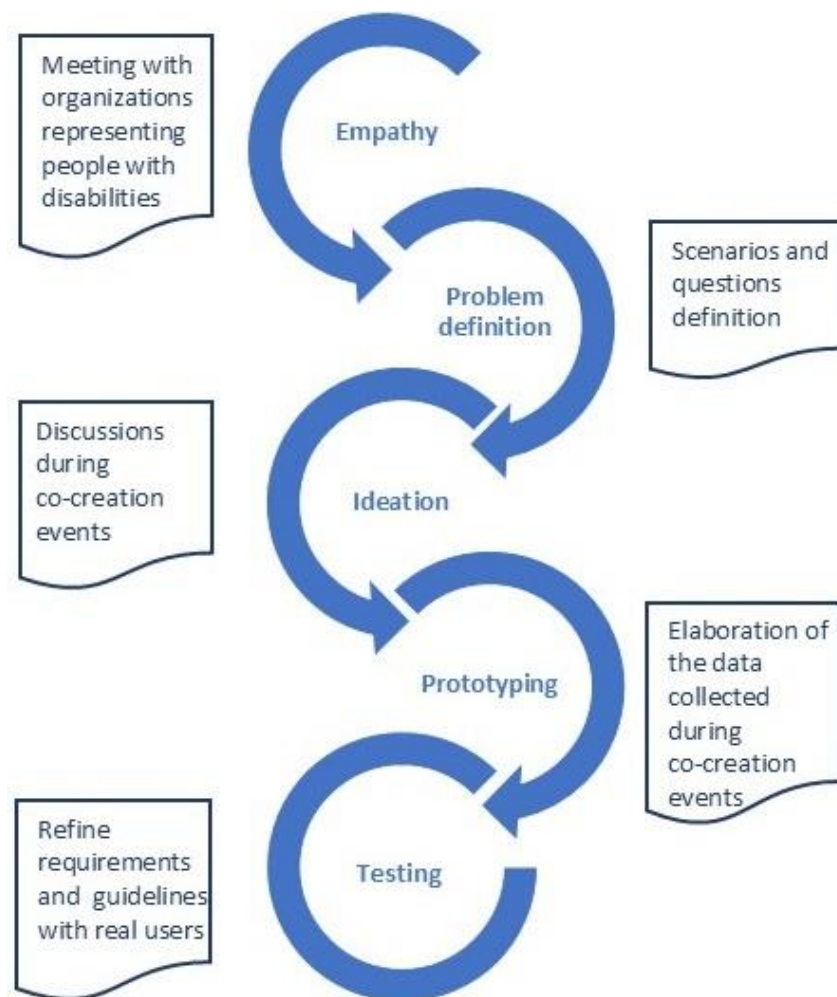The next sections will provide an overview of each phase within the co-creation framework.

Figure 1. Co-creation framework for the NewWorkTech project

4.1 Empathy phase

To create intuitive, human-centred, and effective interactions, the first phase of Design Thinking is the empathize phase.

The primary objective of this phase is to acquire information about the technologies that individuals with disabilities use daily in the workplace. To accomplish this, it is essential to gather insights into how users engage with new technologies by exploring their feelings, routines, barriers, and needs. This understanding will provide a solid foundation for developing design solutions.

To facilitate this process, associations representing people with disabilities are identified and reached out to gather information about real user behaviour in the workplace. Meetings with associations offer essential insights into the types of work that individuals with disabilities engage in. Additionally, the knowledge shared by these associations helps in planning co-creation activities, enabling stakeholders to connect with the issues at hand. These associations, in fact, act as critical intermediaries, providing access to real-life experiences and helping ensure that engagement is ethical, respectful, and inclusive.

4.2 Problem definition phase

The problem definition phase builds upon the understanding gained during the Empathy phase and aims to clearly identify user needs related to their interaction with technology. This phase is essential for establishing clarity when designing interaction processes. The insights gained from the empathize phase are translated into a problem definition that centres on how users interact with technology. It aims to identify specific interaction needs or challenges that require attention.

Starting from discussions during meetings with associations of people with disabilities, this phase aims at identifying existing interaction flows in work environments and pinpointing specific scenarios. Different realistic user scenarios, each reflecting a different disability type and professional context, are developed. These scenarios help visualize challenges and help understand the interaction process, serving as a foundation for further exploration in co-creation activities. In addition, for each one of these scenarios, specific targeted questions are formulated to stimulate active discussions and gather information on users' interaction needs and expectations.

4.3 Ideation phase

The ideation phase connects the earlier stages of empathy and problem definition with the later, more concrete phases of prototyping and testing. This phase aims to understand user behaviour, expectations, and feedback about the interaction with technologies by investigating usability issues as well as validating assumptions about the interaction process. To achieve this purpose, the ideation phase is implemented through co-creation events designed to explore how people with disabilities interact with emerging technologies in the workplace.

