

EBU In Action – Episode 1: Connected and Autonomous Vehicles: challenges and opportunities

Intro

[Music]

(Neven) Welcome to the new podcast of European Blind Union, and you are now listening to the first episode of the EBU In Action podcast. This is a space in which many issues related to visually impaired persons in Europe are discussed. My name is Neven Milivojevic, and here with me, I have my colleague and co-host Paweł Masarczyk. Hello, Paweł. Dzień dobry.

(Paweł) Dzień dobry, Neven. Hello. I don't know if I can reciprocate linguistically. Hej. Hejsan? [laughter]

(Neven) That's perfect Swedish. Welcome to our show. Tell us, who are you, Paweł?

(Paweł) So as you said, my name is Paweł Masarczyk. I am from Poland, and some of the more frequent listeners to the productions of the EBU might know me already from EBU Access Cast. I'm a podcaster and a radio host and a blind person, of course. And what about you, Neven? Tell us a little bit about yourself.

(Neven) Well, I'm most known in Sweden as I'm a former director of advocacy at the Swedish Association of Blind and Partially Sighted. I've also been a local politician in Sweden for many years and also teaching at Uppsala University, but within EBU, I had the honour of hosting the PARVIS Project podcast, which was a project we had a year ago. So anyway, that's enough about me. I'm partially sighted myself and I'm really honoured that together with you, Paweł, being able to do this show today.

(Paweł) Likewise, I hope we can bring a lot of interesting content to you. So let's talk about what we are going to present to you today.

(Neven) Yes, we are going to do a follow up on EBU's last activities in the field of advocacy and campaigning. And we can tell you that there have been a lot of things going on the last months.

(Paweł) That's great to hear. Also on the menu today, we have an interview with two people who on the behalf of European Blind Union

were involved in the PASCAL project, Frida Kühl and Erwin Denninghaus. PASCAL was a project about connected and autonomous vehicles. So with a little bit of luck, we'll find out how soon it will be before blind people can drive cars.

(Neven) And in the end of the show, we are going to have a section we call "Correspondent Section" and there we will go to Italy to see what's happening in the Italian movement of visually impaired, and we are going to speak to Francesca Sbianchi from the Italian Union of the Blind and Partially Sighted.

(Paweł) Yes, that sounds like a lot of subjects. So let's start with this.

(Neven) Absolutely. With no further to add, let's begin.

What's new at the EBU

[section jingle]

(Neven) So let us take a look of what's been going on at EBU and which are its main activities currently. We now welcome our colleague Nacho Lopez. Hello, Nacho. Buenos dias.

(Nacho) Buenos dias, Neven. I am very good. How are you?

(Neven) I'm very well, thank you. So tell us, who are you first?

(Nacho) Well, I'm the external communications officer of EBU since June. I've been tasked with dealing with the main pillars of EBU's external communications since I came in; and well, here I am having a little but very warm chat with all of you.

(Neven) Thank you so much for that. So we are going to have a little news section where we want to hear a little more about what's going on in the EBU. So please let us start, Nacho. What do you have to tell us?

(Nacho) Well, first, I will start speaking about the end of the PARVIS project. After two years, this raising awareness project reaches its end. During this period, EBU has partnered with nine of its national members to highlight the proper implementations of the UNCRRPD. Overall, this initiative has promoted the essence of the convention through info sessions, podcasts, videos, or workshops. A final webinar on non-discrimination in the access to information was hosted in mid-October, as a result of which EBU drafted a declaration in which we urged public authorities and private companies to make information accessible for visually impaired people in Europe.

(Neven) That sounds very, very important work. Now tell me, I'm a little curious, what were the countries involved in this PARVIS project?

(Nacho) As I said, there are nine countries, quite a good list, and those countries are Spain, Germany, France, Slovakia, Sweden, the Netherlands, Montenegro, Lithuania, and Portugal. So all national members of those countries were involved also in the development of PARVIS.

(Neven) I see. Okay, so what's more going on in EBU then?

