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Legal aspects of mobility of people with special needs¹

Prawne aspekty mobilności osób ze specjalnymi potrzebami

Abstract

The publication concerns the analysis of national regulations in the field of transport and mobility of people with special needs, prepared based on the material (report) entitled *Analysis of regulations in the field of transport and mobility of people with special needs, together with recommendations for legislative changes in the Knowledge Centre's project on the accessibility of transport and mobility of people with special needs (CWoD)*, implemented under Priority Axis III Higher education for the economy and development, Action 3.5, universities' Comprehensive programs of the Knowledge Education Development Operational Program, co-financed by the European Union from the European Social Fund under the Knowledge Education Development Operational Program for 2014–2020 (no. POWR.03.05.00-00-CW07/20). The structure of the article includes an analysis of international and national regulations in the field of individual transport. That choice stems directly from the project proposal. Therefore, the main objective of the project, and therefore of this article, is to determine the recommendations and direction of changes in the regulations.

Keywords:

regulations, transport, mobility, people with special needs, CWoD project

Streszczenie

Publikacja dotyczy analizy przepisów krajowych w zakresie transportu i mobilności osób ze specjalnymi potrzebami, przygotowanej na podstawie materiału (raportu) pt. *Analiza przepisów prawnych w zakresie transportu i mobilności osób ze specjalnymi potrzebami wraz z zaleceniami zmian legislacyjnych w projekcie Centrum Wiedzy o dostępności transportu i mobilności osób ze specjalnymi potrzebami (CWoD)* realizowanym w ramach Osi Priorytetowej III Szkolnictwo wyższe dla gospodarki i rozwoju, Działanie 3.5, Programu kompleksowe uczelni Programu Operacyjnego Wiedza Edukacja Rozwój, współfinansowanego przez Unię Europejską z Europejskiego Funduszu Społecznego w ramach Programu Operacyjnego Wiedza Edukacja Rozwój na lata 2014–2020 (nr POWR.03.05.00-00-CW07/20). Struktura artykułu obejmuje analizę przepisów międzynarodowych i krajowych w zakresie transportu indywidualnego. Wybór takiego układu analizy wynikał bezpośrednio z wniosku projektowego. Zatem celem podstawowym projektu, a tym samym niniejszego artykułu, jest określenie rekomendacji i kierunku zmian w przepisach.

Słowa kluczowe:

regulacje, transport, mobilność, osoby o szczególnych potrzebach, projekt CWoD

JEL: L91

Introduction

In the last decade significant changes have been introduced regarding people with special needs (PSN), among the others, both in public and individual transport. They concerned many aspects

of life and also included candidates for drivers, as well as drivers and passengers with various mobility limitations (Bascom & Christensen, 2017). The analysis of the state of knowledge was based primarily on legal provisions and publications regarding the mobility of the PSNs, mainly taking into account persons with disabilities.

When analysing national regulations, it is worth referring to the initial legal acts of the United Nations (Declaration on the Rights of Persons with Disabilities; Kett et al., 2020) concerning people with disabilities. Without these rules, there would be no national rules. They consist of the following:

- Declaration on the Rights of Disabled Persons,
- Tallinn Guidelines for Action on Human Resources Development,
- Standard Principles on the Equalization of Opportunities for Persons with Disabilities (1993),
- Charter on the Rights of Disabled Persons,
- Convention on the Rights of Persons with Disabilities.

International legal acts are numerous and play an important role in the creation of legal acts of countries belonging to the European Union. They oblige Member States to change their internal regulations (Stasiak-Cieślak & Grabarek, 2022; Ucińska & Wnuk, 2018). When analysing international legal acts, their special nature should be taken into account because declarations and resolutions are of a directional nature and aim to include appropriate norms in the legal order or catalogue generally recognized norms. Such documents are often referred to in other international legal acts, including those with the binding force (Jankowska, 2011).

The guaranteed rights are also included in the Charter of Rights of Persons with Disabilities adopted by Poland in 1997. The provisions contained therein concern accessibility in its entirety. In accordance with the principles of sustainable (Świdorski, 2019) development of transport, people with special needs in public space, including, among others, elderly people, are an important group of passengers that should be taken into account in a special and systematic way.