During these events, each interaction scenario and related questions defined in the problem definition phase are described in detail to ensure that all participants share a common frame of reference and understanding of its significance. Different stakeholders (people with disabilities, associations representing them, IT experts, policy makers) come together during these co-creation events to collaboratively explore, brainstorm, and prototype innovative ways for users to interact with technology while completing specific tasks in their workplaces. To ensure an inclusive process where every participant has an equal voice, all attendees are encouraged to share their perspectives on the interaction's user requirements with emerging technologies. This will include exploring the contexts in which these needs arise, as well as the tools and modes of interaction that users have with the technologies. These co-creation events prioritize careful planning, inclusive facilitation, and iterative exploration.

4.4 Prototyping phase

The prototyping phase focuses on translating knowledge about how users interact with technologies in the workplace, gathered during the ideation phase, into specific requirements and guidelines. This phase will analyse participants' behaviours, expectations, and feedback regarding their interactions with the proposed technologies shared during co-creation events. This analysis helps to establish the requirements and guidelines needed to develop new technologies that effectively support people with disabilities in the workplace. It also enables valuable insights into participants' ideas and opinions regarding the requirements and needs of individuals with disabilities in terms of interaction within work environments. Understanding their feedback will support the creation of guidelines for designing interaction technologies that are sustainable, user-friendly, and effective in improving task activities in the workplace.

4.5 Testing phase

The insights gained during the ideation phase, along with the requirements identified in the prototyping phase, are evaluated in the testing phase by asking opinions on requirements and design guidelines from real users for critical evaluation and refinement. This phase provides direct, actionable information about the interaction process with technology, enabling to refinement of the guidelines to better align with user needs and expectations. The goal of this phase is to validate how the defined requirements and needs perform in real-world scenarios. Discussions among stakeholders during co-creation events are facilitated by defining specific questions related to the requirements and needs developed in the prototyping phase. Data collected from stakeholders' feedback will help us test the understanding of how emerging technologies can assist individuals with disabilities in completing tasks in work environments. Ultimately, this phase will transform assumptions into insights, guiding teams to design technology that is not only functional but also usable, desirable, and user-centred.

The five phases of the framework, based on the design thinking methodology, will be applied throughout the project in the Italian and Danish contexts.

5 How to apply the co-creation framework in the Italian context

The first four phases of the co-creation framework, Empathy, Problem Definition, Ideation, and Prototyping, will be implemented in the Italian context.

Specifically, the first two phases have already been conducted between June and August 2025.

Different local stakeholders, including people with disabilities, their representative associations, policy makers, and developers, have been mapped out, identified, and engaged to participate in the co-creation events. In particular, the first phase, which focuses on empathy, was carried out by organizing a series of both face-to-face and remote meetings with associations of people with disabilities in Italy. These meetings aimed to gather essential insights for preparing the organization of co-creation events involving various stakeholders. Different bodies were contacted, and some of them were available to participate. The following bodies contributed to the empathy phase and supported the organization of the co-creation events:

- AIPD (Associazione Italiana Persone Down, partner in the NewWorkTech project)
- UICI (Unione Italiana dei Ciechi e degli Ipovedenti)
- S. Alessio - Margherita di Savoia - Azienda di Servizi alla Persona disabile visiva
- Banca d'Italia - Disability Manager
- ANFFASS (Associazione Nazionale di Famiglie e Persone con disabilità intellettive e disturbi del neurosviluppo)
- Séfora SRL Impresa Sociale Anffas

- Santa Lucia Basket Sports Club (Italian wheelchair basketball team)
- Centro Per l'Autonomia e l'Autodeterminazione
- Associazione Paraplegici di Roma e del Lazio
- FISH Lazio (Federazione Italiana per i diritti delle persone con disabilità e famiglie)
- Centro Nazionale Tecnologie Innovative in Sanità Pubblica – TISP. Istituto Superiore di Sanità

These bodies helped contextualize the design challenges and contributed to shaping the structure and content of the co-creation activities, encouraging user participation. The problem definition phase involved meetings with these bodies aimed at exploring the interaction abilities of people with disabilities. The goal was to identify realistic scenarios that aligned with their knowledge of using technology in work environments, facilitating collaborative discussions to better understand the needs of individuals with disabilities.

The problem definition phase has resulted in eight defined interaction scenarios; each associated with targeted questions described below. The questions formulated for each scenario will initiate collaborative discussions during the co-creation events. The defined scenarios will be used during the co-creation events with the aim of identifying the real difficulties that workers with disabilities encounter within work environments and stimulating ideas for inclusive and safe technological solutions.

The scenarios are categorized by type of disability and presented in the following subsections.

5.1 Scenarios related to visual impairment

Scenario 1: Elisa, an employee with visual impairment, and the use of technology in the office.