(Nacho) Yeah, here we have also the advocacy work of EBU around the Treaty of Marrakesh, the list of European countries that have signed the Marrakesh Treaty grows after Armenia signed the agreement in June. Other European countries like Albania or North Macedonia are also showing signs of intention to join the treaty. Meanwhile, the European Blind Union has requested information about its implementation to its EU members, which it would like to have ready before the European Commission's evaluation of the EU's Marrakesh Treaty Directive by October 2023. The aim is to find out what difference the Marrakesh Treaty has really made to date regarding the availability of books and other materials to blind and partially sighted people within the EU.

(Neven) Well, I'm curious already now, I mean, are there any facts, any information about what our members say about this, or we have to wait until next year to know more?

(Nacho) Yes, we will have to wait as we're in the process of collecting data regarding this issue.

(Neven) Okay, so, but I know that EBU is doing advocacy around other things too, so tell us a little more about your advocacy work.

(Nacho) Sure, especially around the Creative Europe Programme. According to the European Blind Union, the EU Creative Europe Programme MEDIA branch for 2021 to 2027 still lacks three incentives for promoting accessible films for blind and partially sighted people. Namely, there is no sign that the provision of audio description and audio subtitling effectively count among the award criteria for media funding. In order to set a measurable goal in terms of accessibility, EBU has recommended that at least 25% of media funded films should include these features.

(Neven) But do you know anything about if any of the countries involved are more progressive than others in this context?

(Nacho) Well, EBU has seen good practices in countries like Germany and the UK, and EBU is currently also in the process of gathering more good practices across Europe.

(Neven) Wow, wonderful. Well, we are very grateful and I think this is a very interesting section to have a small newsflash section where we know what's going on within the EBU. If we may, we will welcome you back to our future episodes to hear more on what's going on in EBU. So, thank you very much, Nacho.

(Nacho) Thank you very much to you, Neven.

(Neven) So, Paweł, do you have any reflections about what's going on in the EBU? It seems to be a lot of things going on.

(Paweł) Yes, indeed. It's always uplifting to hear about all the activities undertaken for the benefit of blind and partially sighted people in Europe. Of interest to me is especially the Marrakesh Treaty and the Creative Europe programme, because as a former student of linguistics, I can appreciate how difficult it is to obtain works in a different language and to enjoy culture that you sometimes have to work on for your courses but also for your private enjoyment. So, I hope the Marrakesh Treaty will progress further and also I hope that in the future there will be a greater exchange of audio description among countries, because currently, if I would like to see a Swedish movie, I will also need to learn Swedish so I can consume the Swedish audio description and it shouldn't be like that. So, I really hope that by working together, EBU, EU and persons with disabilities at large will cause this kind of momentum where the audio description will be available universally regardless of linguistic abilities.

(Neven) Yes, you're very, very right. Okay, so, Paweł, then I give the word to you. Let's move on in the show.

The status of CAV's in Europe – reflections from the PASCAL project

(Paweł) So, now that we heard from Nacho regarding the latest happenings at the European Blind Union, let's go straight into the main topic of our episode. Connected and autonomous vehicles, better known as CAV's, are the future of mobility landscape in Europe. So, obviously, blind people have a lot of questions. To find out more, we will hear from our experts and guests, Frida Kühl and Erwin Denninghaus. Welcome to the studio. Hello, Frida, how are you?

(Frida) Hi, thanks. I'm good. How are you, Paweł?

(Paweł) Everything fine, thank you. Great to hear from you. Erwin, how are you? Hello, welcome to the studio.

(Erwin) Hello. Well, I'm fine and I'm very glad that we have this interview today.

(Paweł) So am I and so will be our listeners. So, in order to introduce the subject, maybe tell us a little bit about who you are and what your involvement in the area of CAVs is. Frida, can we start with you, please?

(Frida) Yes, of course. So, I am German, but I am the CEO of an Estonian company, which is called Etelätär Innovation and we are focusing inside a research project that is called PASCAL. We ran or we oversaw the implementation of five real-world pilots of CAV's. And in that, we also included a lot of blind and partially sighted persons all across Europe.

(Paweł) And Erwin, you are also a part of the project. And what is your professional involvement in this area?

(Erwin) Well, I have been working for EBU as a technical advisor. I'm specialized or I'm dealing with the field of CAV's since 2009, as I was very interested in the possibilities of visually impaired people to drive cars. And at that time in the Netherlands, they had a project called bioptic driving and via this field, I got to the CAV's and I'm following this theme since 2009.