The United Nations Convention on the Rights of Persons with Disabilities, adopted by the United Nations General Assembly on 13 December 2006, signed by the Polish government on 20 March 2007, and ratified on 6 September 2012, in the Article 20 entitled Mobility addresses the rights of people with disabilities, i.a. by "facilitating the mobility of people with disabilities, in a way and at a time of their choice and at an affordable price; facilitating access to high-quality mobility items, devices and assistive technologies; encouraging entities producing mobility items, devices and assistive technologies to take into account all aspects of the mobility of disabled people".

The Act of 19 July 2019 on ensuring accessibility for people with special needs (Journal of Laws of 2019, item 1696) specifies the basic requirements for ensuring accessibility. A person with special needs was defined for the first time as "one who,

due to certain characteristics or circumstances, must take action to reduce functional barriers in order to participate in various areas of life on an equal basis with other people". The concept of "reasonable accommodation", necessary to ensure the availability of products and services to an individual with special needs, has also been defined. Minimum requirements include architectural, digital and information and communication accessibility. This document created a legal and organizational framework for introducing the idea of accessibility in Poland, imposing obligations on public entities to ensure accessibility (Stasiak-Cieślak & Grabarek, 2022). The aim of the Act is to improve the functioning of citizens with special needs who otherwise might be marginalized due to their total or reduced level of ability due to age, illness and varying mobility (Dostępność; program "Dostępność plus").

The Strategy for People with Disabilities 2021–2030 describes, among the others, mobility (comprehensive support for individual mobility of people with disabilities). The document contains information on the obligatory analysis of legal provisions (Stasiak-Cieślak et al., 2022) and executive acts with a view to making changes in the scope of ensuring accessibility for people with disabilities.

Catalogue of regulations analysed as part of the Accessibility Knowledge Centre project

As part of the project *Knowledge Centre on accessibility to transport and mobility of people with special needs* (CWoD) implemented under Priority Axis III Higher Education for the Economy and Development, Action 3.5 Comprehensive programs for universities of the Operational Program Knowledge Education Development, co-financed by the European Union from the European Social Fund under the Knowledge Education Development Operational Program for 2014–2020 (No. POWR.03.05.00-00-CW07/20) the following normative acts were analysed:

- Act of 20 June 1997, Road Traffic Law (Journal of Laws of 2023, item 1047, as later amended).
- Act of 5 January 2011 on vehicle drivers (Journal of Laws of 2023, item 622, as later amended).
- Act of 6 September 2001 on road transport (Journal of Laws of 2022, item 2201, as later amended).
- Act of 16 December 2010 on public collective transport (Journal of Laws of 2022, item 1343, as later amended).

- Act of 21 March 1985 on public roads (Journal of Laws of 2023, item 645, as later amended).
- Act of 15 November 1984, Transport Law (Journal of Laws of 2020, item 8, as later amended).
- Regulation of the Minister of Health of 5 December 2022 on medical examinations of persons applying for driving licenses and the drivers (Journal of Laws of 2022, item 2503).
- Regulation of the Minister of Health of 8 July 2014 on psychological examinations of persons applying for driving licenses, drivers and persons performing work as drivers (Journal of Laws of 2014, item 937, as later amended).
- Regulation of the Minister of Infrastructure and Construction of 20 May 2016 on templates of documents confirming authorisation to drive vehicles (Journal of Laws of 2016, item 702, as later amended).
- Regulation of the Minister of Labour and Social Policy of 30 June 2014 on the template and procedure for issuing and returning parking cards (Journal of Laws of 2014, item 870, as later amended).
- Regulation of the Ministers of Infrastructure, Interior and Administration of 31 July 2002 on road signs and signals (Journal of Laws of 2019, item 2310, as later amended).
- Regulation of the Ministers of Infrastructure of 31 December 2002 on the technical conditions of vehicles and the scope of their necessary equipment (Journal of Laws of 2016, item 2022, as later amended).

For the purposes of this study, only some of the regulations analysed, regarding the mobility of people with special needs, were selected.

Acts – selected issues

The following chapter presents individual normative acts such as those included in the analysis of legal acts in the CWoD project.