Context: Elisa is a 37-year-old woman who is severely visually impaired; She works as a secretary at a consulting firm, where her responsibilities include managing documents, coordinating internal communications, and providing administrative support. Additionally, she participates in professional development courses.

Questions:
- Based on your experience and Elisa's type of disability, what difficulties might she encounter when using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Elisa's working experience? What aspects should be enhanced to facilitate interaction with technology?

Scenario 2: Giulio, a blind teacher who uses technology in the classroom.

Context: Giulio is 42 years old and has been blind since birth. He teaches history and philosophy at a secondary school. A passionate educator, he utilizes assistive technology to make his lessons accessible and interactive. Giulio uses a laptop with a screen reader to prepare his lessons, allowing him to interact and conduct teaching activities inclusively. Naturally, he also assesses his students and participates in professional development courses.

Questions:
- Based on your experience and Giulio's type of disability, what difficulties might he encounter in using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Giulio's working experience? What aspects should be enhanced to facilitate interaction with technology?

5.2 Scenarios related to intellectual disabilities

(These scenarios will be simplified during the events by using easy-to-read language, making the text easy to read and understand, and giving some simple practical examples).

To effectively encourage the participation of individuals with Down syndrome in the co-creation process, it is essential to focus on their personal experiences before introducing them to the defined scenarios. This approach is necessary because it can be challenging for them to empathize with others' perspectives. To facilitate this, we began with simple questions that relate to their personal experiences:

- WHAT IS YOUR JOB AND WHICH TECHNOLOGIES DO YOU USE IN YOUR WORK?
- DO YOU ENCOUNTER ANY DIFFICULTIES WHEN USING THESE TECHNOLOGIES?

WHICH TASKS DO YOU FIND EASY TO COMPLETE?**Scenario 3:** Anna with Down syndrome and her office job.

- **TRY TO IMAGINE A WORKPLACE.**
  IN THIS WORKPLACE THERE IS ANNA.
  ANNA WORKS IN AN OFFICE.

- ANNA HELPS THE SECRETARY.

- **WHAT ANNA DOES AT WORK:**

- SHE ORGANIZES DOCUMENTS, ALSO USING THE COMPUTER

- SHE WRITES EMAILS

- SHE WELCOMES PEOPLE WHEN THEY ARRIVE AT THE OFFICE

- SHE PREPARES MATERIALS FOR MEETINGS

- **QUESTIONS**

- In your opinion, what difficulties could Anna face at work? Why?

- In your opinion, can Anna overcome these difficulties with the help of new technologies? (Some examples are provided to participants)

– In your opinion, what could help Anna do her job better?

-

Scenario 4: Marco with Down syndrome, a warehouse worker in a logistics store.

- TRY TO IMAGINE A WORKPLACE.
  IN THIS WORKPLACE THERE IS MARCO.
  MARCO WORKS IN A WAREHOUSE
  FOR A COMPANY THAT DOES LOGISTICS.

  WHAT MARCO DOES AT WORK:

- HE PUTS PRODUCTS ON THE SHELVES

- HE CHECKS THE BAR CODES

HE PREPARES PACKAGES FOR SHIPPING

- MARCO LOVES HIS JOB AND WANTS TO DO IT WELL.
  MARCO LIKES WORKING WITH HIS COLLEAGUES.

- **QUESTIONS**

- In your opinion, what difficulties could Marco face at work? Why?

- In your opinion, can Marco overcome these difficulties with the help of new technologies?

- In your opinion, what could help Marco do his job better?

-

5.3 Scenarios related to physical disabilities

Scenario 5: Luca, an Employee with a motor disability and technology in the office.

Context: Luca is a 35-year-old administrative employee with a physical and motor disability in a large company but remains highly independent thanks to a combination of technological solutions and ergonomic adaptations. Luca is precise, organized, and actively participates in office life. His responsibilities include document management and communication, data analysis, and the use of collaboration tools. He also attends professional development courses.

Questions:
- Based on your experience and the nature of Luca's disability, what difficulties might he encounter when using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Luca's working experience? What aspects should be enhanced to facilitate interaction with technology?

Scenario 6: Sara, a sales assistant in a sporting store with a motor disability.

Context: Sara is 29 years old, has a motor disability, and uses an electric wheelchair. She works as a sales assistant in a large sporting store. Her main tasks include welcoming customers and guiding them through different departments; providing advice on sporting goods based on customer needs; updating stock and checking product availability using a company tablet; and moving between shelves, displays, and demonstration areas.

Questions:
- Based on your experience and Sara's type of disability, what difficulties might she encounter when using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Sara's working experience? What aspects should be enhanced to facilitate interaction with technology?

5.4 Scenarios related to hearing impairment

Scenario 7: Stefania, an employee with a hearing disability who works in an office, interacts with technology.

