



EASPD Lighthouse Network

6 promising practices on the use of digitalisation and technology to support persons with disabilities at work and in vocational education trainings

A booklet by EASPD's Member
Forum on Employment



6 promising practices by the Member Forum on Employment

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Foreword

The right to work is a fundamental right that is enshrined in the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) and in the Constitutions of the the EU Member States. It is worth mentioning that article 27 of the UN CRPD also indicates a series of measures to "...guarantee and favour the exercise of the right to work, including for those who have suffered a disability during employment...", removing the obstacles that the world of work currently poses and implementing appropriate technical and legislative actions, as established by the International Labour Organization (ILO) through the principle of "decent work".

However, the competitiveness of the labour market, not only in terms of the supply of employment, but also in terms of a continuous evolution of the professions makes the relationship between disability and work increasingly complex: it requires constant innovation at the cultural, training and methodological levels, in order to face the risk of the onset of new processes of exclusion, which is due, in most cases, to increasingly sophisticated and articulated operating situations. For this reason, training people with disabilities in a culture and a profession is one of the primary objectives of many service providers in the EU and beyond, where having people with special needs fully integrated into the job market is a priority.

At the same time, the perspectives for the inclusion of people with disabilities in the



open labour market have partly expanded in recent years, mainly through the use of technology. Furthermore, the decrease of architectural barriers, the culture of adaptation of workspaces and the use of targeted equipment, allows workers to carry out their tasks independently, comfortably and productively, and to maintain their ability to work in the long term.

Over the years, countless initiatives have been carried out in this field in many EU Member States and beyond: protected employment activities, support in the integration into the work environment, training courses and professional paths for people with disabilities, including for individuals with severe disabilities, and even university attendance for some.

We believe that this collection of promising practices published in the framework of the Lighthouse Network can serve as an inspiration and example for service providers on what is currently used in terms of digitalisation and technology in order to include persons with disabilities on the labour market.

Fabrizio Fea
Co-chair of the Member Forum on Employment

Introduction

The Lighthouse Network was created to share solutions among EASPD members with the aim of learning from each other. The network brings together members with a certain expertise with members who wish to learn and increase their capacities in specific areas.

In 2021 the Member Forum on Employment had the opportunity to take part in the Lighthouse Network activities developing a series of promising practices in the area of digitalization and technology to better support persons with disabilities at work and in the VET. The aim of these promising practices is to develop high-quality support services that promote the full participation and inclusion in the working environment of all persons with disabilities through technological innovation. Fostering innovation and being informed on the latest developments is crucial to facilitate life of individuals with additional needs. EASPD strive for a type of innovation where technological development is an added value for persons with disabilities and does not undermine the rates of employment.

Our final objective is to have a positive impact on service providers by sharing examples that are successfully implemented on the field with other members. The future challenge will be the development of appropriate services to ensure inclusion, in line with the UN Convention on the Rights of Persons with Disabilities. For this reason, EASPD advocates for a technology which helps and does not segregate persons with disabilities.

Fabrizio De Angelis
Policy officer



¡EPA! Empleo Público Accesible

Confederación Plena inclusión España
Spain

Umbrella organization providing lifelong services for people with intellectual and developmental disabilities and their families.

Context and challenges targeted:

Spain has a quota system specific for public employment calls where a minimum of 7% of all the employments in a call should be ring-fenced for people with disabilities. 5% for people with any kind of disability and 2% only for people with intellectual disabilities.

In 2012, the first exam for a public employment call, specific for people with intellectual disabilities, was held: 54 places were opened for all of Spain. Since that year, 428 places have been called throughout Spain and more than 7,000 people have participated or are participating in the calls. More and more people with intellectual disabilities are registered for public employment competitions that the ministry offers each year, but year after year the same difficulty is repeated:

- The information that is published is not accessible.
- The changes that take place throughout an opposition are difficult to follow.
- There is no place of reference in which people can be trained and informed in an easy way.

The project whose follow-up is presented below will try to facilitate the points described above.

The objective of this project is to promote the inclusion of people with intellectual disabilities in the Public Administration through an online platform.

Facilitate access to information on current calls for public employment at the state, regional and local levels aimed at people with intellectual disabilities.

Description of the digital solutions:

Plena inclusión has developed an application available on Google Play and also as a web: Designed, tested and validated of the different development phases.

Coordination and monitoring of suppliers.
Generation and organization of content at the state, regional and local level of ongoing calls.

The application has been available to the public for free since 2019 and has more than 1,000 downloads.