Act of 20 June 1997, Road Traffic Law (Journal of Laws of 2023, item 1047, as later amended). The Road Traffic Law defines comprehensive traffic rules on public roads, residential and traffic zones, rules and conditions for admitting vehicles to traffic operation, requirements for all road users and rules for traffic control. The document specifies general technical conditions of the vehicles. The provisions of the Act also indicate that a vehicle participating in traffic must be constructed, equipped and maintained in such a way that its use does not endanger the safety of road users, does not violate traffic order on the road and does not cause any other danger. Vehicle devices and equipment

should operate efficiently and effectively. According to this Act, it is prohibited to place sharp objects inside and outside the vehicle that may cause bodily injury to vehicle occupants or other road users, as well as to use equipment and parts removed from vehicles, the reuse of which poses a threat to road traffic safety (Dziedziak i in., 2021).

Act of 5 January 2011 on vehicle drivers (Journal of Laws of 2023, item 622, as later amended). The Act describes the conditions necessary to drive a vehicle, specifying:

- 1) required age;
- 2) physical and mental fitness;
- 3) meeting the following conditions: the person has the ability to drive a vehicle in a safe manner that does not impede road traffic and has an appropriate document confirming having the right to drive a vehicle; undergoes driving training as part of the course; passes the state exam.

The Act also indicates that a physically disabled person may be a driver if he or she has obtained a medical certificate stating that there are no health contraindications to driving a vehicle.

A driving license, in accordance with the Act, may contain requirements or restrictions resulting from the driver's health condition and ability to drive a specific vehicle. These may include the use of vision correction or protection, hearing correction, prosthesis or orthopaedic splint. In some cases, the requirements may also concern the possibility of limited use of the vehicle or the need to modify or adapt the vehicle, as well as restrictions on the right to drive certain vehicles, additional vehicle markings, and the validity period of the driving license.

Article 3 of the Act states that a physically disabled person may be a driver if he or she has obtained a medical certificate stating that there are no health contraindications to driving a vehicle. The subject of examinations of candidates for drivers and the drivers with disabilities, performed by occupational medicine doctors with authorization to examine drivers, transport psychologists, doctors of other specialties (neurologist), and that of issuance of driving licenses with provisions on restriction codes and sub-codes requires a broader explanation. This study regarding the Act on vehicle drivers precedes the analysis and characteristics of detailed provisions (Regulation of the Minister of Health of 17 July 2014 on medical examinations of drivers and persons applying for driving licenses, Journal of Laws of 2022, item 2503); Regulation of the Minister of Infrastructure and Construction of 20 May 2016 on the templates of documents confirming authorisation to drive vehicles, Journal of Laws of 2016, item 702, as later amended), which will be performed in accordance with the project schedule.

The provision in the Act allows a person with a disability to drive a vehicle, provided that the person has obtained a medical certificate stating that there are no health contraindications to driving a vehicle. The details of the scope and methods of the examination performed by an occupational medicine doctor authorized to examine drivers are specified in the relevant regulation, to be analysed at a later stage of the project.

Art. 24. Driving lessons are held: "(2) in a vehicle appropriately adapted to the type of disability and meeting the conditions referred to in point (1a) and (b) – in the case of training a disabled person." The above term "appropriately adapted vehicle" raises a lot of controversy, primarily the following questions arise: what exactly does it mean and who determines that a vehicle is "appropriately adapted"?

These types of inaccuracies and legal loopholes raise many doubts and in the event of an inspection there are no criteria that would determine whether the technical solution used in the vehicle is correct and correctly applied. The topic of adaptive devices also deserves attention: currently, vehicles of people with disabilities are not subject to mandatory technical inspections after adaptation, nor are they subject to inspection by the police in the event of such an adaptation. Unfortunately, vehicle inspection stations and the police do not have the appropriate knowledge about adaptive devices, nor can they apply any appropriate regulations to make them subject to inspection, because there are none.

At this point, attention is drawn only to the provision regarding driving lessons, but it also concerns other issues that will be explained when analysing the detailed regulations.