Context: Stefania is 29 years old and has a hearing impairment. She works as an administrative assistant in a medium-sized company. She relies heavily on accessible digital technologies to perform her job independently and accurately.

Questions:
- Based on your experience with Stefania's type of disability, what difficulties might she encounter when using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Stefania's working experience? What aspects should be enhanced to facilitate interaction with technology?

Scenario 8: Paolo, a woodworker with a hearing disability.

Context: Paolo works in an industrial woodworking workshop. He has a hearing impairment, which means he cannot perceive ambient sounds such as alarms, machine signals, or casual conversations with colleagues. Despite this, he is highly skilled at manual work and handling tools. Paolo's tasks include measuring, cutting, and assembling pieces of wood using equipment such as electric saws, drills, and sanders. Safety is critical: he needs to be aware when machines are on, when hazards are present, and when colleagues are giving instructions.

Questions:
- Based on your experience with Paolo's type of disability, what difficulties might he encounter when using technology at work? Why?
- In your opinion, how could these difficulties be overcome with the help of other innovative technologies?
- In addition to current technologies, which features should devices and/or tools have to improve Paolo's working experience? What aspects should be enhanced to facilitate interaction with technology?

5.5 The implementation of the co-creation events in the Italian context

The Ideation phase will be conducted in September and October 2025 through the organization and implementation of co-creation events designed to foster collaboration among end users, associations, educators, IT experts, and institutional stakeholders. The events will be structured around the eight predefined scenarios and guided by the related questions.

To ensure meaningful participation, a transparent and ethical recruitment process has been implemented. The criteria for selecting participants for these events are as follows:
- Full Disclosure: We provide complete and accurate information about the project, clearly explaining the purpose and functioning of the events.
- No Pressure: We ensure that the purposes and functions of the co-creation events are thoroughly explained to potential participants, allowing them to make an informed decision about their participation.
- Respect for Individuals: Participation is entirely voluntary, and obtaining informed consent is fundamental to our recruitment process.
- Age Requirement: Only individuals aged 18 and older are eligible to participate.
- Gender balance: The recruitment process aims to achieve a gender balance, targeting 50% male and

50% female participants.

The recruitment procedures for participants in the co-creation events included:

- Direct contact: Members of the CNR (Consiglio Nazionale delle Ricerche) project team reached out directly to potential participants through various means, including face-to-face meetings, emails, and phone calls. They focused on engaging different stakeholders and networks, who might be interested in discussing the themes of the co-creation events.
- Indirect contact: The CNR project team disseminated invitations for the co-creation events through social media posts and personal accounts, in collaboration with the different involved bodies.

The recruited individuals will be instructed to register using the EUSurvey form. This module is provided in Italian for the co-creation event in Italy. An English version is attached to this deliverable (see Table 2).

The EUSurvey form includes the informed consent and the links to the information sheet and the privacy notice. The informed consent module outlines the nature and purpose of the co-creation events and associated risks (see Annex 1). The privacy notice describes how personal data is processed in compliance with data protection legislation (see Annex 2). It is mandatory for participants to read the information sheet and the privacy notice and to sign the informed consent. These documents were developed in alignment with the guidelines established by Tampere University, the coordinator of the NewWorkTeck project.

Table 2. EUSurvey form in English

NewWorkTech

From the margins to the masses: Standard practices and innovative uses of technology in augmenting different abilities of people in the world of work

Grant Agreement No. 101177176
HORIZON-CL2-2024-TRANSFORMATIONS-01
Topic HORIZON-CL2-2024-TRANSFORMATIONS-01-11

CO-CREATION EVENTS
September 23rd and 25th, 2025
October 7th and 9th, 2025
Rome (Italy)

Consent for participation in the co-creation event

You are invited to participate in the co-creation event of the NewWorkTech.

The NewWorkTech is funded by the European Union under the HORIZON-CL2-2024-TRANSFORMATIONS-01 call, specifically Topic HORIZON-CL2-2024-TRANSFORMATIONS-01-11.

The event is organized by the Consiglio Nazionale delle Ricerche (CNR) - Istituto di Ricerche sulla Popolazione e le Politiche Sociali (IRPPS).

The event will take place in Rome on the 23rd and 25th of September and on the 7th and 9th of October 2025 at the IRPPS-CNR located at Via Palestro, 32. Attendees can choose to participate either in person or online via the Microsoft Teams platform.

Please read the participant information sheet carefully and check the boxes below if you agree to the terms.

We collect your personal information, including your name and contact details, to facilitate your participation in the event and to manage organizational arrangements.

Please be aware that during the event, you may be photographed or filmed.

With your consent, the organizers may disclose, publish, transmit, or quote any such material in scientific publications or other communication materials.

You have the right to withdraw your consent at any time and can object to the processing of your data by informing the organizers.