The application is easy to navigate and the developers were in close coordination with a group of people with intellectual disabilities, this group of people are workers of a cooperative specialized in cognitive accessibility. The role of this group was to use the beta version of the application in order to make it usable and easy to understand. The advice given by this group of people with intellectual disabilities was a key tool and improved the usability of the application.

In order to make the application more accessible, an easy-to-read manual has been developed by the cooperative in charge of validating the cognitive accessibility of the application. This manual explains how the application is used and is prepared following the Easy-to-Read guidelines.

Users' perspective: Outcomes and impact

More than 1,000 people have downloaded the application.

The application includes important information about the calls for public employment. More than 7,000 people with intellectual disabilities have participated in the public employment calls at national level.

The application is accessible for people with intellectual disabilities, but it is also used by their families and service providers. It is a very useful tool to find updated information about public employment calls at national, regional and local level, specific for people with intellectual disabilities. The application also informs about the most important deadlines for the calls. It is also a tool where you can find information to prepare for the exam (exercises, paper to study for the exam, mock exams...)

Public employment is very attractive employment option for people with intellectual disabilities but also for their parents and their involvement in this project is very important. Society benefits from having really well prepared and committed public servants.

Expected future developments

Plena inclusión wants to keep using the application with more and more public employment calls.

It is an important part of the work to keep the information updated and we have regular meetings every 15 days with their member organizations to make sure that all public employment calls specific for people with intellectual disabilities are available and updated in our application.

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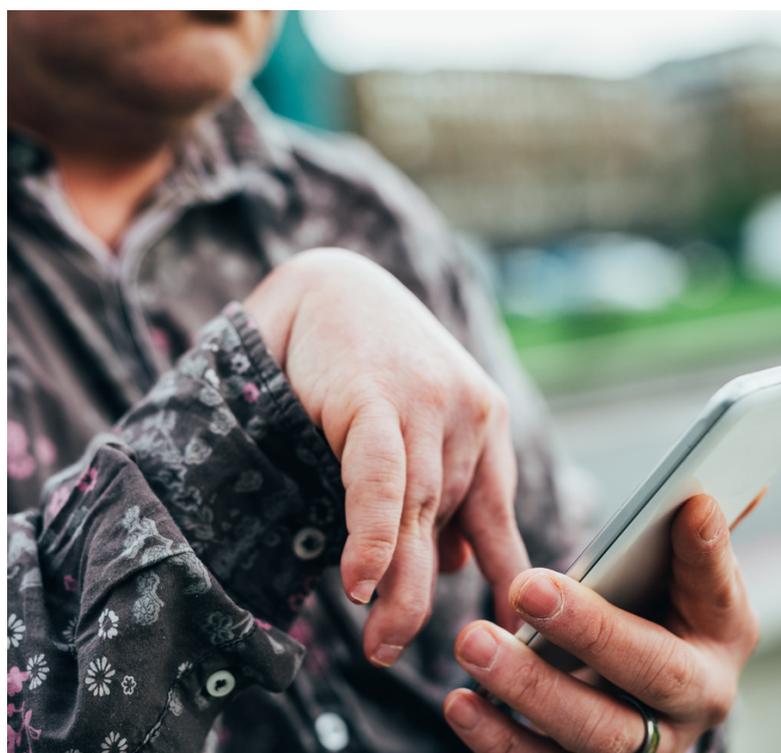
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wertkreis Gütersloh gGmbH

wertkreis Gütersloh gGmbH

Germany

Sheltered Workshop.

Context and challenges targeted:

Following considerations for the development and the implementation of a combined CAD/3D learning- and manufacturing setting were decisive:

- People with disabilities should be qualified in a modern, technological setting which is relevant for the labour market.
- People with interests and competences in the field of digital technologies should be given opportunities to apply their interests in a professional context and to develop them. They could be given employment prospective that suits their interests.
- Especially CAD/3D printing knowledge enables people with disabilities as “experts of their own actions” to design individual devices and tools that help them and others in their daily life.
- People with severe physical disabilities have the opportunity to use these technologies – sometimes with their self-designed and self-developed tools.

Using self-designed and produced aids and tools can, among other things, help to compensate physical disabilities and make it possible to increase the chances of social participation and the access to barrier-free environments and facilities.

One of the challenges of the project was the development and the installation of specific interfaces adjusted for individual types of disabilities that coop between humans and “machines”. Moreover, suitable soft- and hardware had to be found to guarantee an interaction between professional requirements and individual needs of people with disabilities.

Description of the digital solutions:

The project that was started in 2019 was brought to people with disabilities who participate in the qualification program. People with or without previous knowledge about modern, industry-standard 3D/CAD systems had the opportunity to learn the control, the operation and the maintenance of 3D printers as well as technical drawing.

