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GREEN ASC VET PROJECT

KA220-VET - COOPERATION PARTNERSHIPS IN VOCATIONAL EDUCATION AND TRAINING

WP2

Final Report: Identification of the profile of autistic students and trainees

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Partners

FPDA, STRUKA, IOS, LVE, Virsabi, Autism-Europe, Innoversa-Factory

Introduction

Please enter the dates on which the focus group was conducted in your country, the criteria for recruiting participants, whether there were any absences, any compensation, how long the groups lasted, and a summary of relevant sociodemographic characteristics (e.g., number of participants, age, gender, academic qualifications, work experience, field, ...).

This report presents the findings from the activities carried out in the context of WP2 of the Green ASC VET project, which aimed to identify the profiles of autistic students and trainees in VET contexts across several European countries. Data was collected via two online surveys (one for autistic individuals and one for family members) and interviews (both in-person and online) with autistic people and family members in all partner countries of the Green ASC VET project (namely: Portugal, Croatia, Germany, Belgium, Hungary and Denmark). The aim of these activities was to obtain more in-depth information about the needs, skills and interests of autistic students and trainees, and thus to generally identify their profile in VET contexts.

Portugal participants: 68

Surveys: 58 respondents (21 autistic individuals, 37 family members)

Interviews: 10 individuals (6 autistic individuals, 4 family members)

Autistic individuals: 13 females, 7 males, 1 non-binary; average age: 29.8 (range: 16-50)

Family members: Mostly mothers (83.8%); average age: 45

Autistic individuals' education: 23.8% had a Master's degree, 23.8% had a Bachelor's degree.

Family members education: 40.5% had a Bachelor's degree, 21.6% completed 12th grade, and 13.5% had a Master's degree.

Geographic distribution included both mainland and island regions (e.g., Lisbon, Porto, Azores).

Croatia participants: 56

Surveys: 45 respondents (21 autistic individuals, 24 family members)

Interviews: 11 individuals (3 autistic, 8 family members)

Autistic individuals: 13 females, 8 males; average age: 23.11 (range: 11-54)

Family members: Mostly mothers (58.3%); average age: 47

Autistic individuals' education: 5.6% had a Master's degree, 5.6% had a Bachelor's degree, 22% completed secondary school, and 44% completed primary school.



Family members education: 4.5% had a Master's, 9.1% had a Bachelor's, and 13.6% had completed secondary school.

Denmark participants: 65

Surveys: 55 respondents (30 autistic individuals, 25 family members)

Interviews: 10 individuals (6 autistic, 4 family members)

Autistic individuals: 26 females, 4 males; median age: 27, average age: 31.44 (range: 17-66)

Family members: Mostly mothers (21 mothers, 1 stepmother, 2 fathers); median age: 49 (range: 23-65)

Autistic individuals' education: 1 PhD, 1 Master's degree, 2 Bachelor's degrees, with 20% indicating primary school as their highest level of education.

Family members education: 8% had a PhD, 36% had a Master's, and 24% had a Bachelor's.

Hungary participants: 37

Surveys: 27 respondents (autistic individuals and family members)

Interviews: 10 individuals (mix of family members and autistic individuals)

Autistic individuals: 1 non-binary, 8 male, 18 female; ages ranged from 16 to 55.

Germany participants: 30

Surveys: 20 respondents (12 male, 8 female)

Interviews: 10 individuals (mix of family members and autistic individuals)

Belgium participants: 21

Participants from different countries, including France, Belgium, Spain, with French-speaking respondents dominating.

Surveys: 14 respondents (9 autistic individuals, 8 family members)

Interviews: 7 individuals (5 autistic, 4 family members)

Autistic individuals: 5 females, 4 males; average age: 38.7 (range: 30-53)

Family members: 3 fathers, 4 mothers, 1 grandfather; average age: 53.2

Autistic individuals' education: 3 had a Master's, 1 had a Bachelor's, 1 had a professional degree, 1 had a Doctoral degree, and 3 had no degree.