Art. 66.2(3) the need for the necessary qualifications of commission members to ensure objective verification of the knowledge and skills of disabled persons taking the state examination. The Article 66 raises a very important issue, although it is worth paying attention to the term "appropriate qualifications", which is not specified anywhere in the regulations. What knowledge and skills should an examiner who examines a person with a disability have? Professional qualifications are a set of specialist knowledge and skills needed to work in a given position. Qualifications are usually confirmed by documents – diplomas, certificates and attestations. Qualifications are sets of expected educational outcomes: knowledge, skills and personal and social competences, enabling an individual to perform tasks independently. The constant development of civilization causes an increasing demand for highly qualified staff. Therefore, qualifications are of interest to education and efforts are being made to implement a new approach to this issue. The idea of lifelong

learning is based on the assumption that people's skills are important for the future of societies and that education acquired in youth is no longer sufficient.

Examiners taking part in various projects with the participation of non-governmental organizations can supplement their knowledge on a given topic, but they still do not obtain complete knowledge, instead learning only some basic principles of interpersonal communication regarding candidate drivers and drivers with disabilities. Another unacceptable situation is that examiners are unfamiliar with adaptive devices used in vehicles of people with disabilities.

Act of 6 September 2001 on road transport (Journal of Laws of 2022, item 2201, as later amended). The rights of passengers in road transport are set out in the provisions of Regulation (EU) No 181/2011 of the European Parliament and of the Council of 16 February 2011 concerning the rights of passengers in bus and coach transport and amending Regulation (EC) No 2006/2004. The provision regulates, among others, issues relating to: the rights of disabled persons and persons with reduced mobility, including the designation of terminals (bus stations) to provide assistance to these persons; the scope of assistance provided to disabled persons and persons with reduced mobility in designated terminals and on board the vehicle.

In national law, the rights of passengers in road transport are defined by the Road Transport Act and certain other acts. The Act contains regulations regarding: the designation of bus and coach stations where assistance will be provided to people with disabilities and persons with reduced mobility to the extent specified in the regulation; authorities to which a passenger can lodge a complaint in the event of a violation of the provisions of the Regulation; sanctions for such violations.

The provisions of the amended Road Transport Act, which entered into force on 3 April 2015, introduced a mandatory procedure for designating and adapting stations to provide assistance to disabled persons and persons with reduced mobility.

Adapting the bus station to provide assistance to disabled people and people with reduced mobility is the responsibility of local government units.

The Act of 16 December 2010 on public collective transport (Journal of Laws of 2022, item 1343, as later amended). In 2021, an expert opinion was prepared at the request of the Ministry of Infrastructure. The study defined objectives regarding the need for comprehensive implementation of the government's Accessibility Plus program in the context of public transport. As a result of the study, proposals were put forth for legislative actions aimed at improving the accessibility of public

transport in the context of the above-mentioned Action 6 of the government program.

The study was conducted as follows:

- 1) identification of applicable legal regulations regarding ensuring the accessibility of means of transport for people with disabilities;
- 2) analysis of legislative solutions adopted in selected European countries;
- 3) evaluation of the actual state of adaptation of Polish public transport to the needs of people with special needs;
- 4) evaluation – using the case study method – of the application of various solutions facilitating the movement of people with mobility limitations in particular transport means;
- 5) recommendations regarding tools and legislation aimed at ensuring accessibility to public transport for all user groups subject to mobility limitations.

The recommendations for legislative modifications can be found on pages 75 to 85 of the Expert Opinions in relation to Action 6 of the Accessibility Plus Program – Accessible public transport.

According to the author of the study, the regulations should be reflected in legislation. Extensive requirements for ensuring transport accessibility for people with motor impairment in Poland are regulated at the local government level by including agreed requirements in the conditions for tenders for the provision of services.

The Act on Public Transport should be the main mechanism for introducing the proposed changes to the law regulating the operation of public transport (NIK, 2018; Unsworth et al., 2021).