Seven CAD workstations equipped with industry-standardised CAD software as well as disability-specific aids and tools, such as operating elements or electric-wheelchair connections, were set up. Individually adjusted hard- and software settings enable learning without barriers. They were developed with and, in some cases, by the participants.

First the basics of technical drawing and the operation of the 3D/CAD software are introduced to the participants of the qualification program. The content of the program includes the explanation of the coordination-system the units of measurement and the zero point. For exercising reasons, the first simple geometries are created. Following on the just described, the extrusion form 2D to 3D

and the creation of assemblies are learned. Further contents of qualification are the handling of specific elements of a 3D/CAD software such as the creations of curves as well as material-science and dimensions.

Concerning 3D printing qualification, participants first get to know different painting-processes and the 3D printing software. Furthermore, they learn about the maintenance, the operation, the material as well as nozzle selection of the 3D printer.

After a short period of time the participants already were able to design and print simple tools and aids. At first, items for personal use were designed and manufactured, in the ongoing process other items such as cup holders for wheelchairs are produced for other people. With the handling going progressively better, individually designed worktables, accessories for assistance-systems or robots as well as assembly devices were manufactured. In the process many creative and innovative ideas were developed. It was possible to implement them into the system immediately. The participants found it very fascinating and motivating working with 3D/CAD and 3D printing. Some said it awaked their potentials.

Users' perspective: Outcomes and impact

The implementation of the educational setting “constructions and 3D printing” made it possible to open up new, modern and innovative work opportunities for people with disabilities. Participants of the qualification program get access to the latest technologies and are able to encourage and develop professional interests, skills and abilities in a highly innovative education environment.

The qualification program not only provides labour market-related skills, but also opens up new fields of activities of workshops for people with disabilities. Especially in the industrial sector, the need of development in 3D/CAD and 3D printing increases.

In inclusive events where the project was presented and promoted to companies, workshops and associations, it got great response from the industrial sector.

The participants are able to experience that they have the opportunities not only to develop the process but also to implement it, beginning with brainstorming and going on with design and production. They experience that items and aids they constructed can help themselves and others but can also be suitable for industry. The skills participants learned not only give them self-confidence and ensure recognition, but also increase their chances on the labour market.

The feedback the participants gave confirmed the new chances they had due to the 3D/CAD and the 3D printing work opportunities.



Expected future developments

Due to the great interest and the high motivation the participants showed during the qualification program, the process was continuously expanded and will be further developed.

In the near future, it is planned to increase the number of CAD workstations and to expand 3D printing capacities. At the same time the conception of a location-independent education-program takes place to provide the qualification of a wider range of participants. Mobile assistance-systems can support 3D/CAD and 3D printing regardless from their location. The assistance for participants can be ensured using tablet computers with specialized AR software. For this purpose, there are online qualifications which are supported with filmed material and by external companies.

In-house requests and requirements but also from companies from the labour market provide exercises for participants. Aids, worktables and control cabinets are being constructed in these exercises. Since Autumn last year exercising assignments from companies, working in the field of construction and conversion of 2D and 3D drawings are made. Plans of continuously expanding the network of companies, educational institutions as well as other initiatives in 3D printing such as "FabLab" are implemented at the moment. Likewise, public relation is working on solutions making the possibilities and opportunities visible for public. People with disabilities report about the skills they learned using 3D/CAD and 3D printing, about the possibilities and perspectives offered as well as how to overcome barriers.



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DIAZ- Digitales Assistenzsystem

wertkreis Gütersloh gGmbH

Germany

Sheltered Workshop.

Context and challenges targeted:

The UN Convention on the Rights of Persons with Disabilities (UN CRPD) clearly demands an increase of the integration of people with disabilities. This demand necessarily leads to the task to develop new integrating methods and strategies in order to fulfil requirements in future. Besides the increasing development and the introduction of digital assistance to enable participation. It also includes the education and the inclusion in the labour market.

Due to the changing contract- and therefore related requirements of competence for employees as well as changed structures in employment itself. (e.g. demographic change, shortage of professionals), results to an even greater need of technical assistance.

At the same time, digital assistance ensures compliance with the quality standards, which are becoming more important.

In addition to the aspects already mentioned, technical assistance enables people, especially those with cognitive and linguistic restrictions, to learn and carry out complex work as well as promoting various skills. This reveals a wider spectrum of working opportunities as well as a greater number of various activities.

At the same time, the satisfaction in relation to labour and self-confidence are expanding.