The organizers process personal data in accordance with Regulation (EU) 2018/1725, which applies to

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Union institutions and bodies, as well as Regulation (EU) 2016/679, known as the GDPR.
The information sheet provides participants with details on how their personal data is processed.

Read the Privacy Policy *(link to the privacy policy)*

Read the information sheet (link to the information sheet)

Registration data:
- Name
- Family name
- E-mail
- Affiliation

Which stakeholder group do you belong to?
- Associations
- Educators
- IT experts
- End users
- Employees' representatives
- Policy makers
- Other

On which date will you attend the event?
- 09/23/2025 from 3 p.m. to 6 p.m.
- 09/25/2025 from 3 p.m. to 6 p.m.
- 10/07/2025 from 10 a.m. to 13 a.m.
- 10/09/2025 from 9 a.m. to 12 a.m.

Type of participation
- In-person
- Online

Participation in this co-creation event is only possible if the participant freely and independently signs this consent to authorize us to use the data that they provide. If the participant does not wish to do so, they cannot participate in this co-creation event.

Declaration of consent
- I am 18 years old or older and can provide my consent.
- I have been thoroughly informed about the goals and purposes of the event.
- I am aware that there is no obligation to participate in the event.
- I have read or had this consent form and the information sheet read to me.
- I confirm that I have had the opportunity to ask any questions and receive answers.
- I consent to the use of my data in the NewWorkTech project, as outlined in the information sheet.
- I freely and voluntarily agree to be part of this study, subject to my legal and ethical rights.
- I am aware that I can refuse to answer any question and withdraw at any time without penalty.
- I agree to be video and audio recorded and photographed by researchers of the research team.
- I understand that these videos will be transcribed.

This consent form is made pursuant to the relevant national, European and international data protection laws and regulations and personal data treatment obligations.

Participants in the Italian co-creation events will be engaged in discussions based on the scenarios and questions established during the problem definition phase of the co-design framework. Four co-creation events will be conducted: each focused on a specific type of disability - hearing impairment, vision impairment, cognitive disability, and physical disability - resulting in a total of eight interaction scenarios. During each event, scenarios related to that disability will be presented and discussed to ensure shared understanding among participants. To promote an inclusive process that allows all participants to have an equal voice, everyone will be encouraged to express their needs and perspectives regarding interactions with emerging technologies in the workplace. The eight scenarios will serve as a foundation for collaborative discussions to explore user needs and requirements. After presenting each scenario, stakeholders will participate in collaborative discussions, where they will be asked a set of questions that will be addressed one at a time about the interaction forms and functionalities related to the users' needs and limitations within each scenario. After the introduction of each scenario, stakeholders will have the opportunity to introduce themselves to foster a collaborative environment.

Participants will use the online tool SLIDO to facilitate responses, allowing participants to submit their answers through a link in the presentation slides or by scanning a QR code with their smartphones or computers. Additionally, participants will have the option to provide their responses orally if they prefer.

They will have five minutes to answer each question and could request clarifications if needed. Following this time, a general discussion among all stakeholders will be moderated by CNR. Each response will be discussed collectively to clarify meanings, share opinions and suggestions, generate new ideas, and ensure all voices are heard. This collaborative approach aims to enhance understanding of the interaction process with technologies in work environments.

Data collected during these co-creation events will be analysed and refined to develop guidelines for designing accessible, sustainable, user-friendly interaction technologies that effectively enhance task activities in the workplace. These activities represent the prototyping phase of the design thinking framework established for the NewWorkTech project.

6 How to apply the co-creation framework in the Danish context

The last phase of the framework, the testing phase, will be implemented in Copenhagen in month 20 of the project, following the co-design framework outlined in the previous sections. During this phase, requirements and results developed in the prototyping phase will be validated. At this stage, insights (prototypes) from the Italian co-creation events will be assessed to evaluate their effectiveness and adequacy.

The test phase will be carried out through the organisation of co-creation events that will validate and adapt the requirements previously defined. These events, in fact, will focus on assessing the knowledge acquired during the Italian co-creation events, with the goal of validating insights on a conceptual level by gathering qualitative input from a culturally different country. Based on the results, feedback, and critical reflections from previous Italian co-creation activities, the testing phase will facilitate a comparative analysis of the identified problems and proposed solutions.

The aim of these events will be, on the one hand, to confirm which aspects of the suggested solutions are

effective, considering territorial, cultural, and social characteristics; on the other hand, to identify criticalities, limitations, and opportunities for improvement. Furthermore, implementing the test phase in another geographic context will enable us to assess the scalability of the solutions and to develop more effective technologies.

6.1 Steps to implement the testing phase

The testing phase should be carried out through a series of structured steps.