Act of 21 March 1985 on public roads (Journal of Laws of 2023, item 645, as later amended). Public roads and their surroundings must also meet technical conditions enabling their use by people with disabilities. There are provisions regarding this fact in the Regulation of the Minister of Infrastructure of 24 June 2022 on technical and construction regulations regarding public roads (Journal of Laws 2022, item 1518), starting from the general wording in § 1, section 3.3. Within passenger service areas on public roads, in each set of parking spaces for passenger cars, there should be at least two parking spaces for cars of disabled people, specially marked and located close to the entrances to public buildings (§ 115, section 4). A drop of 2 cm to 15 cm in height between the pavement and the road, or other device used by disabled people, should be equipped with a ramp with a width of at least 0.90 m and an inclination of no more than 15%. For drops larger than 15 cm, ramps should be used (§ 115, section 5). A parking space for a disabled person's car should have dimensions of no less than 4.50 × 3.60 m (§ 116, section 4).

Moreover, under the Act on Public Roads, vehicles equipped with a parking card are exempt from paying fees for ferry crossings on public roads (Article 13, section 4, point 2). Pursuant to this Act, in the paid parking zone there must be designated spaces for vehicles equipped with a parking card (Article 13b, section 6, point 1), and in accordance with Art. 12a, when designating places for parking vehicles on public roads, in residential zones and traffic zones, parking spaces for vehicles equipped with a parking card are designated, and their number cannot be less than:

- 1 space – if the number of spaces is 6–15;
- 2 spaces – if the number of spaces is 16–40;
- 3 spaces – if the number of spaces is 41–100;
- 4% of the total number of spaces if the total number of places is more than 100.

Act of 15 November 1984, Transport Law (Journal of Laws of 2020, item 8, as later amended). Transport law contains regulations relating to the transport of persons and goods by the carriers. Transport law describes obligations and liability for violation of transport conditions. The carrier must make every effort to comply with the timetable and agreed route. It is necessary to ensure an appropriate level of safety for passengers.

Regulations – selected issues

The following chapter presents lower-level normative acts, such as regulations, that fall within the scope of the analysis of legal acts in the CWoD project.

Regulation of the Minister of Health of 5 December 2022 on medical examinations of persons applying for driving licenses and the drivers (Journal of Laws of 2022, item 2503). The regulation specifies extensive conditions and procedures for conducting a medical examination to determine the presence or absence of health contraindications to driving of persons applying for driving licenses and the drivers. Annex No. 1 to the regulation – the declaration regarding the health condition – contains data of the person subject to medical examination, instructions for completing the questionnaire, and data regarding the health condition. The document is completed by a person using self-assessment of his or her health condition. The statement must be consistent with the facts and is subject to criminal liability.

Annex No. 1 to the Regulation of the Minister of Infrastructure and Construction of 20 May 2016 on templates of documents confirming authorisation to drive vehicles (Journal of Laws of 2016, item 702, as later amended) presents a set of codes and sub-codes that describe restrictions on the use of driving

licenses. The obligation to specify the codes applies both to occupational medicine doctors authorized to examine drivers and to vehicle users themselves, for reasons such as their own safety and that of other people moving in public spaces.

An authorized doctor should have additional qualifications referred to in Art. 77 section 1 point 3 letter b of the Act on vehicle drivers. The minister responsible for health matters, in consultation with the minister responsible for transport, will determine, by way of a regulation: additional qualifications referred to in Art. 77 section 1.3(b); entities authorized to train doctors in the field of driver examinations and the framework program for their training; the need to ensure an appropriate level of qualifications of an authorized doctor and his/her additional knowledge.

As additional qualifications referred to in Art. 77 section 1.3(b) of the Act on vehicle drivers, the specializations in the following fields of medicine are recognised: industrial, railway, aviation, maritime and tropical, sports, general, family or internal diseases; successful completion of driver testing training. The training includes theoretical and practical classes, totalling at least 60 hours, in the field of: legal basis for certification on driving ability; principles of medical certification regarding fitness to drive; testing methodology for the organs of vision, hearing and balance, and the nervous system; evaluation of physical and mental ability to drive vehicles within the scope specified in § 4 section 1; the issue of alcoholism and the impact of substances that act similarly to alcohol; road accidents.