(Paweł) That sounds wonderful. And wonderful is also the promise that connected and autonomous vehicles might bring to all of us, but also to people with visual impairments. And Erwin, you probably know all about this. So, what is the current status of CAV's in Europe when it comes to the current technology, but also the legal aspects? Because in order for all this technology to drive us through the streets of Europe, we need them to be regulated by law so that it's all safe and ethical. What is the current state of affairs?

(Erwin) Well, the current state is that the industry is working hardly on the automatization of the cars. At the moment, I think Tesla has quite a lot of experience gathered, but the first one who is legally allowed to go partially autonomous is Mercedes-Benz in Germany. Some of the cars with the technical equipment are allowed to go on the highway up to 60 kilometres per hour without active participation of the driver. This is, at the moment, the most sophisticated possibility of autonomous driving. The EU has, on June 23rd of this year, risen the border limit for

autonomous driving up to 130 kilometres per hour, and this is what all the manufacturers try to reach; but there are a lot of problems to be solved to reach this, not only on highways, but to deal with the very complex traffic situations in the cities. Well, the clearer the situation is like on a highway with a wide stripe on the left side and a wide stripe on the right side and no pedestrians and no bicycles. The systems are able to steer a car at the moment, but in the cities, it's still very, very difficult. And we just heard that VW has stopped a project with Ford, where they have invested five billion euros up to now, but they were not successful, so they invest awful lots of money in autonomous cars and autonomous and connected driving. As it is a future market, no one can dare to be not in the game.

(Paweł) So this is the legal and technological status. It sounds like there is a lot to be worked on still and there is a lot that the industry is still trying to figure out. So maybe, Frida, you can explain a little bit more about this concept of connectedness and automation. Is it connected and autonomous or connected versus autonomous, and what do these terms actually mean? Because while autonomous is, I think, straightforward, maybe there is a lot we don't know about the aspect, but connected, it sounds like a lot of modern and smart technology. So what is it all about?

(Frida) Yeah, when we hear of a CAV, we always think of autonomous vehicle, like you said. But actually, the factor of connectivity is also quite important and I think especially relevant for especially blind and partially sighted people, because we started giving real-world examples to these terms to make them more interesting and easy to grasp. So if you know the application Waze or Google Maps, you know when you use a car, usually these...

(Paweł) Yes.

(Frida) Yeah, these platforms, they share, like, information on your trip with other drivers, so you are informed there's a traffic jam or there has been an accident, and that is connected information, this is a connected network. And then automation is, of course, things that are automated for the driver, which can enable people who cannot drive, for example, to drive a vehicle. This also includes, for example, children that don't have a driving license. So I see a very, very big potential, especially for this aspect of connectivity for persons with various disabilities, including also people in wheelchairs or paraplegic persons, you know, because this

allows us to give tailored information to each person on the transport system. So that is one aspect we looked into in one of our pilots.

(Paweł) So as it seems, there is plenty awaiting us and hopefully plenty we, as blind and partially sighted people, can profit from in the future. So Erwin, what was exactly EBU's role in the Pascal project? What did EBU contribute and what was the significance of the contribution there?

(Erwin) You know, the autonomous cars offer a very interesting opportunity to enlarge mobility of blind and visually impaired people. But on the other hand, there is quite a challenge to give blind and visually impaired people the opportunity to use them at all. Because one thing is to be able to buy an autonomous car and to let yourself drive with your own car. But what we see is that also public transport will switch to autonomous systems where there will be no bus drivers in the future and there will be no taxi drivers in the future because all these systems will be automated in the future. So, we have to find ways how blind and visually impaired people can communicate with this new options of mobility so they can be on the road as they are used to up to now, also in the future. And the role of EBU in this project was to make sure that the so-called vulnerable passengers will not be lost on the way to automated and connected cars.

(Paweł) And EBU did provide this testing, right? The expertise and facilitated, if I understand correctly, testing with the end users with visual impairments, right?