At the beginning of the development process of the assistance-systems, the following basic ideas were focused:

- Which are the possibilities for people with disabilities to benefit from the digitalization and the mechanization of their workplaces?
- How to react on the processes of change occurring in the working world including the participation of people with disabilities?

These considerations led wertkreis Gütersloh gGmbH to start the development of digital assistance-systems with specific adjustments for people with disabilities in cooperation with the Fraunhofer-IOSB INA in the year of 2017. The in-house-development became necessary because the market didn't offer any appropriate assistance-systems especially according to the software the systems held. The focus was laid on the simple creation of work-instructions.

Description of the digital solutions:

The assistance-system (DIAZ= digitales Assistenzsystem /digital assistance-system) is a pick-by-light assembly- respectively a packaging-working place. A beamer, a camera, a small PC as well as a touchscreen are built in in the assistance-system. These build in electronic components guide users through a wide variety of different assembly- and packaging processes. Luminal signals and projections can access information and the amount of parts to be used in the respective work-step on the location. The correct removal of parts is acknowledged with the approval of the next work-step. In the case of incorrect removal, the hand is illuminated in

red and an error message appears on the screen. The assembly-manual is paused, until the correct material is picked. This allows mistakes to be identified at an early stage and rectified immediately. Specific step-by-step assembly-manuals are projected onto the work surface, the user's field of vision and, if necessary, onto a screen via video and/or image material. Each work-step is confirmed by the user and thus the next step is approved. This allows the users to determine their individual work pace. Furthermore, the system can be adapted to the respective need for assistance. The creation of manuals is simple and can be done via drag and drop and with the help of smartphones and is in some cases taken over by people with disabilities.

The system is versatile, flexible and can be adapted to individual needs of users concerning both hardware and software.

DIAZ is used in everyday workshop-life, for qualification, incorporation along with the preparation for jobs on the labour market. DIAZ is used by people with mental- as well as people with cognitive disabilities. The application allows to handle more complex works and reinforces self-confidence and self-assurance.

Users' perspective: Outcomes and impact

DIAZ makes a significant contribution to the preservation to maintaining participation in the working-life and increases the chances of transitions on the labour market for people with disabilities.

DIAS facilitates a wide spectrum of working

options and activities for people with disabilities. This leads to a promotion of the users' competences.

Through an ongoing use in the field and its therefore resulting experiences it was possible to continuously adapt DIAZ to the individual needs of its users and got improved during the past four years of development in cooperation with Fraunhofer IOSB INA.

Furthermore, an evaluation of the handling with DIAZ was "started" in this regard.

The questionnaire for users was divided into four categories:

1. General

Users are asked about their general experiences in the use of assistance-systems, including the question whether they have already worked with any assistance-systems.

2. Handling of the assistance-system

In this category the handling of the assistance system is addressed. To what extent does the assistance-system facilitate the work or helps its users to carry out work-steps which users wouldn't be able to process before.

3. Acceptance of DIAZ

Users are asked for their acceptance of the assistance-system. In what scope is the use of DIAZ exciting, motivating or rather bores its users.

4. Symptomology

In this last category users are asked to what extent DIAZ affects their physical and mental wellbeing. Does DIAZ cause headache, restlessness or concentration difficulties?

The assistance-system altogether got graded “sehr gut”, which is an equivalent to “A”.

52 users were asked for their opinion.

The first concrete results about the use of the assistance-systems are that people with cognitive disabilities get enabled to carry out more diverse and complex tasks. Especially the use of videoclips and audio output makes learning processes more accessible and has a positive effect on participation. DIAZ enables users to experience new and more diversified activities and enhances the chances of transitions to the labour market.

In inclusive events, where the assistance-systems were presented and promoted, various companies showed their interest in the use of the systems

Expected future developments

DIAZ assistance-system will continuously be further developed in cooperation with Fraunhofer IOSB INA and adapted to the individual needs of people with disabilities.

People with disabilities are the centre of further development. As “experts of their own actions” they give impulses to further steps.

Mobile forms of support are becoming more important not only due to the corona pandemic. Mobility and flexibility are highly relevant at this point. Established devices such as smartphones, smartwatches or tablet computers can provide a fast location-independent assistance to users. For this reason, various approaches for the development of mobile assistance-systems are taking place in cooperation with Fraunhofer IOSB-INA and other external partners.

The long-term goal of the project surely is that, at some point, assistance-systems will be used as

normally as walking aids, because its use has great benefits and opportunities on people with disabilities.

Assistance-systems are not only of great use in the concrete work in workshops for people with disabilities: they also have an impact on the reduction preparation- and conversion times especially with orders in great verities of versions and a low order-volume. At the same time, they are an important quality assurance tool.