Regulation of the Minister of Infrastructure and Construction of 20 May 2016 on templates of documents confirming authorisation to drive vehicles (Journal of Laws of 2016, item 702, as later amended). An important element influencing the selection of appropriate adaptive devices that help people with limited mobility to drive properly and safely is medical examination competently and reliably conducted by an occupational medicine doctor authorized to examine drivers. Training for adjudicators in this area should be carried out at least once a year due to changes in regulations. The development of automotive technologies is also dynamic, which allows for greater adaptability. The cooperation of a doctor, a driving instructor and an adapter should begin the process of selecting the appropriate adaptation for a given person. The interdisciplinarity and comprehensiveness of automotive services will fully determine the needs and possibilities. The team of advisors should have appropriate knowledge and experience in serving clients with disabilities. The doctor should take into account many variables and predict those factors

that, due to the given disorders, may change over time and directly or indirectly affect safe driving. The scope of the examination seems to be precise, but it is impossible to predict exceptional situations as it enters areas rather unknown to doctors, namely the technical and mechanical possibilities of replacing movement restrictions with various specific device systems.

Currently, there is no obligation to train doctors in this area. With the development of technology, one should consider preparing a training program for this professional group in the field of accessibility of devices for people with disabilities, taking into account the selection of appropriate requirement codes. When performing medical examinations of drivers, attention should be paid to the codes and sub-codes included in the certificate, which introduce restrictions on the use of driving licenses.

Regulation of the Minister of Labour and Social Policy of 30 June 2014 on the template and procedure for issuing and returning parking cards (Journal of Laws of 2014, item 870, as later amended). The regulation specifies the procedure for issuing and returning parking cards for individuals and institutions. Adjudicating teams assess whether a person with a disability has significantly limited ability to move independently. When having a parking card, a person with a disability can easily access public buildings. Pursuant to the regulations, a person holding a valid parking card is obliged to expose it in a visible place of the car that is to be parked in the so-called blue envelope. Information about the card number and its expiry date should be visible. The owner's personal data: name, surname, photograph are located on the other side of the document. It is important that the privileges guaranteed by the card only apply when the vehicle is parked "in an envelope" – this being related with the fact that a person with disabilities, having reduced mobility, may drive or be driven to a given place, or be collected therefrom, by an accompanying person. However, any situations in which unauthorized persons use such parking card are unacceptable.

Regulation of the Ministers of Infrastructure, Interior and Administration of 31 July 2002 on road signs and signals (Journal of Laws of 2019, item 2310, as later amended). The Regulation indicates that a disabled person with reduced mobility, driving a motor vehicle, and the driver of a vehicle transporting a person with reduced mobility, provided that he or she exercises particular caution, may not comply with the prohibitions expressed by the signs: B-1, B-3, B-3a, B-4, B-10, B-35, B-37, B-38 and B-39. The T-29 plate placed under the sign D-18 or D-18b informs about the space intended for a motor vehicle of an

authorized disabled person with reduced mobility and for the driver of the vehicle carrying the same. Sign P-24 "space for a disabled person's vehicle" means that the parking space is intended for a motor vehicle of an authorized person. The provisions contained in the Regulation constitute a sufficient catalogue of privileges applied in road traffic for persons with reduced mobility.

Regulation of the Minister of Infrastructure of 31 December 2002 on the technical conditions of vehicles and the scope of their necessary equipment (Journal of Laws of 2016, item 2022, as later amended). The regulation determines technical conditions of bicycles, mopeds, wheelchairs and harness vehicles (§ 53, § 54 and § 56), but does not describe device systems that are installed in vehicles driven by people with disabilities. The regulations do not specify the extent to which changes can be made to the steering and braking systems so that the use of the vehicle in road traffic is consistent with the technical assumptions and road safety conditions.

In 2010, at the Motor Transport Institute, and the Type-approval Testing Department, the following criteria for the evaluation of devices under the name WT-ITS 90/10-ZBH were developed, based on the technical conditions (WT):

- installation of the device must not impede the operation of factory units; failure to meet the requirements for control devices such as: brake pedal, accelerator pedal and steering system is allowed, provided that alternative solutions are provided;
- the device should be designed to minimize operating errors;
- the device should be prepared in such a way as to minimize the likelihood of sudden braking or accelerating;
- the device should be operational with all available functions.

This document contains the necessary criteria describing the viability of installing the devices in accordance with applicable safety procedures.

