



D3.1 End-user requirements and co-creation report

*“Transforming businesses into Deaf-friendly environments:
Dual-curricula and a dedicated hiring pool (D’DRIVEN)”*

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**ABBREVIATIONS**

D'Driven	Transforming businesses into Deaf-friendly environments: Dual-curricula and a dedicated hiring pool (D'DRIVEN)
DHH	Deaf and Hard of Hearing
DEU	Universidad de la Iglesia de Deusto Entida Religiosa (in Spanish), translated to English as University of the Church of Deusto Religious Entity
IEEN to	Idryma Ergodotisis Ekpedefsis Neoleas (IEEN) (in Greek), translated English as Youth Development Employment Foundation
USAK	Uşak Halk Eğitimi Merkezi Usak ve Akşam Sanat Okulu (ASO) (in Turkish), translated to English as Uşak Public Education Center and Evening Art School
ANPEDA	Asociatia Nationala a Profesorilor pentru Elevi cu Deficiente de Auz Virgil Florea (in Romanian), translated to English as National Association of Teachers for Students with Hearing Impairments Virgil Florea
EIT	Enjoy Italy Di Alessandro Gariano (in Italian), translated to English as Enjoy Italy by Alessandro Gariano
CKT	CKT Business Consulting Ltd

Participating Countries: Spain, Cyprus, Turkey, Romania, Italy



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I. INTRODUCTION:

The D'Driven project aims to fill a significant gap in modern society by facilitating the inclusion of Deaf and Hard of Hearing (DHH) people in the workplace. In this context, it aims to address both DHH people and employers by understanding and bridging both sides into a fruitful collaboration.

Additionally, with understanding the needs of modern workers, the creation of the D'Driven allows participants (employers and their staff) to get educated on a work protocol at their own pace and time.

Deaf and hard of hearing (DHH) people are individuals who have varying degrees of hearing loss, which can impact their ability to perceive and understand sounds. This can range from mild to profound hearing loss. Deaf and hard of hearing people often face challenges in communication and accessing auditory information, but many have developed strategies and use technologies to overcome these challenges and participate fully in society (WHO, 2021).

Deaf individuals typically have significant hearing loss, and their primary mode of communication might be sign language or a combination of sign language and spoken language, depending on their background and preferences. On the other hand, hard of hearing individuals have varying levels of hearing loss and may use a range of communication methods, including spoken language, lip-reading, hearing aids, cochlear implants, and other assistive technologies (NIDCD, 2021).

It's important to note that there is a diverse range of identities and experiences within the DHH community, and individuals' preferences for communication methods and identity terms can vary widely. Some individuals may identify strongly with the Deaf community and culture, while others may consider themselves more aligned with the hard of hearing experience or may choose different labels altogether.

One of the most impactful aspects of the EU legislation is the protection of the rights of people with disabilities in the workplace: employers are required to provide reasonable accommodation and they cannot discriminate against anyone with disabilities.

Accessibility can enrich a company's working environment and also, can result in higher job satisfaction, community recognition and increase in revenues. Still, even though inclusive environments are a pillar under the EU directives, most workplaces are not aware of the needs of deaf individuals and neither can accommodate them. DHH employees experience peculiar challenges in their workplaces, especially under hearing supervisors.

DHH people around the world encounter discrimination at different stages and levels of their job: application, getting hired, getting accommodations and staying employed while only a very small percentage of them is getting hired in high-level positions (Dammeyer et al, 2019). Therefore one of the aims of the D'Driven Project is to train the employers on how to train

their employees and transform their organization into an inclusive and deaf-friendly environment and to train deaf individuals on how to create their own CV and promote their skills. To reach these aims 2 training programs will be created in WP3 for both employers and DHH people.

II. PROCEDURE

2.1. Participants

The demographic features of the participants were presented in Table1 and Table 2:

Table1: The demographic Features of DHH Participants

Variable		N	%
Gender	Female	27	54
	Male	22	44
	I do not prefer to answer	1	2
Employment Status	Employed	29	58
	Unemployed	21	42
Educational Level	No answer	1	2
	Primary School	1	2
	Secondary School	4	8
	High School	21	42
	University	10	20
	Professional school	11	22

The first column of the table lists the variables that were measured, including gender, employment status, and educational level. The second column shows the number of participants who provided data for each variable.