(Erwin) Yes, as we call it, mainly they dealt with the human-machine interface. How can people with disabilities communicate with these automatic systems in the future, and PASCAL had mainly two aspects. On one hand, they dealt with driver-assisting systems for normal cars, which are at the moment already able to brake by themselves, for example, or to stay on the lane. These are systems, some drivers use them, others do not, and what they wanted to find out was how popular are these assisting systems for drivers and how do they think about assisting systems that will take over the whole responsibility for the car. So, it was this study that concentrated mainly on aspects of acceptance of autonomous cars and, well, also people with disabilities are potential user group. And on the other hand, they are potential victims of autonomous cars when they are no longer able to communicate with drivers. Many things in traffic are nowadays just regulated between pedestrians and drivers and bicycle and drivers to drivers on a visual

basis by leaving people behind the steering wheel, and this aspect will no longer be active if you have an autonomous car and you have to find ways how to implement a technique, technical solutions to compensate the fact that there is no driver anymore.

(Paweł) So CAV's sound like still some time away, although parts of it are already being introduced and tested and piloted in different cities across Europe and the world. But the time when we need effective solutions to be able to travel independently is now, and for this we need strong pan-European policy. Frida, how would you evaluate it and what were the findings in the project? What was the state of the current policing when it comes to independent movement of people with disabilities in Europe and what would be the improvements that you would suggest should be undertaken for this to be even more effective for blind and partially sighted people?

(Frida) Yeah, so this is a good question. And I think it ties into what we talked about a little bit earlier about connectivity, because, yeah, in an ideal world, all public transport systems in Europe are accessible. And they should be accessible. But they are not. And this is due to economic differences across Europe. Not every public transport operator has the budget to adapt their entire system and a lot of accessibility comes down to a basic brick infrastructure that needs to work. If there is not a ramp for wheelchair users to access a station, then it's not accessible and no connectivity in the world can change that. But, in order to provide, like, connectivity that can increase the accessibility, you need on one hand a good working brick infrastructure. So, if your trains are working, that is a brick infrastructure. Like, the basic needs to work. And then connectivity can, in my opinion, bridge kind of temporarily the gap in a lot of accessibility questions, which is offering people the information to make a decision on if they want to travel or not. So, in my opinion, it would be a really big step to oblige public transport operators to publish basically the accessibility information on their system online in a homogenous way. And then each person, according to their needs, can access this information and can see if they can plan a trip or not. The advantage of such a policy would also be that you can access the system as a person who, for example, only speaks Spanish, but you want to travel in Sweden. You can access this information and it could be even translated for you, so, this for me is a very easy step that is already available for all public transport operators to, you know, to allow everyone to travel freely as a basic right.

(Paweł) So, there is plenty of ideas how to improve the situation and plenty of good practice examples. But what are the actual expectations of this technology of CAV's for blind and partially sighted people? What are the, so called, hopes and fears of people? What were the findings, Erwin?

(Erwin) What blind and visually impaired people fear, mainly, that turned out in a pilot study in Luxembourg that they might get harmed in vehicles where there is no social control by a driver. This is a very important aspect that has to be thought of in the further developments. There must be always the opportunity to get help from some external persons and there have to be systems to call for this help. Another difficult problem is how secure are blind people as pedestrians for the future? How can autonomous cars detect a blind person waiting at a crossing and stop? And how will they give a signal to that blind person that he or she can cross the street? This has two very important aspects that have to be considered in the further development. And of course, there are more. For example, if I order an autonomous taxi, how do I find the taxi I have ordered?

(Paweł) Elderly people and women are two of the vulnerable, let's say, groups that you have identified in this study. And these factors have been also included in the findings. Frida, could you explain a little bit more in which ways are these two groups of people, or maybe more vulnerable groups that you have identified, impacted when it comes to CAV's?

(Frida) We found, for example, that women are much, much more likely to feel uncomfortable to travel by themselves. So, we saw this across all of our testing activities. We asked them if they feel comfortable to travel alone or if they want to travel with someone else. And women are much more likely for this. So, we asked them directly why this is, because we were interested in seeing if maybe a CAV can bridge this concern. And indeed, a lot of them reported apart from, of course, experiencing injuries due to missing infrastructure, for example, falling downstairs or things like this in the metro systems. They also felt very uncomfortable using, for example, taxis or other kinds of modes of transport where they are alone with one other or two other humans. So, we asked them if they think that a robotaxi, an autonomous vehicle, would be a good alternative for them. And like you said earlier, like missing human support, I think Erwin mentioned it, is an issue that we need to bridge. But they were very receptive to this idea of having private means of transport, given

that there is enough support, for example, through an emergency system that they could call someone in an emergency and so on.