The above provisions do not specify the information relating to the catalogue of adaptive devices and information about the technical capabilities of the disabled driver's vehicle. The lack of legal regulations in this area may lead to adaptations of the vehicle inconsistent with technical requirements. The only legal act that contains terms related to vehicle adaptation is Annex No. 1 to the Regulation of the Minister of Infrastructure and Construction of 24 February 2016 on the issuance of documents confirming the right to drive a vehicle (Journal of Laws of 2016, item 231, as later amended) specifying the numerical designations of codes and sub-codes.

Discussion

Accessibility means providing people with disabilities with, among other things, access to common means of transport, including technology, as well as to devices and services. This is intended to counteract marginalization and social exclusion. Enabling access, on equal terms, to a number of services should be a priority for government institutions in creating a systemic approach to the problem of mobility. Recognizing and eliminating obstacles and barriers in terms of accessibility should also include legal provisions that regulate our functioning in society. In the last century, barriers to reduced mobility were largely ignored because so was this social group. This attitude changed along with socio-economic changes, which also resulted from the communication of the interested parties themselves. EU member states are endeavouring to counteract exclusion through a number of changes related to the socio-professional functioning of people with disabilities. Analysis of changes is also carried out by various institutions, providing data that are intended to modify, among others, legal provisions. The authors of the study also point out that the main sources of data on disability are: national censuses of population and housing, surveys, administrative registers, Labour Force Surveys (LFS), European Health Interview Surveys (EHIS).

The aforementioned task concerning the analysis of regulations, carried out as part of the project, was the primary goal of describing the situation that we face daily when fulfilling our needs that involve mobility. The prepared characteristics were deliberately deprived of critical values in order to be able to present the actual (objective) state. Within each description, the author of the report only proposes recommendations for changes to legislative acts. The following chapter, therefore, indicates the most important directions of changes in order to create open access to mobility for people with disabilities.

Conclusions

The analysis of legal acts revealed the need to verify and introduce changes in the field of individual transport of people with special needs, including people with disabilities. The scope of changes should include:

- 1) The Act of 20 June 1997, Road Traffic Law (Journal of Laws of 2023, item 1047, as later amended) recommends, among the others:
 - supplementing the catalogue of terms with other devices currently used by people with

- special needs, e.g. electric module, other electrical devices will complement the catalogue of devices available on the market;
- supplementing the catalogue of terms: person with disabilities; parking card;
 - addition of: an item of equipment or a part related to a person with a disability – this means a system, a separate technical unit or a part not subject to the technical requirements for type-approval tests, intended for use in a vehicle;
 - registering parking cards in the Central Register of Vehicles and Drivers in order to verify them during inspections;
 - addition to: low-speed vehicles;
 - it is requested to immediately enter Art. 100f–100m to the Act on the introduction of parking card registration;
 - supplementing the provisions regarding the conditions of moving about by people with disabilities, e.g. on mobility scooters.
- 2) The Act of 5 January 2011 on vehicle drivers (Journal of Laws of 2023, item 622, as later amended) recommends:
- in accordance with Art. 24, clarification of the term "vehicle appropriately adapted to the type of disability" (Dahuri & Hussain, 2018);
 - preparing appropriate provisions regarding adaptive devices in the vehicles of candidate drivers and drivers with disabilities, and the technical conditions they must meet;
 - preparing and conducting mandatory training for Vehicle Control Stations' diagnosticians, Police and City Guard;
 - ensuring appropriate qualifications of the members of commission appointed by the director of the provincial road traffic centre regarding examination of persons with disabilities, knowledge on proper communication with a examined person with a disability.
- 3) The Regulation of the Minister of Health of 5 December 2022 on medical examinations of persons applying for driving licenses and the drivers (Journal of Laws of 2022, item 2503) recommends improving the qualifications of persons from units authorized to conduct training for occupational medicine doctors in the scope of authorizations to examine drivers, and

related to the authorizations of persons with disabilities to drive vehicles.