The **total number of participants** across the six countries was **277**. This number includes both autistic individuals and family members, gathered through online surveys and interviews.



- **Interviews:** A total of 58 interviews were conducted with family members and autistic individuals.
- **Questionnaires:** A total of 219 people answered to the questionnaires, which targeted autistic individuals and family members. Most questionnaires were filled out online, ensuring broad geographic coverage in each partner country.

Sociodemographics of Participants

The participants involved in both activities spanned a diverse range of ages, genders, and educational backgrounds. Key data include:

- **Gender:** Autistic Individuals: 108 females (68%); 63 males (29.6%); 2 non-binary (1.3%); Family Members: 82 females (75.4%); 27 males (24.6%).
- **Age:** Autistic individuals average age across all countries is approximately 28.2 years, with the age range spanning from 11 to 66 years. Notably, many participants were diagnosed later in life, with a median diagnosis age of 25 years. Family members average age is around 45 years, with a range from 23 to 65 years.
- **Educational Qualifications:** Many autistic individuals reported lower levels of academic achievement, with a considerable percentage having completed only primary or secondary education. Some had pursued higher education but generally lacked formal qualifications. A higher proportion of family members had completed higher education, with some holding master's degrees, indicating a more educated demographic.

Results

Please summarise the main answers to each question. The report will be more informative if you add quotes from what the participants said, giving examples that demonstrate their opinions and experiences. If you use quotes from participants, please make sure to use “ ” and *italics*.

If a topic has arisen that was not well planned by the researchers or by the participants in the groups, the justification of the importance of this topic should be added.

Introductory Questions:

The analysis indicates that the age of **autism diagnosis** among participants varies significantly. While many individuals receive diagnoses between **3 and 12 years**, there is a notable subset diagnosed later in life, with some individuals diagnosed as late as **44 years**. The average age of diagnosis was approximately **19 years old**. Furthermore, a substantial portion of participants, approximately **62-66%**, **reported the presence of co-occurring conditions**. The most frequently cited comorbidities include: Attention Deficit Hyperactivity



Disorder (ADHD), Anxiety Disorders, Intellectual Disabilities, and Obsessive-Compulsive Disorder (OCD).

The provision of therapeutic support for autistic individuals varies considerably.

Approximately **52-78%** of participants indicated that they are **currently engaged in some form of therapy related to autism**, predominantly comprising psychological and educational interventions. A significant challenge reported pertains to social interactions, with **67.2%** of participants acknowledging difficulties in this area. Notably, **94% of participants indicated that social interactions pose challenges**, with family members universally agreeing that forming new friendships is difficult.

The **interests and hobbies of autistic individuals** are obviously extremely diverse, reflecting a wide array of personal inclinations and talents. Commonly expressed interests include: constructing and coloring miniatures; observing farm animals; engaging in music, acting, and film; Information Technology (IT) and video gaming; participation in sports, cooking, and painting; exploration of languages and script creation.

Participants identified several **strengths** that characterize their capabilities: sincerity, honesty, and openness; logical reasoning and cognitive agility; exceptional memory capacity and visual acuity; consistency in adhering to routines and punctuality; extensive knowledge of factual information and events. Despite these strengths, approximately **41-50%** of participants reported that **their abilities are not effectively used in professional or educational contexts**.

The findings reveal alarmingly **high unemployment rates among autistic individuals**, with **76-87%** of respondents indicating they are not engaged in paid employment. This high unemployment rate aligns with findings from various studies across different countries, highlighting systemic barriers that autistic individuals face in gaining and maintaining employment. Many participants expressed that job openings suitable for their skill sets are scarce. There is often a lack of awareness among employers regarding the abilities and strengths of autistic individuals. Some of them reported a reluctance to seek employment due to previous negative experiences, such as workplace bullying or inadequate support from supervisors. Plus, one participant noted that personal relationships are crucial to fostering a positive work environment, stating, *"Good personal relations, if I 'click with' a person, are vital to wanting to do anything at all"*. Autistic individuals may require specific accommodations to thrive in the workplace, such as structured tasks, clear communication, and a predictable environment. However, employers often lack the understanding or resources to provide these necessary supports.