The system can be used permanently or for educational purposes only. Particularly in times of shortage of professionals, the assistance-system can help integrate people with disabilities onto the labour market – primarily because of its visual componce and its language-independent use. Another option the system provides is that it can help people who are not/ or not yet able to speak the German language to find a way into the labour market.

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MyWay Application

Shekulo Tov Group

Israel

Shekulo Tov Group specializes in transitioning people with psycho-social disabilities from sheltered/supported employment to the open labour market based on a groundbreaking model and training in social businesses within the community. In the past five years Shekulo Tov implemented more than a 1,000 service users into the open labour market where they earn at least minimum wage and begin professional careers.

Context and challenges targeted:

The biggest challenges facing our team were demanding bureaucratic requirements and our service users' dependency on our services while maintaining low levels of ownership over their own rehabilitation process. Digitalization, however, can greatly reduce the effect of regulations and bureaucratic overload and can help the transitioning from sheltered to supported employment while working in the open labour market. In addition, digitalization can provide service users with the ability to be proactive and more independent than ever before, which are long known to be cornerstones of a successful rehabilitation process (Farkash, 2013).

The idea to create MyWay was born with the aim to enhance the influence of service users on the decision making process. As part of our work, Shekulo Tov's service users reshape and redesign

their recovery plan every three months together with their professional team. We then asked ourselves, why only every three months? Why not do so more often or perhaps even more seldom?

MyWay helps professionals have a constant overview of the progress made by each of their service users in their rehabilitation plan, helping these professionals to better assess where their attention should go and what part of the plan can be updated next.

Description of the digital solutions:

While at home, in a sheltered environment, or at their job, the daily reporting on task completions encourages more frequent interactions between service users and professional teams. Unique algorithms suggest existing modules and templates to improve rehabilitation results to the professional team while maintaining the flexibility required to properly meet the needs of each specific service provider, service user, and their professional team. This provides a new innovative method for confidence-building among service users that cultivates the environment needed in order for them to take additional steps toward job placement and career development. MyWay provides an additional support mechanism for service users since it intelligibly organizes and tracks tasks with reminders and progress reports. Furthermore, our application works under strict guidelines of data security as required by the Israeli Ministry of Health.

Users' perspective: Outcomes and impact

MyWay facilitates a continuous interactive connection between social workers, IPS specialists, and each of their service users, which increases support, independence, personal responsibility, and a positive approach toward the rehabilitation process. Furthermore, and for the first time, the interface for professional teams introduces interactive, person-oriented, and decision-based rehabilitation plans. Accordingly, the MyWay app aims to make the open labour market more accessible for people with disabilities; it is designed for various types of vocational rehabilitation services such as Daycares, Sheltered, Supported, Inclusion Companies, as well as, for independent users with a desire to acquire skills for the open labour market.

Expected future developments

All in all, MyWay can dramatically change the process of building, managing, and implementing vocational rehabilitation plans for vocational rehabilitation providers around the world. There will also be a short demo of the app's unique value proposition and advantages as well as a release of the capabilities that will soon be added to the app.