The first step involves identifying and mapping local stakeholders, including people with disabilities, their representative associations, policy makers, and developers who will be involved in the testing activities. The second step focuses on engaging the identified stakeholders by inviting them to participate in the co-creation events. The purpose of the project and of the co-creation process, and the goals of the assessment will be clearly explained. Stakeholders who agree to participate must sign an informed consent form and read the information sheet and privacy notice (see attachments for privacy documents).

The third step involves organizing one or more co-creation events with the heterogeneous stakeholders to have different and complete points of view, ensuring a broad range of perspectives. During the events, participants will be introduced to a summary of the results and knowledge gathered by CNR in previous co-creation events. These insights will be presented through documents or presentations to enable a shared starting point. Discussions will be structured around eight scenarios originally developed in Italy and adapted to the Danish context. These scenarios represent real-life work situations, two for each disability type, covering both manual and office-based work environments (see Section 5). Starting from these scenarios, participants must reflect on how technologies support or hinder people with disabilities. Therefore, a set of questions referring to these scenarios will be asked to participants to assess insights from the Italian context and give their suggestions to improve and integrate them in their context.

- Sample questions to explore during the co-creation events could include:
- Considering your experience and local context, are the technologies mentioned in this scenario useful? Are there alternative technologies that may be more effective?
- Are there any additional challenges in using these technologies that have not been mentioned previously?
- Do the suggested solutions apply to your situation?
- How can user interaction with technology be improved?
- Do you have any alternative suggestions or recommendations?

Participants will be able to respond via the online tool SLIDO, using a provided link, or orally if they prefer. Following the responses, a general discussion among all stakeholders will be moderated, thus enabling knowledge to be collectively updated and improved.

The fourth step involves gathering feedback and suggestions in real time to identify points of convergence and divergence. Facilitators will synthesise the insights, observations, and proposals that emerge during the discussions, encouraging the development of new ideas to enhance or complement the identified requirements.

At the conclusion of the event, a summary document will be produced outlining the assessment outcomes, including validated findings, points of disagreement, and newly proposed recommendations.

This iterative, participatory process contributes to enrich and validate knowledge in a shared and contextualised way, supporting the creation of more effective and inclusive guidelines for the development of new technologies.

7 Conclusion

This deliverable outlined the theoretical, methodological, and operational structure of a co-creation

framework aimed at gathering valuable insights into user interaction needs by actively engaging stakeholders. By facilitating open dialogue, collaborative events, and iterative feedback loops, this framework effectively surfaces user expectations, uncovers pain points, and identifies opportunities for innovation in the development of new technologies that support work environments.

Based on the Design Thinking approach, the framework aims to systematically collect and analyse the interaction needs of people with disabilities in the workplace, translating them into concrete design requirements for the development of inclusive and accessible technologies. Through an iterative process structured around five phases (Empathize, Define, Ideate, Prototype, and Test), the framework ensures the active involvement of people with disabilities, their representative associations, institutional stakeholders, and technical experts. Furthermore, the co-creation framework not only ensures that user voices are integrated into the discovery phase but also fosters a sense of ownership and alignment among participants. The co-creation framework has been designed to be applied within the Italian and Danish contexts through specific co-creation events. Findings from these events will directly inform the design and development of user-centric solutions, ensuring they are based on real-world needs and behaviours. The proposed framework represents a valuable methodological tool for guiding the design of inclusive technologies, promoting a user-centred, evidence-based approach. Moving forward, it will be essential to maintain a collaborative mindset and continue involving users in key decision-making stages to achieve impactful and sustainable outcomes in the development of new technologies that support people with disabilities in various work environments.

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Annex 1

INFORMATION SHEET

NewWorkTech
**From the margins to the masses: Standard practices and innovative uses of technology in augmenting
different abilities of people in the world of work**

Grant Agreement No. 101177176
HORIZON-CL2-2024-TRANSFORMATIONS-01
Topic HORIZON-CL2-2024-TRANSFORMATIONS-01-11

Co-creation event

You are invited to participate in the co-creation event of the NewWorkTech.

The co-creation event seeks to co-create knowledge on the interaction behaviours of people with different abilities. This event will be carried out to identify functional and experiential requirements useful for the definition of guidelines for the implementation of the new technologies.

After reading this information sheet, you will have the opportunity to ask any questions you may have.

Purpose of the research

The NewWorkTech project engages in research-based enhancement of the work-related capacities of a) people with disabilities and b) the general workforce, with particular focus on technologically mediated tasks and interaction. The project covers the entire arc of development from empirical research into how people with disabilities, as forerunners of technology use, perform tasks and interact at work, to theoretical innovation regarding the nature of socio-material assemblages as well as what constitutes technology, to policy recommendations, and the development of new technological solutions, including AI-based technologies.

As part of the NewWorkTech Project, the primary purpose of the co-creation event is to co-create knowledge with users and stakeholders to understand and advance the experiences of human-technological interaction in the workplace.