(Paweł) So these are the fears of blind people. But are blind people also partly excited or expecting this technology to come and revolutionize the way they travel? Or aren't we that far yet? Aren't we ready, socially?

(Erwin) Well, not all blind and visually impaired people are very keen on this new technology. But in the opposite to not disabled people, especially the older blind and visually impaired people that turned out in the studies in Italy, they are more open-minded against the CAV's than older people without disabilities. The young ones and the middle-aged, they are quite the same. But the older people are waiting for this technology to be mobile more than they are in the moment.

(Paweł) Okay. CAV's hold, as we hear, a lot of promises and also a lot of challenges to be solved for the years to come. So it's a technology that might still need some time to develop. It's not very easy. And it's not as easy as we would like it to be so that we can jump in an autonomous vehicle tomorrow and get wherever we need to get. But nevertheless, it's a development worth observing, and I'm sure the EBU will do their best to ensure that when the technology arrives, it's designed with blind and partially sighted people in mind. Thank you, Frida. Thank you, Erwin. Thank you for participating in our interview.

Neven, you've been listening to our conversation, I'm sure. How do you feel about connected and autonomous vehicles? Are you optimistic about them in general? Or do you think this is one of these future technologies that is still a work of science fiction, but well, maybe it will be something more useful in the future?

(Neven) No, I would say I'm quite optimistic. And I mean, I see it as a development which is going on. And what we have to do, I think, from the blind and partially sighted community is to, in a way, make sure that we don't come behind in this process, because the development is there, there will be this technology more developed in the future. And that's why I think this work we've been done in this Pascal project we heard of is very important, because we have to make sure that there are accessible tools and there are possibilities for us to be a part of this development. So I would say I'm quite optimistic. I don't know when it will be a reality. But yes, I am. But I am an optimist by nature.

(Paweł) Thank you very much, Neven. And I'm now reaching over to you with the virtual microphone. Let's hear from our next guest, right?

The Correspondent Section – what's new in Italy?

(Neven) Right. So we are finally moving to our correspondent's section, where we will get to know the situation of visually impaired persons around Europe. So today, we will talk to our friends from our Italian member, UICI, to check how things are going for the blind and partially sighted community over there. To do so, we now welcome Francesca Sbianchi. Buongiorno, Francesca. You are from the International Relations Office at UICI. Tell us a little more. Who are you? Welcome.

(Francesca) Yes. Hello. Nice to meet you. [laughter] Buon pomeriggio. I'm Francesca Sbianchi. How you said I'm involved in the coordination of the International Relations Office for UICI, (Uichi) . And I'm also part of the National Council of our organization and involved also in EBU activities.

(Neven) So let's go to the most important thing today when it comes to listening to you. We know all of us that you recently had elections in Italy. And of course, this is not a very unusual thing in Italy. But still, this government now you have is still considered to be maybe one of the most right wing governments in modern history. So I'm a little curious. Could you tell me, do you believe that this new government will change the lives for blind and partially sighted people in Italy, and if so, how?

(Francesca) It is a fact that we now have a right wing government in Italy and that will lead to a shift in the balance of power. But we are still not clear in detail what scenarios we will face. What is certain is that we will have to face severe economic crisis resulting from the pandemic and also the war in Ukraine. As UICI is an independent non-party association equidistant from all political parties, we will interact with this new government like any other government before. The new disability minister, Mrs. Alessandra Locatelli, who is a member of the same political party as the previous one, had cooperated locally also with DPO's; and on the 4th of November, she met already the two most important Italian Federations of Persons with Disabilities. UICI attaches great importance to many areas of work and we are sure that this new government will take care of our goals.

(Neven) That's great, that's great to hear. But tell me then, what are the most important things you want to influence the government of doing?