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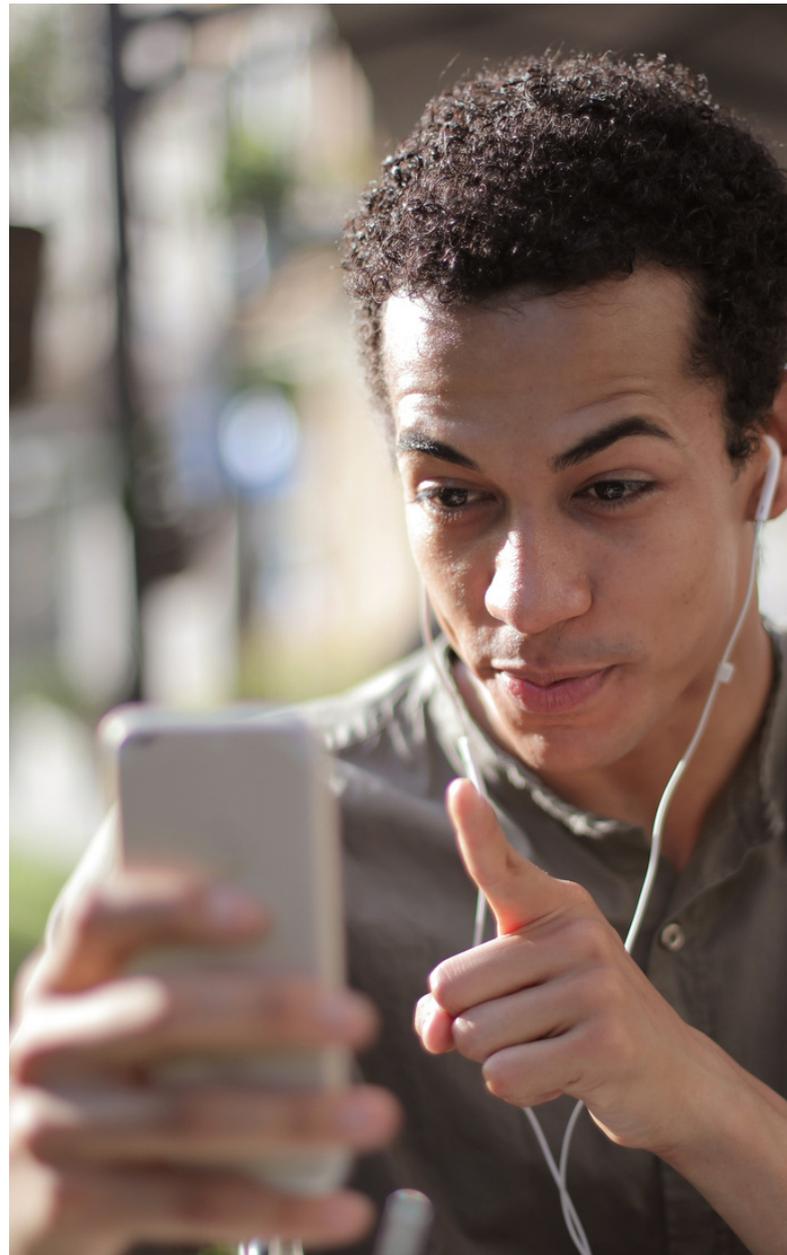
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IntrAbility net

Fundació Ramon Noguera

Spain

Service providers of sheltered employment, VET, guidance in open labor market, home assistance and residential care for people with intellectual disabilities and early care services for children with developmental disorder

Context and challenges targeted:

Until recently, globally societies had the belief that employees with intellectual disabilities were the group with the greatest difficulties in accessing products, services and information online. To the point that as an entity Fundació Ramon Noguera had two different internal communication channels. That is, depending on whether or not the person had intellectual disabilities, the paper or a digital channel was used.

At that time, Fundació Ramon Noguera was convinced that we integrated everyone by adapting the channel to use according to the profile of the person. Fundació Ramon Noguera (Grup FRN) did not realize that what we were generating was discrimination, apart from being indirectly transmitting a message that people with disabilities really could not access new technologies. Thus, Grup FRN not only accepted this barrier but expressed it without being aware of it.

With the incorporation of smartphones into everyday life we realised that most people with

intellectual disabilities connected and used mobile phones or tablets without difficulties.

From there Grup FRN saw the immediate need to create a tool that would allow us to achieve multiple objectives:

- Break with the communication barriers created.
- Unify communication channels of the entity.
- Access to all information in an easier, more comfortable and effective way.
- Provide all workers with indifference to their disability, a communication channel, and management of its development in the labour area in a unique and bidirectional way. Equal opportunities to access a technological world in order to contribute to a good personal development of people with special difficulties.
- Break with the digital divide.

Description of the digital solutions:

The corporate intranet tool was used with the following functionalities:

- Information about:
 - Organization and organization chart of the entity
 - Regulatory operating policies
 - Welcome manual
- Internal database:
 - Information and job contact details of the employees
 - Contact and management details of the different work centres of the entity
- Identification and dissemination of the individual work objectives of each person with half-yearly evaluation.



- Signing of the working day.
- Consultation and access to the work calendar.
- Application for paid and unpaid leave.
- Communication and general information as well as specific information of the job position.
- Access to news of interest of the entity.
- Training actions
 - Training plan of the entity
 - Calendar of training offer with option for direct registration
 - Recruitment process and job opportunities
- Call management:
 - Notices and records of internal and external calls
- Reservation of vehicles and rooms
 - Requests to reserve rooms and/or vehicles
 - Usage records

The process was led by the Human Resources department, with the direct support of the ICT department and together with the guidance and employment service that supports people with intellectual disabilities:

- **Design phase:**

ICT and HR team identified the functional analysis of the tool.

- **Programming and testing phase:**

ICT programming and HR tests of the functionality of the application.

- **Review and analysis phase:**

Several profiles of workers with intellectual disabilities were selected, with different levels of

ICT competences, in order to validate the design of the intranet, at the level of functionality and easy reading.