Participants reported a **spectrum of experiences within educational environments**, with some individuals feeling adequately supported while others expressed notable frustration. Approximately 64% of participants acknowledged difficulties with social interactions, which can be exacerbated in traditional educational settings. Some individuals found their

educational experiences beneficial. For instance, one participant commented, *“I am in a vocational training center and have never felt more comfortable. It seems to be a perfect fit”*. This could indicate that specialized programs can provide an environment where autistic students feel understood and supported. On other hand, a recurring theme among participants was the **frustration with educational programs that failed to adapt to their unique needs**. For example, one participant expressed dissatisfaction, stating, *“Despite being labeled as autism-friendly, ignorance and the refusal to adapt have made the program more difficult than a standard one might have been”*. Such experiences can lead to a lack of engagement and increased anxiety within the educational context. Thus, the need for tailored educational strategies is critical. Participants emphasized the importance of understanding and accommodating their specific needs within the classroom, which can significantly enhance their learning experiences and outcomes.

Key Questions:

Regarding the **educational enrollment status**, the data collected from autistic participants indicated that: 36.8% reported not being enrolled in any educational program; 26.3% were enrolled in regular education programs; 26.3% were in special educational programs; 5.3% were engaged in vocational training programs. Responses from family members revealed slightly different enrollment figures: 25% reported that their family member was not enrolled in any educational program; 29.2% indicated enrollment in regular education programs; 16.7% were in special educational programs; and 12.5% were in vocational training programs. These results reveal a significant portion of individuals who are either not enrolled in any educational programs or are limited to special education. The relatively small number of individuals involved in regular or vocational training underscores the educational gaps that exist for many autistic individuals, potentially affecting their career trajectories.

Autistic participants and their families identified several **key aspects of educational and vocational training programs that were most beneficial** to them:

1. Practical components and internships: One participant highlighted the importance of hands-on experience: *“Learning by doing was essential for me. Internships were a crucial part of my education because they allowed me to develop real-world skills”*. Others emphasized that practical work-based experience provided confidence and allowed them to apply theoretical knowledge to real situations.
2. Distance learning: Online learning emerged as a significant benefit for many. As one participant noted, *“My son can watch videos multiple times and go back if he doesn’t understand something. The ability to revisit the material is so important for his learning”*. Another participant echoed this sentiment, stating, *“Online learning helped*

me because I could take my time and didn't have the pressure of being in a classroom setting".

3. Safe and quiet learning environments: Many participants highlighted the need for environments that minimize sensory distractions. One noted, *"I don't like being in groups because of social difficulties, so having a quiet, safe space where I could learn on my own was very helpful"*. Similarly, another participant stated, *"Being in a quiet room allowed me to focus without getting overwhelmed by noise or other distractions"*.
4. Structured and predictable learning: Clear and organized instructions were cited as important by multiple respondents. *"Having a structured class with clear instructions made a huge difference for me. I need to know exactly what's expected,"* one participant said. Another added, *"The structure of the course helped me stay on track. Audiovisual materials also helped me review and understand the content"*.
5. Development of social skills: Practical work environments provided opportunities to develop essential soft skills. One respondent mentioned, *"It was really important for me to learn how to navigate working with others, like service providers and colleagues. These skills are critical in my field"*.

Despite these benefits, autistic individuals face **significant challenges in educational and vocational settings**. Some of the most common difficulties mentioned include:

1. Socialization and communication: Autistic individuals often struggle with social integration. One participant stated, *"Finding friends and making connections was the hardest part. It's a long process, and it feels like everyone else finds it easier"*. Similarly, another noted, *"Communication with teachers was hard, especially in terms of deadlines and understanding what they wanted from me"*.
2. Public speaking and oral exams: Many participants highlighted the difficulty of oral presentations. One participant expressed, *"Public speaking was terrifying for me. Oral exams are really difficult because I can't express myself verbally as easily as others"*.
3. Time management and organization: Time management and staying organized posed challenges, particularly for those in regular education programs. One participant mentioned, *"The hardest thing for me was managing all the tasks and deadlines. Keeping everything organized felt overwhelming"*.
4. Traditional assessment methods: Traditional methods of evaluation, like written exams, were frequently mentioned as a challenge. One respondent explained, *"Written tests don't reflect my true abilities. I know the material, but I get anxious and struggle to show what I know in a formal test setting"*.