You can find the partners of the Project and have more information about it at
https://cordis.europa.eu/project/id/101177176

Description of the process

The purpose of this event is to collect information that allows the design process of new accessible technologies by gathering users' and other stakeholders' experiences, delivering innovation designed with and by people.

For this co-creation event, "Consiglio Nazionale delle Ricerche ("CNR", "we", "us")" is the controller of the personal data that will be processed.

The data collected through the co-creation event will be dealt with diligently.

Procedures for collecting research data

If you choose to participate in this co-creation event, you will take part in a live co-creation session that will take place in Rome, on the 23rd and 25th of September and on the 7th and 9th of October 2025, for a total duration of 3 hours.

Please note that the co-creation event will be held in a hybrid setting. This means it will be possible to join the discussion either in person or online via the Microsoft Teams platform.

During the event, we will ask you to express your opinion on a series of pre-defined questions. To collect and later analyse your answers, we will use a tool called "Slido". Answers will be submitted in anonymous mode, meaning they cannot be traced back to individual users. Once submitted, these answers cannot be deleted

since it is not possible to identify who provided them.

Potential risks and benefits of participation

You will not receive any direct benefit from participating in the co-creation event. There is no remuneration for your participation in the study.

However, you will contribute to identifying functional and experiential requirements useful for the definition of guidelines for the implementation of the new technologies for people with different abilities.

The procedures and methods used during this study do not involve health risks, social risks, financial risks and risks relating to personal data breaches.

Data confidentiality, processing, and storage

All personal data collected during the study will be processed in compliance with the EU's General Data Protection Regulation (GDPR) and the data protection laws of Italy. You have the right to:

obtain information as to whether we process your data and details relating to our processing;

- access and obtain a copy of your personal data;
- modify or correct any erroneous data;
- request that restrictions be placed on the processing of your data;
- request that we erase your data;
- request to transfer or receive a copy of your data, in accordance with the right of data portability.

Requests for any of the above should be addressed by email to the Principal Investigator at tiziana.guzzo@irpps.cnr.it (email of principal investigator for CNR) and the Data Protection Officer at dpo@cnr.it. Your request will be processed within 30 days of receipt. Please note, however, it may not be possible to facilitate all requests, for example, where the CNR is required by law to collect and process certain personal data, including that personal information that is required of any research participant.

It is your responsibility to let the Principal Investigator know if your contact details change.

In case there is reason to assume that the processing of your data violates data protection law or if your data protection rights have been otherwise infringed, you have the right to lodge a complaint with the supervisory authority of your country.

Protecting the privacy of participants in research papers/publications

The research materials and data collected during the study will be retained by CNR for 5 years, after which they will be securely destroyed.

Funding sources

Research project funded by the EU.

Voluntary participation

Participation in this study is entirely voluntary, and you have the right to withdraw from the study at any time, either permanently or for a temporary period. Even after participating, you can still stop. Please indicate this by contacting us. We will delete your data. Sometimes we need to keep your data so that, for example, the integrity of the study can be checked.

Privacy protection in the context of research papers and communicating about the study

Data will be presented in aggregated and anonymized form per stakeholder group or other characteristics in scientific publications and project reports.

Inquiries

Please direct all inquiries about the study to the Principal Investigator at tiziana.guzzo@irpps.cnr.it and the Data Protection Officer at dpo@cnr.it. Your request will be processed within 30 days of receipt. Please note,

however, it may not be possible to facilitate all requests, for example, where the CNR is required by law to collect and process certain personal data, including that personal information that is required of any research participant.

Researchers' contact details

CNR
tiziana.guzzo@irpps.cnr.it
mariachiara.caschera@cnr.it

Annex 2

PRIVACY NOTICE – SCIENTIFIC RESEARCH

NewWorkTech
From the margins to the masses: Standard practices and innovative uses of technology in augmenting different abilities of people in the world of work

Grant Agreement No. 101177176
HORIZON-CL2-2024-TRANSFORMATIONS-01
Topic HORIZON-CL2-2024-TRANSFORMATIONS-01-11

This privacy notice describes how we process your personal data in compliance with data protection legislation. In data protection legislation, the term "data subject" refers to the person whose personal data are processed. In this privacy notice, we refer to the data subject as "you" and the controller as "we".
This privacy notice may be updated or edited if necessary. You will be notified of any significant changes as mandated by data protection legislation.
This privacy notice came into force on 01.06.2025

Controller
The data controller for this research project is the Consiglio Nazionale delle Ricerche (CNR), located at Piazzale Aldo Moro 7, Rome. The CNR is represented by the Director of IRPPS, in accordance with the Rules of Organization and Operation (ROF). For more information, you can contact us at direttore@irpps.cnr.it.
The research project will be carried out by researchers of the Institute for Research on Population and Social Policies (IRPPS-CNR).
The contact person for questions about data processing is Tiziana Guzzo, a researcher who can be reached at tiziana.guzzo@irpps.cnr.it
If you have general questions about data protection at CNR, please email our Data Protection Officer a dpo@cnr.it