(Francesca) That's an important law that is the number 2027 of 2021 which delegated to the government the revision and reorganization of existing provisions on disability by means of one or more legislative

decrees. UICI and also the Italian disability movement call for these decrees to be issued and implemented in consultation with DPO's. We believe that the government should be in constant consultation with representative organizations of persons with disability at national and local level, also regarding the management of PNRR resources in the field of disability following the principle of nothing about us without us, that is the motto of EDF. In particular, as regards persons with visual impairment among the main priorities, UICI would like that the new government to address, I will mention some points. We think that there is a need for the adjustment of disability allowances and pensions to the increasing of cost of living. We also pay attention to the enhancement of the support services aimed at school inclusion, training and right to work. You know that in Italy we are inclusive school and this is a very important field of work for us. UICI will ask also government to take care tools and facilities to support people with severe disabilities or very serious disabilities. The new government should also implement policies to remove architectural, sensory, digital and cultural barriers in order to enhance the independent movement and also living.

(Neven) How is it, for instance, with a field of assistive technologies and so? Is that something you're going to work on?

(Francesca) Yes, of course. Our organization is involved in an important project called UICI Digital. An Amazon Alexa voice assistant device is being sent to UICI members, which will surely make their daily life easier, especially for those who are not technology experts or accustomed to the use of digital devices. The supply of by UICI of these devices is the beginning of a new way of obtaining useful services. We are, in fact, developing two skills to allow users to request a reading, for example, of a talking book or newspaper without having to resort to smartphones or PCs. We consider this is a digital revolution that finally puts technology at everyone's disposal. This is a very important project because we think that there's a need to ensure digital accessibility, especially regarding the public, also administration and also at large scale services companies. And this project goes on this area of work.

(Neven) Wonderful. Well, you know, I am sure you have very many things you are doing in your association in Italy, but today we just want you to have a short glimpse of what's current happening. And I think, do you have anything to add from Italy before we wrap up this section of correspondent speaking?

(Francesca) I think that there are many, many areas of work, like, for example, the new provision of the official list of services, processes and also aid, or to take care of persons that need caregivers. There are many, many areas of work and many challenges to try to solve.

(Neven) Well, thank you so, so much, Francesca. Mille grazie. It was wonderful to speak to you and I hope we see you soon in some situation soon. So all the very best to you.

(Francesca) It was a pleasure also for me and see you soon everywhere in Europe.

(Neven) Thank you.

So, Paweł, have you listened to Francesca, do you have any reflections on our Italian member?

(Paweł) So first of all, I would like to wish good luck and the best of success to the blind and partially sighted people in Italy and persons with disabilities in that country at large. It sounds like a very ambitious plan and a new government is always a revolution in which you don't know what's going to happen. You can estimate, you can have a vision, but the end effect is always to be evaluated with time. So I wish you a lot of luck and hopefully your example will be a good practice book for the next countries to follow in the quest to fulfill the requirements and the mission of the new EU strategy on disability. Also, I see that offering skills via voice assistance, especially in terms of access to literature and written word, is becoming a trend and more and more countries adopt it via different solutions. So hopefully in this space we will have more good practice examples soon. I can only say I'm very jealous because so far there is not a single voice assistant that is fully functional on loudspeakers in Poland and in the Polish language. So I can only watch from the side as it develops, hoping that one day people in my country will also receive this possibility. Because especially, as Francesca said, for non-technical people this is an actual revolution and probably the step they were waiting for to access the information they need at the right time.

Final words and outro

(Neven) Well, and finally, Paweł, I am really, really grateful to you for all your interesting reflections and hosting today. I just wonder, do you have any last reflection of today's show?

(Paweł) Well, this is a pilot so I can only hope that we provide a lot of interesting information. Now you will have your time to digest it and maybe suggest to us what is the topic that interests you the most. Because most of all, this is not about us, this is about you. And we don't want to talk about you without you. So do let us know what topic, technological, societal or otherwise, regarding blind and partially sighted people in Europe you would like to hear about from us in our next episodes.

(Neven) Thank you very much, Paweł. Dziękuję bardzo. And thank you also to all listeners who've been listening to the first episode of the EBU In Action podcast. I also want to say thank you very much to our sound master who is located geographically in the Netherlands and his name is Emiel Cornelisse. Excellent sound master, I have to say. And also, I would like to encourage you that if you would like to know a little more about EBU or about this podcast, you can find more information at the webpage of European Blind Union. You can also, in your pod player, subscribe to this podcast. So now there is nothing more to say than actually to wish you all a very Merry Christmas and a Happy New Year and wish you all welcome back in the new year to new episodes of EBU In Action.

(Voiceover)

EBU In Action is co-funded by the European Union.