When asked about **preferred learning environments**, participants highlighted several approaches that worked best for them:

- 1) **Small group learning and peer teaching:** Many respondents emphasized the benefits of small, discussion-based group settings.



- 2) **Individualized learning and online education:** Some respondents preferred one-on-one or online learning environments. One participant noted, *“I thrive in individualized learning environments where the focus is on my specific needs”*. Online education also allowed for flexibility, with one participant stating, *“Online learning is helpful because I can go at my own pace and review the material as many times as I need to”*.
- 3) **Visual and audio materials:** Videos and other audiovisual materials were found to be particularly helpful. One respondent explained, *“Learning with videos was more engaging for me, and I found it easier to understand complex topics”*.
- 4) **Low-pressure, nature-based environments:** Several participants mentioned the benefits of learning in environments close to nature or settings that promoted relaxation. *“Learning close to nature helps me stay calm and focus better. It’s a much more comfortable environment for me,”* one participant said.

Around **35.7% of autistic participants expressed specific career goals or aspirations**, with family members similarly echoing hopes for their loved ones' vocational development.

Common goals included:

- Career aspirations: Many participants expressed a desire to find meaningful work. As one participant said, *“I want to find a job where I can use my skills and be respected for what I do”*.
- Educational goals: Others aimed to further their education, with goals like, *“I want to update my master’s degree and progress to a PhD”*.
- Independence and self-employment: One participant highlighted their ambition to be self-employed, stating, *“I want to start my own company and be independent”*.

To achieve these goals, both autistic individuals and their families emphasized **several key types of support**:

- **Personal assistance and environmental support:** Many respondents called for the need for personal assistants or coaches, particularly those with experience working with autistic individuals. This support seems to be crucial for navigating both educational and workplace environments. One participant specifically mentioned needing a life coach who understands autism to help them structure their studies. This highlights the need for professionals trained in autism-specific coaching and mentoring.
- **Emotional and environmental support from family:** Families play an essential role in providing emotional and practical support. The data shows that 100% of family members believe they provide emotional support, while 85% report that they advocate for accommodations and services. This reflects how integral the family unit is in helping autistic individuals achieve their educational and career goals. Quotes such as *“I defended and protected him, helping him to reflect on his behaviors and think logically,”* highlight the personal and strategic role that families play in supporting their loved ones' growth.



- **Flexibility and customized work/study environments:** Flexibility in the structure of work hours or study schedules was commonly mentioned. Many autistic participants struggle with rigid or traditional structures, so they benefit from environments that can adapt to their unique learning or working styles. This suggests that employers and educators should be more accommodating by offering flexible schedules or alternative paths for learning and work completion.

Family involvement was found to be crucial in the educational and vocational and professional success of autistic individuals. Family members provided support in various ways:

- **Emotional support:** 100% of family members reported providing emotional support, often encouraging autonomy and self-advocacy. One family member stated, *“I’ve always been there for my son to listen to him and help him vent about what he’s going through. Just being there helps him feel supported”*.
- **Collaboration with educators and employers:** Families also actively advocated for accommodations and accessibility in both educational and work environments, with 85% reporting they sought professional support and advocated for necessary adjustments. *“I’ve attended every meeting with his teachers to ensure they understand his needs and what accommodations will help him succeed,”* one family member said.
- **Establishing routines and strategies:** 79.2% of families helped establish routines and organization strategies to assist their loved ones in managing daily tasks. *“We created a schedule to help him stay organized. It was important to develop a routine that he could stick to,”* one family member shared.