The third and fourth columns show the number and percentage of participants who identified as female or male, respectively. For example, 27 participants (54%) identified as female, while 22 participants (44%) identified as male.



The fifth and sixth columns show the number and percentage of participants who identified as employed or unemployed, respectively. For example, 29 participants (58%) identified as employed, while 21 participants (42%) identified as unemployed.

The seventh through tenth columns show the number and percentage of participants who identified as having a certain level of education, ranging from no answer to professional school. For example, 8 participants (16%) identified as having a secondary school education, while 11 participants (22%) identified as having a professional school education.

Table2: The demographic Features of Employers

Variable	N	%
Gender	Female	24
	Male	18
Educational Level	Primary School	0
	Secondary School	0
	High School	15
	University	27

2.2. Data Collection

In order to collect the data, a semi-structured interview form was created (please see Appendix A and Appendix B). The first form was created to gather data from DHH individuals. The form includes 4 topics and some questions that were used during focus groups. The second form was created to gather data from employers. The data were gathered from DHH people by organizing a focus group. As some questions were similar we didn't ask all questions. The answers of the questions were taken as notes because the participants didn't want to be recorded. Data were gathered from employers by a Google form.

III. FINDINGS

3.1 DHH Individuals' Results

According to the answers of DHH individuals think;

Stereotypes: A common theme across all responses is that people often hold stereotypes against Deaf individuals. Some of the stereotypes mentioned include seeing Deaf people as lonely, sad, and in need of pity, assuming that communication challenges are insurmountable, and believing that Deaf individuals have intellectual disabilities.

Awareness of Capabilities: Many Deaf individuals feel that their employers and colleagues are not fully aware of their capabilities. This lack of awareness can lead to difficulties in the workplace and misunderstandings.

Communication Challenges: Deaf individuals face various communication challenges at work. These challenges include a lack of knowledge of sign language or visual communication methods among colleagues, a shortage of accommodations like sign language interpreters, and difficulties in understanding written communication. In the work environment, participants encounter challenges related to communication and accessibility. They believe that communication with employers and colleagues can be improved through better knowledge of Deaf culture and more effective communication methods.

Employment and Career Impact: Hearing levels have a significant impact on job opportunities and career paths. Some Deaf individuals find it challenging to secure employment due to communication barriers and biases, while others report feeling isolated or having different job assignments than desired.

Equal Job Opportunities: Deaf individuals have mixed opinions about whether they have equal job opportunities. Some believe that they don't have equal chances, while others are more optimistic. Regarding job opportunities, Deaf individuals face obstacles due to prejudices, a lack of awareness about their capabilities, and difficulties in communication during job interviews.

Professional Development: Participants expressed a desire to improve various skills, including written communication, digital skills, problem-solving, teamwork, and specific industry knowledge. Professional development is a concern for Deaf individuals. While they have opportunities to learn on the job and seek information online, there is a desire for more courses in sign language and other methods to enhance their skills and qualifications.

Cultural and Social Factors: Deaf individuals believe that a curriculum for teaching new skills should include sign language, visual learning, an inclusive environment, diverse perspectives, Deaf role models, and feedback.

Teaching Methods: Deaf individuals prefer learning through visual aids, written information, sign language videos, and online resources. They also appreciate collaboration with peers and mentors who understand their communication methods.

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Accessible Work Environment: Deaf individuals face challenges in accessing information and communication in the workplace. They suggest improvements like having sign language interpreters, educating hearing colleagues about Deaf culture, and providing more visual aids.

Overall, the findings across all sets highlight the importance of addressing stereotypes, improving communication, increasing awareness of Deaf culture, and enhancing job opportunities and workplace accessibility for Deaf individuals. Additionally, professional development opportunities and accessible learning methods are crucial for their personal and career growth.