- 4) The regulation of the Minister of Infrastructure and Construction of 20 May 2016 on the templates of documents confirming authorisations to drive vehicles (Journal of Laws of 2016, item 702, as later amended) recommends absolute removal/exclusion of the code 107 (requires adaptation of the vehicle to the type of illness) from the restriction codes' list. The term in question does not exist in the EU nomenclature. Code 107 is a "dead" code applicable only in the territory of the Republic of Poland. The driving license should, in position 12, have currently functioning codes that will allow proper identification of the adaptive devices used in the vehicles of drivers with disabilities in the EU. Failure to comply with the codes entered in the driving license may entail unpleasant consequences for the driver. Any discrepancy between a driving license and a person or vehicle is treated as if the driver was driving without an appropriate licence.
- 5) In the Regulation of the Ministers of Infrastructure of 31 December 2002 on the technical conditions of vehicles and the scope of their necessary equipment (Journal of Laws of 2016, item 2022, as later amended), it is recommended to include Chapter 14. Additional conditions for vehicles equipped with adaptive devices for drivers with disabilities: a vehicle adapted to be driven by a person with a disability should meet the conditions specified in the annex to the regulation.

As part of the study, a catalogue of available publications on individual mobility of people with disabilities was also prepared. Supplementary literature will allow access to the examinations without unnecessary analysis of databases. It should also be emphasised that, apart from dedicated provisions on accessibility, no legal acts relating to transport have used the slogan "universal design" where it would be justified (Stasiak-Cieślak & Grabarek, 2023; Zajac, 2006). It is therefore worth conducting a comprehensive analysis, in cooperation with relevant departments, in order to supplement the provisions which would substantially complement the basic provisions recommended in this study.

Notes/Przypisy

¹ The study was prepared on the basis of material from the project entitled: *Knowledge Centre on accessibility to transport and mobility of people with special needs* implemented under Priority Axis III Higher education for the economy and development, Action 3.5 Comprehensive programs of universities from the Operational Program – Knowledge Education Development, co-financed by the European Union from the European Social Fund under the Knowledge Education Development Operational Program for 2014–2020 (no. POWR.03.05.00-00-CW07/20). Article financed by ITS.

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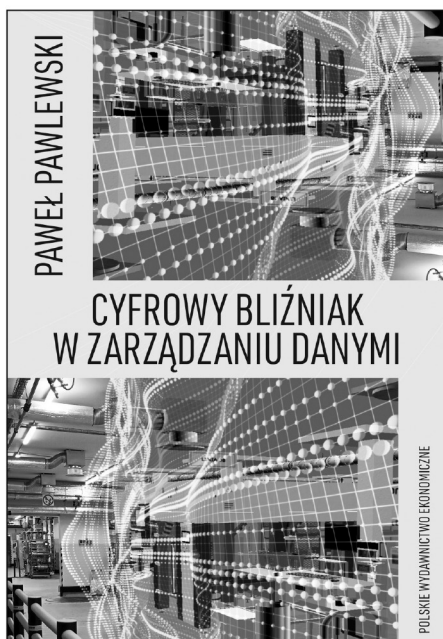
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**PAWEŁ PAWLEWSKI**

CYFROWY BLIŹNIAK W ZARZĄDZANIU DANymi

Książka jest podsumowaniem badań i doświadczeń autora z ostatnich kilkunastu lat w obszarze modelowania i symulacji procesów wytwarzania i intralogistyki. Celem działań naukowych i praktycznych autora jest zbudowanie takiego podejścia, aby wychodząc od tego, co się dzieje w fabryce, umożliwić budowanie modeli symulacyjnych fabryk w taki sam sposób, jak budowane są (projektowane i wdrażane) procesy w fabrykach rzeczywistych. Zburzyłyby to istniejące w tej chwili bariery we

wdrażaniu technologii symulacyjnych w praktyce działania fabryk, dając inżynierom produkcji i logistom narzędzia, które są dla nich jasne i zrozumiałe, a przede wszystkim potrzebne. Jednocześnie podejście takie wymaga wiedzy o zasobach fabryki, o procesach, o sytuacjach, w których są podejmowane decyzje, o logice podejmowania decyzji, jej skutkach wyrażających się wynikami działania fabryki. To wszystko powoduje, że przestaje się mówić jedynie o modelowaniu symulacyjnym, pomagającym rozwiązać pojawiający się problem, a zaczyna się rozważać obszar dużo szerszy, który w tej chwili oznaczany jest pojęciem cyfrowego bliźniaka fabryki.

Więcej informacji na: www.pwe.com.pl