The **aspirations** of autistic individuals and their families highlight a **strong desire for independence and meaningful engagement in society:**

Vocational and career goals: Around 35.7% of autistic individuals expressed clear vocational goals, including aspirations like *“Finding a professional job before turning 30”* or *“Getting a diploma in engineering”*. The family’s perspective closely mirrored these goals, with **65% of family members stating that meaningful employment was a top aspiration**. This shows that both individuals and their families place a high value on achieving career success and autonomy.

Skill development: The emphasis on developing specific job skills and improving self-confidence also emerged as key goals for many. **60% of family members highlighted the importance of developing specific professional skills for their autistic relatives**. This indicates a strong awareness of the need for skill-building, both in technical fields and in areas like social interaction and communication, which are critical in the workplace.



Both autistic individuals and their families pointed to **several strategies and supports necessary to achieve these goals:**

- 1) **Continued skill development and vocational training:** 73.7% of family members emphasized the importance of continued education and skill-building opportunities, whether through formal vocational training programs or other avenues. This indicates a recognition that lifelong learning is important for autistic individuals, especially as they navigate changing career landscapes.
- 2) **Collaboration with vocational rehabilitation services:** 78.9% of families believe that collaboration with vocational rehabilitation services is essential. These services could provide crucial job training, support, and job placement tailored to the needs of autistic individuals.
- 3) **Supportive workplace accommodations:** Around 68.4% of family members expressed the need for supportive workplace accommodations, indicating that workplaces often lack the necessary adjustments to help autistic individuals thrive. The inclusion of accommodations like sensory-friendly environments, flexible schedules, and social support systems could improve their workplace integration and job satisfaction.

Ending/Additional Questions:

The experiences and perspectives shared by individuals on the autism spectrum and their families highlight the significant need for tailored educational programs and support systems. Many autistic individuals express a desire for constant learning and personal assistance to help them navigate their educational paths and future careers. One participant stated, *"I would like to have an internship in computer service,"* underscoring the interest in practical experience that aligns with their skills and aspirations. However, there is a recognition that further education is often necessary, as another individual noted, *"I would like to further my education because I am not qualified for a specific job after finishing high school"*. Family members echo these sentiments, pointing out the current inadequacies in the support available for autistic individuals as they transition from primary to secondary education. One parent observed, *"At the moment, there are no programs that are individually adapted to each child after finishing primary school,"* emphasizing the limited auxiliary courses available, which can vary year to year and are rarely accessible to autistic individuals.

The experience of neurodivergence within families can be profound, as illustrated by one family's journey: *"Our whole family is neurodivergent: the middle son was first diagnosed in elementary school, then the mother, then the third son, and after many years the oldest sister (abroad)"*. The mother has dedicated herself to understanding autism and its associated challenges, attending workshops and seminars in neighboring Italy due to the lack of local



resources in Croatia. There is a strong call for more parent-focused education programs, with one parent advocating for *"seminars and workshops not once a year, but 10 times a year in the different regions of Croatia,"* suggesting that a comprehensive EU-funded program would significantly benefit families. Additionally, there is a pressing need for a coherent national strategy for the education and inclusion of all individuals with special needs in Croatia. Parents are keen to ensure that their children receive a quality education in environments that are *"stimulating, encouraging, and empathetic"*. As one parent put it, *"We do not want to single him out in special groups with people who have difficulties, because I believe and we have convinced him that he achieves the best results when he is in an environment that motivates him to be like the others"*.

Ultimately, the role of family support is paramount. One parent reflected, *"I think that everything is in the family; we, the parents, provide support. We are an example of how to overcome obstacles"*. Recognizing symptoms of anxiety and managing stress within the family can make a significant difference in the well-being and success of autistic individuals. This collection of insights illustrates the ongoing challenges faced by those on the autism spectrum and their families, while also highlighting their hopes for improved educational and social support systems that truly meet their needs.

Conclusions:

Provide your general reflections based on the results presented and previous literature you are aware of.