3.2 Employers' Results

The findings from the various survey questions provide valuable insights into employers' perspectives on employing Deaf or Hard of Hearing (DHH) individuals. Here's a consolidated summary of the key findings and implications:

Finding 1: Awareness and Perceptions of DHH Individuals

Awareness of DHH Needs: The survey indicates that a significant portion of employers lack awareness of the specific needs of DHH employees. While some employers are proactive and knowledgeable, many remain uninformed.

Perceived Difficulty: Employers differ in their perceptions of employing DHH individuals, with almost half finding it difficult due to concerns about communication and perceived expenses. However, some express a willingness to hire based on merit.

Advantages and Disadvantages: The perceived advantages of hiring DHH employees include diversity, cultural awareness, work ethic, and unique skills. The disadvantages mostly revolve around communication barriers and associated costs.

Finding 2: Job Opportunities

Employer Preferences: Employers express mixed preferences for hiring DHH individuals. Some are open to hiring based on qualifications and performance, while others are hesitant due to concerns about skills, communication, and the lack of requests for such hires.

Equal Opportunities: The majority of employers believe in providing equal job opportunities for DHH individuals within their organizations.

Finding 3: Work Environment



Accessibility Challenges: The primary challenges identified by employers include inadequate communication, integration into the team, limited education and training, limited access to written information, and prejudices.

Practices for Solving Issues: Employers generally do not have specific practices to address accessibility issues for DHH individuals in the workplace.

Transforming Workplaces: Proposed solutions include training and educating hearing employees on DHH needs and sign language, ensuring sign language interpretation, fostering inclusive and cooperative environments, and changing organizational culture.

Finding 4: Professional Development

Professional Development: Recommendations for the professional development of DHH employees include training in sign language, adapting written information, increasing the number of sign language interpreters, focusing on adequate communication, conducting periodic training, team-building activities, and courses tailored to DHH individuals' needs.

Qualities and Skills: Employers believe that DHH workers should have qualities such as tolerance, flexibility, willingness to seek and receive clarifications, openness to new ideas, vocational education, sociability, and adaptability. They emphasize that DHH employees should possess the same skills as their hearing counterparts.

Overall, these findings highlight a range of perspectives among employers regarding DHH individuals in the workplace. While there are varying levels of awareness and willingness to employ DHH individuals, the overarching theme is the need for greater awareness, training, and accommodation to create inclusive, supportive, and accessible work environments for DHH employees. Addressing communication barriers, providing training and resources, and fostering a culture of inclusion are critical steps toward achieving this goal.

III. CONCLUSION

The collective responses from Deaf and Hard of Hearing (DHH) individuals shed light on a range of challenges and opportunities they encounter in their professional lives. While individual experiences and perspectives vary, some common themes emerge, pointing to the need for greater inclusivity and understanding in the workplace. Here is a summary of the key takeaways and a concluding reflection on the findings:

Challenging Stereotypes: DHH individuals overwhelmingly agree that society often holds stereotypes against them. These stereotypes include misconceptions about their emotional



well-being, communication abilities, and even their intellectual capacities. These stereotypes can lead to misconceptions and a lack of true understanding.

Awareness Gaps: Participants express concern that their employers and colleagues are often unaware of their full capabilities. This lack of awareness can lead to miscommunications and difficulties in the workplace. To create more inclusive work environments, there is a need for increased awareness and education about Deaf culture and communication methods.

Communication Hurdles: Communication challenges are a significant issue faced by DHH individuals in the workplace. This includes a lack of knowledge of sign language or other visual communication methods among colleagues. It also involves a shortage of accommodations like sign language interpreters, as well as difficulties in understanding written communication. Addressing these challenges can improve overall workplace dynamics.

Impact on Employment and Career: Hearing levels do affect job opportunities and career paths for many DHH individuals. The challenges they face, including communication barriers and biases, can lead to feelings of isolation and job assignments that may not align with their aspirations.

Equal Job Opportunities: DHH individuals have mixed perceptions about having equal job opportunities. Some feel there is a lack of equality, while others remain optimistic. The obstacles they face include prejudices, limited awareness about their capabilities, and challenges during job interviews. Achieving equal job opportunities will require ongoing efforts to dispel biases and provide accessible support.