Scope and purpose of data processing
Name of the research project: From the margins to the masses: Standard practices and innovative uses of technology in augmenting different abilities of people in the world of work (NewWorkTech)
This is a one-time research project that will last until 30.11.2027.
We will process your personal data as part of a research project. The purpose of processing your personal data is to conduct the research project specified above.
The research project engages in research-based enhancement of the work-related capacities of a) people with disabilities and b) the general workforce, with particular focus on technologically mediated tasks and interaction.
During this research project, personal data will be processed in the following manner:
Personal data will be used only for the recruitment and registration of participants to the event.
The principal investigator (lead researcher) is responsible for overseeing the research project. The research group may also be assigned to serve as the principal investigator, with its members participating in conducting the research project.

Principal Investigator:
Name: Tiziana Guzzo
Address: Via Palestro, 32, Rome, Italy
E-mail address: tiziana.guzzo@irpps.cnr.it
The research findings, reported in aggregate form so that individual research participants cannot be identified,

are intended to the published in relevant scientific journals.

Lawful basis for processing personal data
The lawful basis for processing your personal data is consent (of the data subject)

Sources and types of personal data
We will collect data from you as the data subject

We will process the following types of personal data:
General personal data
Category: Recruitment of participants to the co-creation event
Personal data processed: Name, contact details, and other personal information disclosed in conversations or documents.

Transfer and disclosure of personal data
Your personal data will not be transferred outside the EU/EEA.
Your personal data will not be regularly disclosed to other controllers.

Protecting personal data
Your personal data will be protected using appropriate technical and organisational measures. We will protect your data through technical measures, including antivirus software, firewalls, and regular software updates. Users who can access personal data are required to log in with a username and password or, in some cases, with multi-factor authentication.
We will also protect your data through organisational measures. Our staff are obligated to maintain confidentiality, and access to data is restricted. If necessary, we will implement additional safeguards to protect data, such as separate storage locations.
Any physical documents will be safeguarded by storing them in locked facilities.
Material will be:
collected without direct identifiers
anonymized after collection
During this research project, your data will also be protected through the following measures: Data will be stored on the computer of authorised researchers and protected by a confidential password.

Retention period for personal data
We will retain your personal data for only as long as necessary, as determined on a case-by-case basis. The retention period also depends on the requirements set out in data protection legislation. We will adhere to our Data Management Plan and all applicable legislation when determining the retention period of personal data.
Your personal data will be retained as follows: describe the key retention periods or the criteria for determining them.
Data will be stored for 5 years after the end of the project.
After the research project has been completed, the research records containing personal data will be destroyed in their entirety.

Profiling and automated decision-making
We will not use your personal data for profiling or automated decision-making.

Data subjects' rights and how to exercise them
Data protection legislation affords certain rights to data subjects, depending on the lawful basis for processing their personal data. Under certain circumstances, your rights may be restricted, for example, due to our legal obligations or if personal data are processed for scientific research, statistical, or archiving purposes. If your

rights have been restricted, we will implement appropriate and necessary technical and organisational measures to protect your privacy. As a data subject, you have the following rights, which you can exercise by sending us a request.

Right of access
You have the right to request confirmation of whether we hold your personal data and to receive a copy of the data we hold.

Right to rectification
You have the right to request that any incorrect or incomplete personal data we hold about you be revised or supplemented. You can also request to have any unnecessary personal data be erased from our records.

Right to erasure
You have the right to request the erasure of your personal data from our records ("right to be forgotten") under certain circumstances.

Right to restrict processing
You may have the right to restrict the processing of your personal data in certain cases defined by law. For example, this right may apply if you believe the personal data we hold about you is incorrect or that your data are being processed in violation of data protection legislation, or if you have opposed the processing of your data.

Right to object
In certain circumstances, you have the right to object to the processing of personal data on grounds relating to your particular situation.

Right to data portability
Under certain circumstances, you have the right to request that the personal data you have provided be transferred to another system.

Right not to be subject to automated decision-making
You have the right not to be subject to decisions based solely on automated processing (such as profiling) that produce legal effects concerning you or otherwise similarly and significantly affect you. However, there are exceptions to this prohibition.

Withdrawing consent
If your personal data is being processed based on your consent, you have the right to withdraw your consent at any time.

Right to lodge a complaint with a supervisory authority
You have the right to lodge a complaint with a supervisory authority (Data Protection), if you believe that the processing of your personal data violates data protection legislation.
Office of the Data Protection CNR Roberto Puccinelli
Street address: Piazzale Aldo Moro, 7, Rome
Postal address: 00185
Email address: dpo@cnr.it