The data from this study highlights the multifaceted challenges and aspirations of autistic individuals in their educational and vocational journeys. Despite a significant portion of participants not currently enrolled in any educational program (36.8%), there is a clear desire for further education and employment, with 35.7% of autistic individuals expressing specific goals such as earning vocational diplomas, progressing academically, and securing meaningful employment. Family members play a pivotal role in these processes, not only by providing emotional support but also by actively advocating for necessary accommodations and collaborating with educators and employers to ensure an inclusive learning and working environment.

A key trend that emerges is the need for flexible and customized learning environments. Many autistic individuals prefer small groups, online learning, and visual or video-based materials, reflecting their unique learning preferences and the need to manage sensory sensitivities. Traditional, rigid educational settings often present challenges, particularly in terms of communication with teachers and meeting deadlines, which can exacerbate feelings of anxiety and social isolation. As one participant stated, *"Small group discussion-based*



environments work best for me... I can excel". These insights underline the importance of adapting educational structures to better align with the learning styles of autistic students.

The data also underscores the importance of lifelong skill development, both for personal growth and professional success. Many participants indicated a desire for continuous learning to build competencies in their chosen fields. This is particularly evident in the vocational aspirations of autistic individuals, such as *"learning everything about computers"* or *"training for a job"*. However, these goals can only be achieved if adequate support systems are in place. Participants emphasized the need for personal assistance, such as life coaches/personal assistances or therapists experienced in autism, as well as workplace accommodations like flexible hours and clear, structured instructions. These supports are essential for overcoming the communication barriers, sensory sensitivities, and social challenges that autistic individuals frequently encounter in both educational and professional settings.

Family members, who overwhelmingly provide emotional and practical support, also highlight the importance of fostering independence. They noted that encouraging autonomy, advocating for accommodations, and connecting with professional support services were crucial in helping their relatives navigate education and employment. As one family member remarked, *"Defending and protecting him, training, advising, and explaining...proved great practices in hindsight as he became a very self-reflective and yet focused adult"*. This demonstrates how proactive, engaged family support can help autistic individuals develop not only academically and professionally but also personally, building self-confidence and self-advocacy skills that are vital for long-term success.

Moreover, the family's role extends to ensuring continuous skill development and promoting inclusive hiring practices, with 78.9% of family members advocating for vocational rehabilitation services and 68.4% emphasizing the need for workplace accommodations. This advocacy is essential to achieving the goals most frequently cited by families: meaningful employment, the development of specific job skills, and the creation of supportive work environments. The shared aspirations of both autistic individuals and their families reflect a strong commitment to achieving independence and meaningful engagement in society, particularly through employment. Yet, as participants pointed out, *"It is necessary that the environment accepts me as I am,"* highlighting the critical need for inclusive workplaces that accommodate neurodiverse individuals.

The data paints a comprehensive picture of the educational and vocational experiences of individuals on the autism spectrum, marked by challenges such as social integration, communication difficulties, and the need for individualized accommodations. However, with the right support, including personal assistance, family involvement, and professional services, autistic individuals can achieve meaningful careers and further their education. Families play a crucial role in this journey, advocating for their loved ones and providing the emotional and practical support needed for success. There remains a strong call for more



inclusive educational and vocational programs that cater to the unique needs of autistic individuals, allowing them to pursue their goals and reach their full potential.

The findings underscore the pressing need for systemic changes within both employment and educational contexts to better support autistic individuals. By addressing barriers to employment, enhancing understanding among educators and employers, and fostering supportive environments, the unique strengths and capabilities of autistic individuals can be better utilized, ultimately improving their quality of life and integration into society.

In summary, while autistic individuals and their families face significant challenges in education and employment, the data reveals a clear path forward: continuous education, individualized support, and inclusive environments are key to unlocking their potential.

Addressing social integration difficulties, communication barriers, and sensory sensitivities will require concerted efforts from educators, employers, and policymakers to create spaces where autistic individuals can thrive. Only through tailored support systems, flexible learning and work environments, and the active involvement of families and professionals can autistic individuals achieve their full potential and attain the independence and career fulfillment they aspire to.