Professional Development: Many participants express a desire to enhance their skills and qualifications. These skills encompass written communication, digital proficiency, problem-solving, teamwork, and industry-specific knowledge. Providing more opportunities for professional development, such as courses in sign language and other accessible methods, can empower DHH individuals to reach their full potential.

Cultural and Social Factors: Participants believe that inclusive education and training curricula should consider Deaf culture, visual learning, diverse perspectives, and the importance of Deaf role models. This approach can create a more inclusive and supportive learning environment.

Teaching Methods: DHH individuals have clear preferences for learning, which include visual aids, written information, sign language videos, and online resources. Collaboration with peers and mentors who understand their communication methods is highly valued.

Accessible Work Environment: Access to information and effective communication in the workplace remains a significant challenge. Deaf individuals suggest improvements like sign language interpreters, greater education for hearing colleagues, and the availability of more visual aids to ensure a more accessible work environment.



In conclusion, the responses from DHH individuals emphasize the critical need for greater inclusivity, awareness, and effective communication in workplaces. The workplace should be a space where individuals of all abilities can thrive, access opportunities, and contribute their unique skills. By addressing stereotypes, providing accommodations, and offering accessible professional development opportunities, we can help create more equitable, inclusive, and supportive work environments for Deaf and Hard of Hearing individuals. These insights highlight the importance of continuous efforts to promote understanding and equal opportunities for all members of the workforce.

When it comes to employers' opinions The survey findings provide valuable insights into employers' perceptions and attitudes toward employing Deaf or Hard of Hearing (DHH) individuals in the workplace. Several key themes emerge from these findings, each with significant implications for creating a more inclusive and supportive work environment:

Awareness and Perceptions of DHH Individuals:

The survey indicates a notable gap in awareness among employers regarding the specific needs and challenges faced by DHH individuals. While some employers are well-informed and proactive in addressing these needs, many others lack the necessary knowledge to create accommodating work environments.

Employers' perceptions of employing DHH individuals are mixed. While some express a willingness to hire based on qualifications and merit, others harbor concerns related to communication barriers and associated expenses.

Job Opportunities:

Employers have varying preferences when it comes to hiring DHH individuals. Some are open to providing equal job opportunities, emphasizing qualifications and performance as the key criteria for employment. However, others express hesitations due to concerns about skills, communication, and a perceived lack of demand for DHH hires.

Work Environment:

Accessibility challenges were identified as a significant issue, with inadequate communication being the primary concern. Employers also pointed out challenges in integrating DHH employees into the team, offering suitable education and training, providing access to written information, and addressing prevailing prejudices.

The survey reveals that employers, for the most part, do not have established practices to address these accessibility challenges. However, employers recognize the need for transformative actions to create more inclusive and supportive workplaces. Suggestions include training and educating hearing employees on DHH needs and sign language, ensuring sign language interpretation, fostering an inclusive and cooperative work environment, and changing organizational culture to be more inclusive.

Professional Development:

Recommendations for professional development of DHH employees include targeted training in sign language, adapting written information for accessibility, increasing the number of sign language interpreters, focusing on adequate communication, conducting periodic training

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sessions, organizing team-building activities, and offering courses tailored to the specific needs of DHH employees.

Employers believe that DHH employees should possess qualities such as tolerance, flexibility, willingness to seek and receive clarifications, openness to new ideas, vocational education, sociability, and adaptability. They emphasize that DHH employees should possess the same skills as their hearing counterparts, further reinforcing the importance of equal opportunities.

In conclusion, these survey findings underscore the need for greater awareness, training, and accommodation to create inclusive, supportive, and accessible workplaces for DHH individuals. Addressing communication barriers, providing training and resources, and fostering a culture of inclusion emerge as critical steps toward achieving this goal. Employers who recognize the unique skills and contributions of DHH individuals and are proactive in addressing their needs stand to benefit from a more diverse and talented workforce.

Ultimately, it is through these collective efforts that workplaces can become truly inclusive, ensuring equal opportunities for all employees, regardless of their hearing abilities.