- **Implementation phase:**

Enable a computer room equipped with 20 computers, in order to facilitate access to material resources and to the network to all those who did not have their own smartphone.

Enable a testing and training room to attend to all the necessary consultations and offer individual attention from 9 a.m. to 6 p.m.

Once these phases were consolidated, two groups of people were created by levels of competence in the field of new technologies.

- **Group A**

Were those people who had competences at the ICT level. This implementation consisted of:

- 2 two-hour training actions with the aim of presenting the tool and its functionalities at a general level.



- Individual guidance during a period of three months to be able to work all the functionalities, doubts, incidents, in a personalized way and adapted to each person according to their competences.

- **Group B**

People identified with little computer skills – It is currently in process.

Users' perspective: Outcomes and impact

The results can be defined both in:

- The organization:
 - Eliminate communication barriers
 - Communication channels unified
 - Information centralized
 - More agile communication
 - We have opted for easier language, focused on easy reading.
 - It has facilitated access to information to all employees of the entity.

- The person with intellectual disabilities:
 - The possibility of reading gives people enormous confidence, allowing them to expand their opinions and exercise control over their own lives.
 - Personal development.
 - Improve your self-esteem.
 - Improvement in the autonomy of labour management.
 - It has promoted equality towards diversity
- The families:
 - Access to the person's employment information.
 - Indirect support to the employee with intellectual disabilities.

Expected future developments

It should be said that we have not yet achieved total inclusion, since in some aspects people with intellectual disabilities face barriers to access some information due to lack of cognitive accessibility, and this is the great challenge that we have to overcome.

At the time of designing, creating or managing content, we must take into account people with intellectual disabilities, and ensure to include measures that favour this cognitive accessibility, following the concepts of easy reading and design for all, which tries to follow criteria in order to guarantee understanding for people with different abilities.

The main limitations we have encountered were:

- Complexity in the creation of content adapted to easy reading by the most technical professionals. It is complex for some profiles to create accessible texts, fulfilling guidelines of using simple and direct language, avoiding subordinate phrases and abstract concepts, making use of practical aspects, among others.
- There are no programs already designed and adapted to easy reading, focused on people with intellectual disabilities, therefore the difficulty and cost of creating this product, since it must be customized and that means many hours of programming of an IT technician.

It should be said that we still cannot finish evaluating all the results, since the implementation phase has not been completed and we plan to implement new functionalities:

- The Voice of the employee: enable a site in the intranet to give the employee the opportunity to evaluate the job coach and the quality of the support received.



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Operator Support System

Senzer Helmond

Netherlands

Senzer Helmond, in close cooperation with Kennisalliantie Inclusie & Technologie (KIT), TNO and Dorel (employer). They introduced the Operator Support System in order to enable people with a (cognitive) disability to assemble a relative complex product (child car seat MaxiCosi), where they before only executed very simple sub-tasks.

Context and challenges targeted:

Senzer has been working for manufacturer Dorel for many years, and more than 200 people have been working on the assembly of these car seats. On the one hand there is the risk that Dorel could decide to stop working with Senzer as there can be cheaper locations elsewhere. On the other hand, Senzer is confronted with people retiring where new people arriving have more serious disabilities. Senzer thinks it is important that these people can still contribute and even better: people should feel empowered and build self confidence if they are able to assemble more complex products. It meant that Senzer was looking for solutions for the problem how to ensure and continue a strong partnership with Dorel, as it is both in the interest of the people with disabilities to have a serious job and in the interest of Senzer, as Dorel provides a large number of job.

From a KIT perspective, we were very interested to find a solution on how persons with stronger

disabilities could still meet the requirements of a commercial employer. While at the same time Senzer was aware of the fact that Dorel emphasizes a high level of quality of production.

Description of the digital solutions:

Senzer has implemented an Operator Support System from Belgian supplier Arkite. The technology consists of a beamer that is beaming instructions on the crafting table, step by step. Due to sensors (Kinect system), the steps are followed, so that after completing step 1, the next step is projected automatically. Enabling people to assemble a complex product after very limited training. y

The project has been very successful. For Dorel, it led to a high stable quality, regardless of the persons at the crafting table. The time required for instruction decreased, and the system also allowed for training people.

Users' perspective: Outcomes and impact

It turned out that it has led to more self confidence among participants. They were positive regarding the straight forward instruction by the beamer. It also helped them to concentrate on the job. And it has led to broader employability, as the system also allows for other products to assemble, and the people know how to work with it. Another positive effect is that people appreciated the fact that they do not need to ask a foreman to assist that often.

Expected future developments

There is a lot of further potential with applying this technology. The next step is to make the system adaptive. It means that you can use the system in diagnosis phase – you can find out how fast someone could learn and the person’s capacities. By making it adaptive, the system can leave out some part of the steps, so that the person involved can act more autonomously and possibly work without guidance in the near future. Another possibility is to completely switch to visual projections, so that migrants can integrate in the workforce, while learning the language on the job. All these aspects contribute to employability of people. And for Senzer it means, they can acquire new orders, which were too complex in the past.

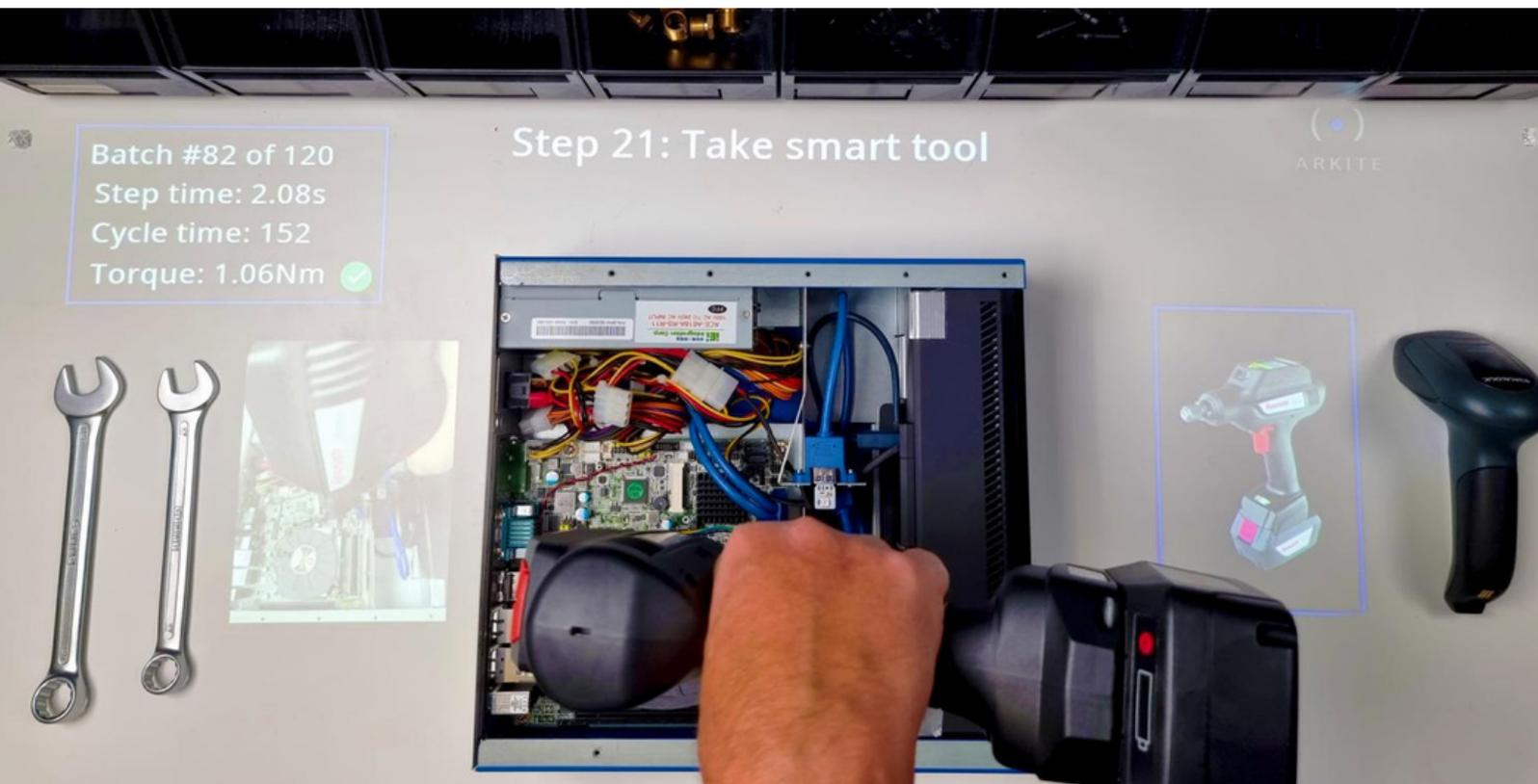
Senzer is currently in contact with other employers to find out whether people with disabilities will be able to start working there, in combination with the operator support system.

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EASPD Lighthouse Network

6 promising practices on the use of digitalisation and technology to support persons with disabilities at work and in vocational education trainings



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