APPENDICES





Appendix A: Semi-Structured Interview Form for DHH People

Topic 1: Awareness

- 1- Do you think people have some stereotypes against deaf people?
- 2- Do you think your employer and colleagues are aware of your capabilities?
- 3- Do you sometimes feel isolated or lonely at your workplace?
- 4- Do you have problems with communication? If yes, what kind of problems do you have?

Topic 2: Job Opportunities

- 5- Do you currently work? How has your hearing level affected your job or career?
- 6- What challenges have you encountered when trying to find a job?
- 7- Do you believe that you have equal job opportunities?
- 8- Do you think you have enough skills for better job opportunities? If not, what are the lacks?
- 9- There is some progress promoting inclusivity and equal opportunities for individuals with disabilities, including deaf individuals. Do you think they are enough? Why? Why not?
- 10- What are the obstacles you encounter for employment?

Topic 3: Work Environment

- 11- Do you have any accessibility problems in your work environment?
 - 12- Do you think you can easily communicate with your employers and colleagues?
 - 13- What are the problems you have in communicating with your employers and colleagues?
 - 14- Do you think you can easily reach the information needed for your work?
 - 15- What could be done to make your work easier?
-
- 1- Can you describe any specific challenges you have faced in your workplace?
 - 2- Have you encountered any stereotypes about deaf individuals in the workplace? If so, how have you addressed them?
 - 3- How important do you believe it is for deaf people to be able to demonstrate their other abilities and skills in the workplace?



Topic 4: Professional Development- Training

- 16- Do you think there are enough opportunities for your professional development?
- 17- How do you prefer to learn new skills? Are there any specific teaching methods or formats that you find more effective?
- 18- What should be done for your better learning?
- 19- What skills and qualifications would you like to improve?
- 20- What are some specific skills or abilities that you believe are important for deaf individuals to develop?
- 21- Do you know how to improve your skills and qualifications?

- 22- Are there any cultural or social factors that you think should be considered when designing a curriculum for teaching other skills to deaf individuals?
- 23- What are your expectations or hopes for a curriculum focused on teaching and enhancing other skills for deaf individuals?
- 24- Do you have any suggestions or ideas for incorporating technology or assistive devices into the curriculum to enhance the learning experience?
- 25- What types of activities or exercises do you think would be helpful in a curriculum designed to teach new skills and reinforce those already existing for deaf individuals?

Appendix B: Semi-Structured Interview Form for Employers

Topic 1: Awareness

- 1- Do you have any idea about deaf people's needs?
- 2- Do you think employing a deaf people is difficult?
- 3- What are the advantages and disadvantages of employing a deaf individual?
- 4- Have you received any feedback or suggestions from deaf employees or organizations focused on deaf inclusion? If yes, how have you acted?
- 5- What proactive measures do you believe employers should take to create an inclusive and supportive environment for deaf individuals in the workplace?
- 6- Are you familiar with the legal requirements or obligations related to accommodating deaf individuals in the workplace?

Topic 2: Job Opportunities

- 1- Would you prefer employing a deaf individual? Why/Why not?
- 2- Do you have any bias against deaf individuals? If yes, what are they?
- 3- Do you think in your organization deaf individuals have equal opportunities (promotion, salary etc.) with the other employees?
- 4- Have you ever hired or worked with deaf individuals in your organization? If yes, what has been your experience?

Topic 3: Work Environment

- 1- What are the accessibility problems the deaf individuals may encounter in the workplace?
- 2- Do you have any practices in your workplace to solve these problems?
- 3- What can be done to transform the workplaces into (more) deaf-friendly environments?
- 4- 1- Have you faced any concerns or hesitations from other employees regarding working with deaf individuals? How have you addressed those concerns?



- 5- What challenges have you encountered when hiring deaf individuals in the workplace?

Topic 4: Professional Development

- 1- What can be done for the professional development of deaf individuals?
- 2- In what way do you support deaf employees' development?
- 3- What qualities and skills should your deaf workers have?
- 4- Have you provided any specific training or awareness programs to your staff regarding deaf-related issues and inclusive practices?
- 5- Are there any areas or aspects of your organization where you feel you could improve in terms of supporting and accommodating deaf employees?

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